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ANNEX 2

ANNEX

to the

Commission Delegated Regulation (EU) .../...

supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

ANNEX II

Technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

1. AGRICULTURE AND FORESTRY

1.1. Growing of non-perennial crops

Description of the activity

Growing of plants that do not last for more than two growing seasons, including for the purpose of seed production.

The activity is classified under NACE code A1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹, the best available science for

¹ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports² and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³ or rely on blue or green infrastructure⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The activity complies with the following criteria:</p> <ul style="list-style-type: none"> (a) permanent grassland is maintained⁵; (b) wetland and peatland are appropriately protected⁶; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons⁷; (d) minimum land management under tillage, including on slopes⁸. <p>Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ⁹, are not converted.</p>
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² Assessments Reports on Climate Change: Impacts, Adaptation and Vulnerability published periodically by the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change produces, <https://www.ipcc.ch/reports/>.

³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁵ In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013

⁶ In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

⁷ In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013

⁸ In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013

<p>(3) Sustainable use and protection of water and marine resources</p>	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders¹⁰.</p> <p>Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.</p>
<p>(4) Transition to a circular economy</p>	<p>Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging or net wraps are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and other suitable wastes (which may include pesticide washings) are used for agricultural benefit.</p>
<p>(5) Pollution prevention and control</p>	<p>The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients¹¹.</p> <p>Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular:</p> <ul style="list-style-type: none"> (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. <p>Nitrogen applications are to be based on a balance between:</p>

⁹ In accordance with Article 29, paragraphs 4 and 5 of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

¹⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹¹ See Directives 2009/128/EC and 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

	<p>(a) the expected nitrogen requirements of the crops;</p> <p>(b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to:</p> <ul style="list-style-type: none"> (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. <p>Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha⁻¹ per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC.</p> <p>Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used¹².</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter¹³.</p> <p>Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats.</p> <p>Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value¹⁴, including highly biodiverse grassland spanning more than one hectare that is one of the following:</p> <ul style="list-style-type: none"> (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is

¹² In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

¹³ Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

¹⁴ Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

	<p>species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority.</p> <p>For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas):</p> <ul style="list-style-type: none"> (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated. (b) activities are carried out in accordance with the conclusions of an appropriate assessment¹⁵, where applicable, and necessary mitigation measures¹⁶ have been implemented accordingly¹⁷. <p>The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014¹⁸. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.</p>
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1.2. Growing of perennial crops

Description of the activity

Growing of plants that lasts for more than two growing seasons, either dying back after each season or growing continuously, including for the purpose of seed production.

The activity is classified under NACE code A1.2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

¹⁵ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁶ Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

¹⁷ Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

¹⁸ Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁰ or rely on blue or green infrastructure²¹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

¹⁹ Such as Copernicus services managed by the European Commission.

²⁰ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

<p>(1) Climate change mitigation</p>	<p>The activity complies with the following criteria:</p> <ul style="list-style-type: none"> (a) permanent grassland is maintained²²; (b) wetland and peatland are appropriately protected²³; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons²⁴; (d) minimum land management under tillage, including on slopes²⁵; (e) no bare soil in most sensitive period²⁶. <p>Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ²⁷, are not converted.</p>
<p>(3) Sustainable use and protection of water and marine resources</p>	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders²⁸.</p> <p>Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.</p>
<p>(4) Transition to a circular economy</p>	<p>Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging, net wraps, are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and other suitable wastes, including pesticide washings are used for</p>

²² In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013.

²³ In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

²⁴ In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013.

²⁵ In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

²⁶ In accordance with GAEC 7 of Annex II to Regulation (EU) No 1306/2013

²⁷ In accordance with Article 29, paragraphs 4 and 5, of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

²⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	agricultural benefit.
(5) Pollution prevention and control	<p>The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients²⁹.</p> <p>Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular:</p> <ul style="list-style-type: none"> (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. <p>Nitrogen applications are to be based on a balance between:</p> <ul style="list-style-type: none"> (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: <ul style="list-style-type: none"> (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. <p>Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha⁻¹ per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC.</p> <p>Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used³⁰.</p>

²⁹ See Directives 2009/128/EC and 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

³⁰ In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

(6) Protection and restoration of biodiversity and ecosystems	<p>Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter³¹.</p> <p>Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats.</p> <p>Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value³², including highly biodiverse grassland spanning more than one hectare that is one of the following:</p> <ul style="list-style-type: none"> (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. <p>For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas):</p> <ul style="list-style-type: none"> (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated; (b) activities are carried out in accordance with the conclusions of an appropriate assessment³³, where applicable, and necessary mitigation measures³⁴ have been implemented accordingly³⁵. <p>The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014³⁶. Species on the list of invasive alien species of Union concern and alien species on Member States national</p>
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³¹ Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

³² Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

³³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁴ Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

³⁵ Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

³⁶ Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

1.3. Livestock production

Description of the activity

Raising (farming) and breeding of all animals, except aquatic animals. Livestock production excludes farm animal boarding and care and production of hides and skins from slaughterhouses.

The activity is classified under NACE code A1.4 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

³⁷ Such as Copernicus services managed by the European Commission.

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁸ or rely on blue or green infrastructure³⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The activity complies with the following criteria:</p> <ul style="list-style-type: none"> (a) permanent grassland is maintained⁴⁰; (b) wetland and peatland are appropriately protected⁴¹; (c) arable stubble is not burnt, except where an exemption has been granted for plant health reasons⁴²; (d) minimum land management under tillage, including on slopes⁴³. <p>Continuously forested areas, namely land spanning more than one hectare with trees higher than five meter and a canopy cover of between 10 and 30% or able to reach those thresholds in situ⁴⁴, are not converted.</p>
(3) Sustainable use and protection of	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a</p>

³⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴⁰ In accordance with GAEC 1 of Annex II to Regulation (EU) No 1306/2013.

⁴¹ In accordance with GAEC 2 of Annex II to Regulation (EU) No 1306/2013.

⁴² In accordance with GAEC 3 of Annex II to Regulation (EU) No 1306/2013.

⁴³ In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

⁴⁴ In accordance with Article 29, paragraphs 4 and 5, of Directive (EU) 2018/2001. This requirement applies to all perennial crop production, whether for biofuels, bioliquids or biomass, or for food or feed uses.

water and marine resources	<p>water use and protection management plan, developed in consultation with relevant stakeholders⁴⁵.</p> <p>Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant competent for the activity, specifying conditions to avoid significant impact on water bodies.</p>
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients⁴⁶.</p> <p>Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular:</p> <ul style="list-style-type: none"> (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. <p>Nitrogen applications are to be based on a balance between:</p> <ul style="list-style-type: none"> (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: <ul style="list-style-type: none"> (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure;

⁴⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁴⁶ See Directive 2009/128/EC and Directive 91/676/EEC and Statutory Management. Requirement 10 of Regulation (EU) No 1306/2013.

	<p>(iv) additions of nitrogen compounds from chemical and other fertilisers.</p> <p>Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha⁻¹ per hectare or different amounts in accordance with the conditions set out in Annex II to Directive 91/676/EEC.</p> <p>Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used⁴⁷.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter⁴⁸.</p> <p>Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats.</p> <p>Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value⁴⁹, including highly biodiverse grassland spanning more than one hectare that is one of the following:</p> <ul style="list-style-type: none"> (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. <p>For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas):</p> <ul style="list-style-type: none"> (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for

⁴⁷ In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

⁴⁸ In accordance with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

⁴⁹ Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001.

	<p>which the protected area have been designated.</p> <p>(b) activities are carried out in accordance with the conclusions of an appropriate assessment⁵⁰, where applicable, and necessary mitigation measures⁵¹ have been implemented accordingly⁵².</p> <p>The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014⁵³. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.</p>
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1.4. Afforestation

Description of the activity

Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use or not used. Afforestation implies a transformation of land use from non-forest to forest, in accordance with the Food and Agriculture Organisation of the United Nations ('FAO') definition of afforestation⁵⁴, where forest means a land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest⁵⁵.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

⁵⁰ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁵¹ Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

⁵² In accordance with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

⁵³ Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

⁵⁴ Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use from non-forest to forest (*FAO Global Resources Assessment 2020. Terms and definitions*. <http://www.fao.org/3/I8661EN/i8661en.pdf>).

⁵⁵ Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use, *FAO Global Resources Assessment 2020. Terms and definitions*. <http://www.fao.org/3/I8661EN/i8661en.pdf>

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁷ or rely on blue or green infrastructure⁵⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁵⁶ Such as Copernicus services managed by the European Commission.

⁵⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

<p>(1) Climate change mitigation</p>	<p><i>Afforestation plan</i></p> <p>1.1. The area on which the activity takes place is covered by a long-term (10 years or more) afforestation plan developed prior to the start of the activity, until this area matches the definition of forest used in the national greenhouse gas inventory or where not available, is in line with the FAO definition of forest.</p> <p>The afforestation plan contains all elements required by the national law relating to environmental impact assessment of afforestation or, where such a national law does not exist, the plan includes detailed information on the following:</p> <ul style="list-style-type: none">(a) description of the area according to its gazetting in the land registry;(b) site preparation and its impacts on pre-existing carbon stocks, including soils and above-ground biomass, in order to protect land with high carbon stock;(c) management goals, including major constraints;(d) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;(e) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;(f) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;(g) measures deployed to maintain the good condition of forest ecosystems;(h) consideration of social issues (preservation of landscape, consultation of concerned stakeholders)(i) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to
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ensure protection against residual risks.

1.2. The activity follows the best afforestation practices laid down in national law, or, where no such best afforestation practices have been laid down in national law, the activity complies with one of the following criteria:

- (a) the activity complies with Delegated Regulation (EU) No 807/2014;
- (b) the activity follows the “Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC”⁵⁹;
- (c) the management systems associated with the activity in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.4. All DNSH criteria relevant to afforestation are addressed in the afforestation plan.

1.5. The afforestation plan provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.6. At the beginning of the activity and every five years thereafter, the compliance of the activity with the afforestation plan is verified by the relevant national competent authorities, or by an independent third-party certifier, such as forest certification scheme, at the request of national authorities or of the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

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Forest Europe Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC adopted by the MCPFE Expert Level Meeting on 12-13 November, 2008 and by the PEBLDS Bureau on behalf of the PEBLDS Council on 4 November, 2008, https://www.foresteurope.org/docs/other_meetings/2008/Geneva/Guidelines_Aff_Ref_ADOPTED.pdf.

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁰ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers.</p> <p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard⁶¹. The activity complies with the relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p>

⁶⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶¹ The WHO Recommended Classification of Pesticides by Hazard (version 2019), <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>.

The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following:

- (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species;
- (b) excluding the use or release of invasive species;
- (c) excluding the use of non-native species unless it can be demonstrated that:
 - (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience);
 - (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions;
- (d) ensuring the maintenance of soil structure and fertility and soil biodiversity;
- (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions;
- (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;
- (g) ensuring the diversity of associated habitats and species linked to the forest;
- (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

The use of whole tree stems for bio-energy is avoided, especially where viable, unsubsidised markets exist for their use in carbon-retaining materials or products, except where it has been authorised at the national or regional levels in exceptional circumstances, including for phytosanitary reasons or to reduce fire risks, in accordance with applicable law.

1.5. Rehabilitation and restoration of forests

Description of the activity

The activity meets the definitions of rehabilitation and restoration of forests established by national law. Where national law do not contain such a definition, the activity meets a definition with broad agreement in the peer-reviewed scientific literature for specific countries.

The activity implies no change of land use and occurs on degraded land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest⁶².

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶³, the best available science for

⁶² Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>.

⁶³ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁴ or rely on blue or green infrastructure⁶⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm

(1) Climate change mitigation	<p><i>Forest management plan or equivalent instrument</i></p> <p>1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of ‘forest area with long-term forest management plan’⁶⁶.</p> <p>The forest management plan or the equivalent instrument covers a period of 10 years or more, is continuously updated and describes a forest management system by providing detailed information on the</p>
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⁶⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

⁶⁶ Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised. FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>.

following:

- (a) management goals, including major constraints⁶⁷;
- (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;
- (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;
- (d) definition of the area according to its gazetting in the land registry;
- (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;
- (f) measures deployed to maintain the good condition of forest ecosystems;
- (g) consideration of social issues (preservation of landscape, consultation of stakeholders)
- (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

- (a) the forest management matches the applicable national definition of sustainable forest management,
- (b) the management systems in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive,

1.3. The management systems associated with the activity in place

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Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

	<p>complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.</p> <p>1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan or equivalent instrument.</p> <p>1.5. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.</p> <p>1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.</p> <p>The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.</p>
(3) Sustainable use and protection of water and marine resources	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders⁶⁸.</p>
(4) Transition to a circular economy	<p>The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.</p>
(5) Pollution prevention and control	<p>The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers.</p>

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As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants , the Rotterdam Convention on the Prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard. The activity complies with the relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p> <p>The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following:</p> <ul style="list-style-type: none"> (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: <ul style="list-style-type: none"> (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted

	<p>to the local conditions</p> <p>(f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;</p> <p>(g) ensuring the diversity of associated habitats and species linked to the forest;</p> <p>(h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.</p>
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1.6. Reforestation

Description of the activity

The activity meets the definition of reforestation established by national law. Where national law does not contain such a definition, the activity meets the FAO definition of reforestation⁶⁹ or the FAO definition of naturally regenerating forest⁷⁰. The activity implies no change of land use and occurs on degraded land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest⁷¹. For the purpose of Regulation 2020/853, the category ‘reforestation’ applies in cases following extreme events (such as wind throws, fires), and not as part of normal, legally binding obligation to reforest after harvesting.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

⁶⁹ Re-establishment of forest through planting and/or deliberate seeding on land classified as forest. FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>

⁷⁰ FAO definition of “naturally regenerating forests”. Forest predominantly composed of trees established through natural regeneration.

⁷¹ Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷³ or rely on blue or green infrastructure⁷⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm

⁷² Such as Copernicus services managed by the European Commission.

⁷³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	<p><i>Forest management plan or equivalent instrument</i></p>
	<p>1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent plan, as referred to in the FAO definition of forest area with long-term forest management plan⁷⁵.</p> <p>The forest management plan or the equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information:</p> <ul style="list-style-type: none"> (a) management goals, including major constraints⁷⁶; (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle; (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution; (d) definition of the area according to its gazetting in the land registry; (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (f) measures deployed to maintain the good condition of forest ecosystems; (g) consideration of social issues (preservation of landscape, consultation of stakeholders) (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing,

⁷⁵ Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised. FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>.

⁷⁶ Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

	<p>reducing and controlling the risks and measures deployed to ensure protection against residual risks.</p> <p>1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:</p> <ul style="list-style-type: none"> (a) the forest management matches the applicable national definition of sustainable forest management, (b) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive <p>1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.</p> <p>1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan.</p> <p>1.5. The forest management plan or equivalent instrument provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.</p> <p>1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.</p> <p>The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.</p>
(3) Sustainable use and protection of water and marine	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in</p>

resources	accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁷⁷ .
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	<p>The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers.</p> <p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard⁷⁸. The activity complies with the relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p> <p>The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with</p>

⁷⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁷⁸ The WHO Recommended Classification of Pesticides by Hazard (version 2019), <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>.

national and local provisions, including the following:

- (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species;
 - (b) excluding the use or release of invasive alien species;
 - (c) excluding the use of non-native species unless it can be demonstrated that:
 - (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience);
 - (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions;
 - (d) ensuring the maintenance of soil structure and fertility and soil biodiversity;
 - (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions;
 - (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;
 - (g) ensuring the diversity of associated habitats and species linked to the forest;
 - (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.
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1.7. Improved forest management

Description of the activity

The activity meets the definition of improved forest management set out in national law. Where national law does not contain such a definition, the activity refers to management interventions in forests done for the purpose of climate change mitigation, demonstrated through a climate benefit analysis. The activity assumes no change in land use and occurs on land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest⁷⁹.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁸⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

⁷⁹ Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>.

⁸⁰ Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions⁸¹ or rely on blue or green infrastructure⁸² to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.
-

Do no significant harm

(1) Climate change mitigation	<p><i>Forest management plan or equivalent instrument</i></p> <p>1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan, as referred to in the FAO definition of ‘forest area with long-term forest management plan’⁸³.</p> <p>The forest management plan or equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information:</p> <ul style="list-style-type: none">(a) management goals, including major constraints⁸⁴;(b) general strategies and activities planned to reach the
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⁸¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁸² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

⁸³ Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.
FAO Global Resources Assessment 2020. Terms and definitions.
<http://www.fao.org/3/I8661EN/i8661en.pdf>.

⁸⁴ Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

management goals, including expected operations over the whole forest cycle;

- (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;
- (d) definition of the area according to its gazetting in the land registry;
- (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;
- (f) measures deployed to maintain the good condition of forest ecosystems;
- (g) consideration of social issues (preservation of landscape, consultation of stakeholders)
- (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

- (a) the forest management matches the applicable national definition of sustainable forest management,
- (b) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan.

1.5. The forest management plan or equivalent document provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved

	<p>area.</p> <p>1.5. At the beginning of the period and every 5 years thereafter, the compliance of forest management with the forest management plan or equivalent document, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.</p> <p>The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.</p>
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁸⁵ .
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	<p>The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers.</p> <p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely</p>

⁸⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards for activities addressing environmental degradation risks related to preserving water quality and avoiding water stress in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>hazardous’) or Ib (‘highly hazardous’) in the WHO Recommended Classification of Pesticides by Hazard⁸⁶. The activity complies with the relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p> <p>The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following:</p> <ul style="list-style-type: none"> (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: <ul style="list-style-type: none"> (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;

⁸⁶ The WHO Recommended Classification of Pesticides by Hazard (version 2019), <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>.

	<p>(g) ensuring the diversity of associated habitats and species linked to the forest;</p> <p>(h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.</p>
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1.8. Conservation forestry

Description of the activity

The activity covers forest management activities with the objective of preserving one or more habitats or species. The activity assumes no change in land category and occurs on land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest⁸⁷.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

⁸⁷ Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁸⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions⁸⁹ or rely on blue or green infrastructure⁹⁰ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.
-

Do no significant harm

(1) Climate change mitigation	<p style="text-align: center;"><i>Forest management plan or equivalent instrument</i></p> <p>1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national regulation does not define a forest management plan, as referred to in the FAO definition of ‘forest area with long-term forest management plan’⁹¹.</p> <p>In particular, the forest management plan or the equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following</p>
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⁸⁸ Such as Copernicus services managed by the European Commission.

⁸⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁹⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

⁹¹ Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised, FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>

detailed information:

- (a) management goals, including major constraints;
- (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;
- (c) definition of the forest habitat context, main forest tree species and those intended and their extent and distribution; in accordance to the local forest ecosystem context;
- (d) definition of the area according to its gazetting in the land registry;
- (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;
- (f) measures deployed to maintain the good condition of forest ecosystems;
- (g) consideration of social issues (preservation of landscape, consultation of stakeholders);
- (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2. The forest management plan or the equivalent instrument:

- (a) shows a primary designated management objective⁹² that consists in protection of soil and water⁹³, conservation of biodiversity⁹⁴ or social services⁹⁵ based on the FAO definitions;
- (b) follows biodiversity-friendly practices such as closer-to-nature-forestry;

⁹² The primary designated management objective assigned to a management unit (FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>).

⁹³ Forest where the management objective is protection of soil and water. (FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>).

⁹⁴ Forest where the management objective is conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas. (FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>).

⁹⁵ Forest where the management objective is social services. (FAO Global Resources Assessment 2020. Terms and definitions. <http://www.fao.org/3/I8661EN/i8661en.pdf>)

(c) includes an analysis of:

- (i) impacts and pressures on habitat conservation and diversity of associated habitats;
- (ii) condition of harvesting minimizing soil impacts;
- (iii) other activities that have an impact on conservation objectives, such as hunting and fishing, agricultural, pastoral and forestry activities, industrial, mining, and commercial activities.

1.3. The sustainability of the forest management systems as documented in the plan referred to in point 1.1 is ensured through one of the following approaches:

(a) the forest management matches the national definition of sustainable forest management, if any;

(b) the management systems in place show compliance with the forest sustainability criteria as defined in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.4. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.5. All DNSH relevant to conservation forestry criteria are addressed in the forest management plan or equivalent instrument.

1.6. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.7. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by either the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁹⁶ .
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	<p>The activity does not use pesticides or fertilisers.</p> <p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard⁹⁷. The activity complies with the relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p> <p>The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with</p>

⁹⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁹⁷ The WHO Recommended Classification of Pesticides by Hazard (version 2019), <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>.

national and local provisions, including the following:

- (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species;
 - (b) excluding the use or release of invasive alien species;
 - (c) excluding the use of non-native species unless it can be demonstrated that:
 - (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience);
 - (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions;
 - (d) ensuring the maintenance of soil structure and fertility and soil biodiversity;
 - (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions;
 - (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones;
 - (g) ensuring the diversity of associated habitats and species linked to the forest;
 - (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.
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2. ENVIRONMENTAL PROTECTION AND RESTORATION ACTIVITIES

2.1. Restoration of wetlands

Description of the activity

Restoration of wetlands, with wetlands meaning land matching the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)⁹⁸ international definition of wetland⁹⁹. The concerned area matches the Union definition of

⁹⁸ The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf.

⁹⁹ *Wetlands include a wide variety of inland habitats such as marshes, wet grasslands and peatlands, floodplains, rivers and lakes, and coastal areas such as saltmarshes, mangroves, intertidal mudflats*

wetlands, as provided in the Commission Communication on the wise use and conservation of wetlands¹⁰⁰.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006, but relates to class 6 of the statistical classification of environmental protection activities (CEPA) established by Regulation (EU) No 691/2011.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁰¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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and seagrass beds, and coral reefs and other marine areas no deeper than six meters at low tide, as well as human-made wetlands such as dams, reservoirs, rice paddies and wastewater treatment ponds and lagoons. An Introduction to the Ramsar Convention on Wetlands, 7th ed. (previously The Ramsar Convention Manual). Ramsar Convention Secretariat, Gland, Switzerland.

¹⁰⁰ Communication from the Commission to the Council and the European Parliament of 29 May 1995 on wise use and conservation of wetlands, COM(95) 189 final.

¹⁰¹ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹⁰² or rely on blue or green infrastructure¹⁰³ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹⁰⁴ .
(4) Transition to a circular economy	Peat extraction is minimised.
(5) Pollution prevention and control	<p>The use of pesticides is minimised and alternative approaches or techniques, which may include non-chemical alternatives to pesticides are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pest and diseases. of the activity does not use fertilisers.</p> <p>Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and</p>

¹⁰² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁰³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

¹⁰⁴ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO recommended Classification of Pesticides by Hazard¹⁰⁵. The activity complies with relevant national implementing law on active ingredients.</p> <p>Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas.</p> <p>There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law.</p> <p>The plan referred to in point 1 (Restoration Plan) of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following:</p> <ul style="list-style-type: none"> (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species, (b) exclude the use or release of invasive species.

3. MANUFACTURING

3.1. Manufacture of renewable energy technologies

Description of the activity

Manufacture of renewable energy technologies.

The activity is classified under NACE codes C.25, C.27, C.28 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

¹⁰⁵ The WHO Recommended Classification of Pesticides by Hazard (version 2019), <https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1>

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁰⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹⁰⁷ or rely on blue or green infrastructure¹⁰⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

¹⁰⁶ Such as Copernicus services managed by the European Commission.

¹⁰⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁰⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹⁰⁹ .
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: <ul style="list-style-type: none"> (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening ¹¹⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards ¹¹¹ . Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in- or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

¹⁰⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹¹⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹¹¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ¹¹² , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ¹¹³ are implemented.
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3.2. Manufacture of equipment for the production of hydrogen

Description of the activity

Manufacture of equipment for the production of hydrogen electrolysis technologies.

The activity is classified under NACE codes C.25, C.27, C.28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹¹⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

¹¹² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹¹³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

¹¹⁴ Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹¹⁵ or rely on blue or green infrastructure¹¹⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹¹⁷ .
(4) Transition to a circular economy	<p>The activity assesses availability of and, where feasible, adopts techniques that support:</p> <ul style="list-style-type: none"> (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in

¹¹⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹¹⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

¹¹⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹¹⁸ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹¹⁹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹²⁰, where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹²¹ are implemented.</p>

3.3. Manufacture of low carbon technologies for transport

Description of the activity

Manufacture of the following low carbon transport technologies:

- (a) trains, passenger coaches and wagons that have zero direct (tailpipe) CO₂ emissions;
- (b) trains, passenger coaches and wagons that have zero direct tailpipe CO₂ emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode);
- (c) urban, suburban and road passenger transport devices, where the direct (tailpipe) CO₂ emissions of the vehicles are zero;

¹¹⁸ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹¹⁹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹²⁰ In accordance with Directives 2009/147/EC 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹²¹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

- (d) personal mobility devices with a propulsion that comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity;
- (e) vehicles of category M₁ and N₁¹²² with:
 - (i) (i) until 31 December 2025: specific emissions of CO₂, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, lower than 50gCO₂/km (low- and zero-emission light-duty vehicles);
 - (ii) (ii) from 1 January 2026: specific emissions of CO₂, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero;
- (f) vehicles of category L¹²³ with tailpipe CO₂ emissions equal to 0g CO_{2e}/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013;
- (g) vehicles not dedicated to transporting fossil fuels with a technically permissible maximum laden mass not exceeding 7,5 tonnes that are ‘zero-emission heavy-duty vehicles’ as defined in Regulation (EU) 2019/1242;
- (h) vehicles not dedicated to transporting fossil fuels with a technically permissible maximum laden mass exceeding 7,5 tonnes that are zero-emission heavy-duty vehicles’, as defined in Article 3, point (11), of Regulation (EU) 2019/1242 or ‘low-emission heavy-duty vehicles’ as defined in Article 3, point (12) of that Regulation;
- (i) inland passenger water transport vessels that:
 - (i) have zero direct (tailpipe) CO₂ emissions;
 - (ii) until 31 December 2025, are hybrid vessels using at least 50% of zero direct (tailpipe) CO₂ emission fuel mass or plug-in power for their normal operation;
- (j) inland freight water transport vessels, not dedicated to transporting fossil fuels, that:
 - (i) have zero direct (tailpipe) CO₂ emission;
 - (ii) until 31 December 2025, have direct (tailpipe) emissions of CO₂ per tonne kilometre (gCO₂/tkm), calculated (or estimated in case of new vessels) using the Energy Efficiency Operational Indicator¹²⁴, 50 % lower than the average reference value for emissions of CO₂ defined for heavy duty vehicles (vehicle subgroup 5- LH) in accordance with Article 11 of Regulation (EU) 2019/1242;
- (k) sea and coastal freight water transport vessels not dedicated to transporting fossil fuels, that:
 - (i) have zero direct (tailpipe) CO₂ emissions;
 - (ii) until 31 December 2025, are hybrid vessels that use at least 50% of zero direct (tailpipe) CO₂ emission fuel mass or plug-in power for their normal operation;
 - (iii) until 31 December 2025, and only where it can be proven that the vessels are used exclusively for provision of coastal services designed to enable modal shift of freight currently transported by land to sea, the vessels that have direct

¹²² As defined in Article 4(1), points (a) and (b) of Regulation (EU)2018/858.

¹²³ As defined in Article 4 of Regulation (EU) No 168/2013.

¹²⁴ The Energy Efficiency Operational Indicator is defined as the ratio of mass of CO₂ emitted per unit of transport work. It should be a representative value of the energy efficiency of the ship operation over a consistent period which represents the overall trading pattern of the vessel. Guidance on how to calculate this indicator is provided in the document MEPC.1/Circ. 684 from IMO.

(tailpipe) CO₂ emissions, calculated using the International Maritime Organization (IMO) Energy Efficiency Design Index (EEDI)¹²⁵, 50 % lower than the average reference CO₂ emissions value defined for heavy duty vehicles (vehicle subgroup 5-LH) in accordance with Article 11 of Regulation (EU) 2019/1242;

- (iv) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022¹²⁶;
- (l) sea and coastal passenger water transport vessels, not dedicated to transporting fossil fuels, that:
 - (i) have zero direct (tailpipe) CO₂ emissions;
 - (ii) until 31 December 2025, hybrid vessels use at least 50% of zero direct (tailpipe) CO₂ emission fuel mass or plug-in power for their normal operation;
 - (iii) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022.

The activity is classified under NACE codes C.27.1.1, C.27.9.0, C.29.1.0, C.29.2.0, C.30.1.1, C.30.1.2, C.30.2.0, C.30.9.1, C.30.9.2, C.30.9.9 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate
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¹²⁵ Energy Efficiency Design Index, <http://www.imo.org/fr/MediaCentre/HotTopics/GHG/Pages/EEDI.aspx>.

¹²⁶ As agreed by the Marine Environment Protection Committee of the International Maritime Organization on its seventy-fourth session.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹²⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹²⁸ or rely on blue or green infrastructure¹²⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹³⁰ .
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support:

¹²⁷ Such as Copernicus services managed by the European Commission.

¹²⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹²⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

¹³⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>(a) reuse and use of secondary raw materials and re-used components in products manufactured;</p> <p>(b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured;</p> <p>(c) waste management that prioritises recycling over disposal, in the manufacturing process.</p>
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹³¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹³².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹³³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹³⁴ are implemented.</p>

3.4. Manufacture of energy efficiency equipment for buildings

Description of the activity

Manufacture of one or more of the following energy efficiency equipment (products and their components) for buildings:

- (a) windows with U-value lower or equal to 0,7 W/m²K;

¹³¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹³² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹³³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹³⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

- (b) doors with U-value lower or equal to 1,2 W/m²K;
- (c) external cladding with U-value lower or equal to 0,5 W/m²K;
- (d) roofing systems with U-value lower or equal to 0,3 W/m²K;
- (e) household appliances falling into the top two energy efficiency classes in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council ;
- (f) lighting appliances rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;
- (g) space heating and domestic hot water systems rated in the top energy labelling class in accordance with Regulation (EU) 2017/1369;
- (h) cooling and ventilation systems rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;
- (i) presence and daylight controls for lighting systems;
- (j) heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex;
- (k) façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation;
- (l) energy-efficient building automation and control systems for commercial buildings;
- (m) zoned thermostats and devices for the smart monitoring of the main electricity loads for residential buildings, and sensing equipment;
- (n) products for heat metering and thermostatic controls for individual homes connected to district heating systems and individual flats connected to central heating systems serving a whole building.

The activity is classified under NACE codes C16.23, C17.11, C22.23, C23.11, C23.20, C23.31, C23.32, C23.43, C25.11, C25.12, C25.21, C25.29, C25.93, C27.31, C27.32, C27.33, C27.40, C27.51, C28.11, C28.12, C28.13, C28.14, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected

lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹³⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹³⁶ or rely on blue or green infrastructure¹³⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

¹³⁵ Such as Copernicus services managed by the European Commission.

¹³⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹³⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders ¹³⁸ .
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: <ul style="list-style-type: none"> (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening ¹³⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards ¹⁴⁰ . Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ¹⁴¹ , where applicable, has

¹³⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹³⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹⁴⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹⁴¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

been conducted and based on its conclusions the necessary mitigation measures¹⁴² are implemented.

3.5. Manufacture of other low carbon technologies

Description of the activity

Manufacture of low carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market, where the life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU or ISO 14067:2018 or ISO 14064-1:2018 and where the quantified life-cycle GHG emission savings are verified by an independent third party.

The activity is classified under NACE codes from C10 to C33, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁴³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

¹⁴² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

¹⁴³ Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹⁴⁴ or rely on blue or green infrastructure¹⁴⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹⁴⁶ .
(4) Transition to a circular economy	<p>The activity assesses availability of and, where feasible, adopts techniques that support:</p> <ul style="list-style-type: none"> (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in

¹⁴⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁴⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

¹⁴⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹⁴⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹⁴⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹⁴⁹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹⁵⁰ are implemented.</p>

3.6. Manufacture of cement

Description of the activity

Manufacture of cement clinker, cement or alternative binder.

The activity is classified under NACE code C23.51 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

¹⁴⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

¹⁴⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹⁴⁹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁵⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁵¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹⁵² or rely on blue or green infrastructure¹⁵³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

¹⁵¹ Such as Copernicus services managed by the European Commission.

¹⁵² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁵³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	<p>Greenhouse gas emissions¹⁵⁴ from the cement production processes are:</p> <p>(a) for grey cement clinker, lower than [xxx¹⁵⁵] tCO₂e per tonne of grey cement clinker;</p> <p>(b) for cement or alternative hydraulic binder, from grey clinker, lower than [xxx¹⁵⁶] tCO₂e per tonne of cement or alternative binder manufactured.</p>
(3) Sustainable use and protection of water and marine resources	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders¹⁵⁷.</p>
(4) Transition to a circular economy	<p>N/A</p>
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the production of cement, lime and magnesium oxide¹⁵⁸. No significant cross-media effects occur¹⁵⁹.</p> <p>For manufacture of cement employing hazardous wastes as alternative fuels, measures are in place to ensure the safe handling of waste.</p>

¹⁵⁴ Calculated in accordance with Regulation (EU) 2019/331.

¹⁵⁵ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁵⁶ [the median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 multiplied by the clinker to cement ratio (0.65).]

¹⁵⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹⁵⁸ Commission Implementing Decision 2013/163/EU of 26 March 2013 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for the production of cement, lime and magnesium oxide (OJ L 100, 9.4.2013, p. 1).

¹⁵⁹ See Best Available Techniques Reference Document (BREF) on Economics and Cross-Media Effects, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/ecm_bref_0706.pdf.

(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹⁶⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹⁶¹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹⁶², where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹⁶³ are implemented.</p>
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3.7. Manufacture of aluminium

Description of the activity

Manufacture of aluminium through primary alumina (bauxite) process or secondary aluminium recycling.

The activity is classified under NACE code C24.42 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability

¹⁶⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹⁶¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹⁶² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁶³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁶⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions¹⁶⁵ or rely on blue or green infrastructure¹⁶⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

(1) Climate change mitigation	<p>The activity manufactures one of the following:</p> <ul style="list-style-type: none"> (a) primary aluminium where the sum of direct greenhouse gas emissions and indirect greenhouse gas emissions¹⁶⁷ is lower than [xxx¹⁶⁸] per tonne of aluminium manufactured.
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¹⁶⁴ Such as Copernicus services managed by the European Commission.
¹⁶⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.
¹⁶⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

	(b) secondary aluminium.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹⁶⁹ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the non-ferrous metals industries ¹⁷⁰ . No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening ¹⁷¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards ¹⁷² . Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

¹⁶⁷ Indirect greenhouse gas emissions are the life-cycle greenhouse gas emissions produced from the generation of the electricity used for the manufacturing of primary aluminium

¹⁶⁸ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 plus the DNSH to climate change mitigation criterion for electricity generation (270gCO₂/kWh) multiplied by the average energy efficiency of aluminium manufacturing (15.5 MWh/t Al)].

¹⁶⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹⁷⁰ Commission Implementing Decision (EU) 2016/1032 of 13 June 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the non-ferrous metals industries (OJ L 174, 30.6.2016, p. 32).

¹⁷¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹⁷² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹⁷³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹⁷⁴ are implemented.

3.8. Manufacture of iron and steel

Description of the activity

Manufacture of iron and steel.

The activity is classified under NACE codes C24.10, C24.20, C24.31, C24.32, C24.33, C24.34, C24.51 and C24.52 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁷⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

¹⁷³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁷⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

¹⁷⁵ Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based¹⁷⁶ or rely on blue or green infrastructure¹⁷⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The activity manufactures one of the following:</p> <ul style="list-style-type: none"> (a) iron and steel with greenhouse gas emissions¹⁷⁸ lower than the following values applied to the different manufacturing process steps: <ul style="list-style-type: none"> (i) hot metal = [xxx¹⁷⁹] tCO₂e/t product; (ii) sintered ore = [xxx¹⁸⁰] tCO₂e/t product; (iii) coke (excluding lignite coke) = [xxx¹⁸¹] tCO₂e/t product; (iv) iron casting = [xxx¹⁸²] tCO₂e/t product; (v) electric arc furnace (EAF) high alloy steel = [xxx¹⁸³] tCO₂e/t product;
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¹⁷⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁷⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

¹⁷⁸ Calculated in accordance with Regulation (EU) 2019/331.

¹⁷⁹ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁸⁰ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁸¹ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁸² [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁸³ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

	<p>(vi) electric arc furnace (EAF) carbon steel = [xxx¹⁸⁴] tCO₂e/t product.</p> <p>(b) steel in electric arc furnaces (EAFs) and at least 90 % of the iron content in the final products is sourced from scrap steel.</p>
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ¹⁸⁵ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for iron and steel production ¹⁸⁶ . No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹⁸⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹⁸⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

¹⁸⁴ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

¹⁸⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

¹⁸⁶ Commission Implementing Decision 2012/135/EU of 28 February 2012 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for iron and steel production (OJ L 70, 8.3.2012, p. 63).

¹⁸⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹⁸⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ¹⁸⁹ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ¹⁹⁰ are implemented.
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3.9. Manufacture of hydrogen

Description of the activity

Manufacture of hydrogen.

The activity is classified under NACE code C.20.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models¹⁹¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

¹⁸⁹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁹⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

¹⁹¹ Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions¹⁹² or rely on blue or green infrastructure¹⁹³ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.
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Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The activity complies with the life cycle GHG emissions savings requirement of 70 % relative to a fossil fuel comparator of 94g CO₂e/MJ as set out in Article 25(2) of Directive (EU) 2018/2001 of the European Parliament and of the Council¹⁹⁴ and Annex V to that Directive.</p> <p>Life cycle GHG emissions savings are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.</p> <p>Quantified life-cycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party.</p>
(3) Sustainable use and protection of water and marine resources	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders¹⁹⁵.</p>

¹⁹² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

¹⁹³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

¹⁹⁴ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

¹⁹⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.]No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening¹⁹⁶ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards¹⁹⁷.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment¹⁹⁸, where applicable, has been conducted and based on its conclusions the necessary mitigation measures¹⁹⁹ are implemented.</p>

3.10. Manufacture of carbon black

Description of the activity

Manufacture of carbon black.

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

¹⁹⁶ Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed. The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

¹⁹⁷ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

¹⁹⁸ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

¹⁹⁹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁰⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁰¹ or rely on blue or green infrastructure²⁰² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts,
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

²⁰⁰ Such as Copernicus services managed by the European Commission.

²⁰¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁰² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DHSH')

(1) Climate change mitigation	Greenhouse gas emissions ²⁰³ from the carbon black production processes are lower than [xxx ²⁰⁴] tCO ₂ e per tonne of product.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ²⁰⁵ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the: <ul style="list-style-type: none"> (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry²⁰⁶; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector²⁰⁷;

²⁰³ Calculated in accordance with Regulation (EU) 2019/331.

²⁰⁴ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²⁰⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

²⁰⁶ Best Available Techniques (BAT) Reference Document for the Large Volumes Inorganic Chemicals-Solids and Others industry, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvics_bref_0907.pdf

²⁰⁷ Commission Implementing Decision (EU) 2016/902 of 30 May 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for common waste water and waste gas treatment/management systems in the chemical sector (OJ L 152, 9.6.2016, p. 23).

	<p>(c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.]</p> <p>No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁰⁸ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁰⁹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²¹⁰, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²¹¹ are implemented.</p>

3.11. Manufacture of disodium carbonate

Description of the activity

Manufacture of disodium carbonate (soda ash).

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

²⁰⁸ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁰⁹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²¹⁰ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²¹¹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²¹², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²¹³ or rely on blue or green infrastructure²¹⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

²¹² Such as Copernicus services managed by the European Commission.

²¹³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²¹⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	Greenhouse gas emissions ²¹⁵ from the disodium carbonate (soda ash) production processes are lower than [xxx ²¹⁶] tCO ₂ e per tonne of product.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ²¹⁷ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in:</p> <ul style="list-style-type: none"> (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] <p>No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening ²¹⁸ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

²¹⁵ Calculated in accordance with Regulation (EU) 2019/331.

²¹⁶ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²¹⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

²¹⁸ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	<p>completed in accordance with equivalent national provisions or international standards²¹⁹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²²⁰, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²²¹ are implemented.</p>
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3.12. Manufacture of chlorine

Description of the activity

Manufacture of chlorine.

The activity is classified under NACE code C.20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

²¹⁹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²²⁰ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²²¹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²²², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²²³ or rely on blue or green infrastructure²²⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	Electricity consumption for electrolysis and chlorine treatment is equal or lower than 2,45 MWh per tonne of chlorine. Average direct greenhouse gas emissions of the electricity used for chlorine production is at or lower than 270 g CO2e/kWh.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

²²² Such as Copernicus services managed by the European Commission.

²²³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²²⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders ²²⁵ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in:</p> <ul style="list-style-type: none"> (a) the best available techniques (BAT) conclusions for the production of chlor-alkali²²⁶; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] <p>No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²²⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²²⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

²²⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

²²⁶ Commission Implementing Decision 2013/732/EU of 9 December 2013 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions, for the production of chlor-alkali (OJ L 332, 11.12.2013, p. 34).

²²⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²²⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ²²⁹ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ²³⁰ are implemented.
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3.13. Manufacture of organic basic chemicals

Description of the activity

Manufacture of:

- (a) high volume chemicals (HVC):
 - (i) acetylene;
 - (ii) ethylene;
 - (iii) propylene;
 - (iv) butadiene.
- (b) Aromatics:
 - (i) mixed alkylbenzenes, mixed alkylnaphthalenes other than HS 2707 or 2902;
 - (ii) cyclohexane;
 - (iii) benzene;
 - (iv) toluene;
 - (v) o-Xylene;
 - (vi) p-Xylene;
 - (vii) m-Xylene and mixed xylene isomers;
 - (viii) ethylbenzene;
 - (ix) cumene;
 - (x) biphenyl, terphenyls, vinyltoluenes, other cyclic hydrocarbons excluding cyclanes, cyclenes, cycloterpenes, benzene, toluene, xylenes, styrene, ethylbenzene, cumene, naphthalene, anthracene;
 - (xi) benzol (benzene), toluol (toluene) and xylol (xylenes)
 - (xii) naphthalene and other aromatic hydrocarbon mixtures (excluding benzole, toluole, xylole).
- (c) vinyl chloride;
- (d) styrene;

²²⁹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²³⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

- (e) ethylene oxide;
- (f) monoethylene glycol;
- (g) adipic acid.

The activity is classified under NACE code C20.14 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²³¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²³² or rely on blue or green infrastructure²³³ to the extent possible;

²³¹ Such as Copernicus services managed by the European Commission.

²³² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>GHG emissions²³⁴ from the organic chemicals production processes are lower than :</p> <ul style="list-style-type: none"> (a) for HVC: [xxx²³⁵] tCO₂e/t of HVC; (b) for aromatics: [xxx²³⁶] tCO₂e/t of aromatic; (c) for vinyl chloride: [xxx²³⁷] tCO₂e/t of vinyl chloride; (d) for styrene: [xxx²³⁸] tCO₂e/t of styrene; (e) for ethylene oxide/ethylene glycols: [xxx²³⁹] tCO₂e/t of ethylene oxide/glycol; (f) for adipic acid: [xxx²⁴⁰] tCO₂e/t of adipic acid.
(3) Sustainable use and protection of	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a</p>

²³³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

²³⁴ Calculated in accordance with Regulation (EU) 2019/331.

²³⁵ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²³⁶ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²³⁷ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²³⁸ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²³⁹ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²⁴⁰ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders ²⁴¹ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in:</p> <ul style="list-style-type: none"> (a) the best available techniques (BAT) conclusions for the production of large volumes organic chemicals²⁴²; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) the [best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] <p>No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁴³ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁴⁴.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

²⁴¹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

²⁴² Commission Implementing Decision (EU) 2017/2117 of 21 November 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the production of large volume organic chemicals (OJ L 323, 7.12.2017, p. 1).

²⁴³ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁴⁴ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ²⁴⁵ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ²⁴⁶ are implemented.
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3.14. Manufacture of anhydrous ammonia

Description of the activity

Manufacture of anhydrous ammonia.

The activity is classified under NACE code C.20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁴⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

²⁴⁵ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁴⁶ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

²⁴⁷ Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions²⁴⁸ or rely on blue or green infrastructure²⁴⁹ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.
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Do no significant harm ('DNSH')

(1) Climate change mitigation	The manufacturing of anhydrous ammonia has greenhouse gas emissions ²⁵⁰ lower than [xxx ²⁵¹] tCO ₂ e per tonne of anhydrous ammonia.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ²⁵² .
(4) Transition to a circular economy	N/A

²⁴⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁴⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

²⁵⁰ Calculated in accordance with Regulation (EU) 2019/331.

²⁵¹ [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²⁵² As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

<p>(5) Pollution prevention and control</p>	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in:</p> <ul style="list-style-type: none"> (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers²⁵³; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] <p>No significant cross-media effects occur.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>An Environmental Impact Assessment (EIA) or screening²⁵⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁵⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁵⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁵⁷ are implemented.</p>

²⁵³ Best Available Techniques (BAT) Reference Document for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvic_aaf.pdf

²⁵⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁵⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²⁵⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁵⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

3.15. Manufacture of nitric acid

Description of the activity

Manufacture of nitric acid.

The activity is classified under NACE code C.20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁵⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
-

²⁵⁸ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁵⁹ or rely on blue or green infrastructure²⁶⁰ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	GHG emissions ²⁶¹ from the manufacture of nitric acid are lower than [xxx ²⁶²] tCO ₂ e per tonne of nitric acid.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ²⁶³ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: <ul style="list-style-type: none"> (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers;

²⁵⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁶⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

²⁶¹ Calculated in accordance with Regulation (EU) 2019/331.

²⁶² [The median value of the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026.]

²⁶³ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>(b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector;</p> <p>(c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.]</p> <p>No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁶⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁶⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁶⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁶⁷ are implemented.</p>

3.16. Manufacture of plastics in primary form

Description of the activity

Manufacture resins, plastics materials and non-vulcanisable thermoplastic elastomers, the mixing and blending of resins on a custom basis, as well as the manufacture of non-customised synthetic resins.

The activity is classified under NACE code C20.16 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

²⁶⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive).

²⁶⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²⁶⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁶⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁶⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁶⁹ or rely on blue or green infrastructure²⁷⁰ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

²⁶⁸ Such as Copernicus services managed by the European Commission.

²⁶⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁷⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The plastic in primary form is one of the following:</p> <ul style="list-style-type: none">(a) fully manufactured by mechanical recycling of plastic waste;(b) fully manufactured by chemical recycling of plastic waste where the life-cycle greenhouse gas emissions of the manufactured plastic, excluding any calculated benefit from the production of fuels, are lower than the life-cycle greenhouse gas emissions of the equivalent primary plastic manufactured from fossil fuel feedstock. <p>Life-cycle greenhouse gas emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.</p> <p>Quantified life-cycle GHG emissions are verified by an independent third party.</p> <ul style="list-style-type: none">(c) derived wholly or partially from renewable feedstock²⁷¹ where the life-cycle greenhouse gas emissions of the manufactured plastic in primary form, manufactured wholly or partially from renewable feedstock, is lower than the life-cycle greenhouse gas emissions of the equivalent plastics in primary form manufactured from fossil fuel feedstock. <p>Life-cycle greenhouse gas emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.</p> <p>Quantified life-cycle GHG emissions are verified by an independent third party.</p>
(3) Sustainable use and protection of water and marine resources	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders²⁷².</p>

²⁷¹

Renewable feedstock refers to biomass, industrial bio-waste or municipal bio-waste.

²⁷²

As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the Best Available Techniques Reference Document (BREF) for the Production of Polymers ²⁷³ . No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁷⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁷⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁷⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁷⁷ are implemented.</p>

4. ENERGY

4.1. Electricity generation using solar photovoltaic technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using solar photovoltaic (PV) technology.

²⁷³ Best Available Techniques (BAT) Reference Document for the Production of Polymers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/pol_bref_0807.pdf.

²⁷⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁷⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²⁷⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁷⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex., the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.11 and F.42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁷⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions²⁷⁹ or rely on blue or green infrastructure²⁸⁰ to the extent possible;
-

²⁷⁸ Such as Copernicus services managed by the European Commission.

²⁷⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁸¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁸².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas</p>

²⁸⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

²⁸¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁸² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

(including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁸³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁸⁴ are implemented.

4.2. Electricity generation using concentrated solar power (CSP) technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using concentrated solar power (CSP) technology.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁸⁵, the best available science for

²⁸³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁸⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

²⁸⁵ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁸⁶ or rely on blue or green infrastructure²⁸⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ²⁸⁸ .
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and	N/A

²⁸⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁸⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

²⁸⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁸⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁹⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁹¹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁹² are implemented.</p>

4.3. Electricity generation from wind power

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from wind power. Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply..

The activity is classified under NACE code D35.1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

²⁸⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

²⁹⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²⁹¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁹² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models²⁹³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions²⁹⁴ or rely on blue or green infrastructure²⁹⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

²⁹³ Such as Copernicus services managed by the European Commission.

²⁹⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

²⁹⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	In case of construction of offshore wind, the activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening²⁹⁶ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards²⁹⁷.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment²⁹⁸, where applicable, has been conducted and based on its conclusions the necessary mitigation measures²⁹⁹ are implemented.³⁰⁰</p>

²⁹⁶ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that 2011/92/EU).

²⁹⁷ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

²⁹⁸ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

²⁹⁹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

³⁰⁰ Practical guidance for the implementation of this criterion is contained in the European Commission document: “Wind energy developments and Natura 2000”,

In case of offshore wind, the activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity) and 6 (seabed integrity), laid down in Annex I to that Directive, and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors.

4.4. Electricity generation from ocean energy technologies

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from ocean energy.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁰¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed

https://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf [being updated – add new reference if available on time for DA adoption].

³⁰¹

Such as Copernicus services managed by the European Commission.

publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁰² or rely on blue or green infrastructure³⁰³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.
(6) Protection and restoration of	An Environmental Impact Assessment (EIA) or screening ³⁰⁴ has been completed, for activities within the Union, in accordance with Directive

³⁰² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁰³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

biodiversity and ecosystems	<p>2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁰⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁰⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁰⁷ are implemented.</p> <p>The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), laid down in Annex I to that Directive and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors.</p>
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4.5. Electricity generation from hydropower

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from hydropower, including mixed pumped hydropower storage.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

³⁰⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive 2011/92/EU).

³⁰⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³⁰⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁰⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁰⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁰⁹ or rely on blue or green infrastructure³¹⁰ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

³⁰⁸ Such as Copernicus services managed by the European Commission.

³⁰⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³¹⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

<p>(1) Climate change mitigation</p>	<p>The direct GHG emissions of the activity are lower than 270gCO₂e/kWh.</p>
<p>(3) Sustainable use and protection of water and marine resources</p>	<p>1. Operation of existing hydropower plants, including refurbishment activities to enhance renewable energy or energy storage potential.</p> <p>All technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water.</p> <p>The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body.</p> <p>The operation of the hydropower plant fully complies with that authorisation or permit issued by the competent authority, and sets out all relevant mitigation measures necessary to:</p> <ul style="list-style-type: none"> (a) ensure conditions as close as possible to undisturbed continuity in the specific water body the plant relates to, including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant; (b) reduce the impact of hydropeaking; (c) protect or enhance habitats for aquatic species; (d) reduce adverse impacts of eutrophication. <p>2. Construction of new hydropower plants</p> <p>The plants are conceived, by design and location and by mitigation measures, so that they comply with one of the following:</p> <ul style="list-style-type: none"> (a) the plants do not entail any deterioration nor compromise the achievement of good status or potential of the specific water body they relate to, as demonstrated by a cumulative impact assessment referred to in this Section; (b) the plants do neither significantly deteriorate nor compromise the achievement of good status/potential of the specific water body they relate to and are justified by

overriding reasons in the public interest.

The plants are conceived, by design and location and by mitigation measures, so that they do not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district.

A cumulative impact assessment has been performed that identifies and addresses any significant regional or basin-level environmental impacts. The assessment:

- (a) addresses all potential impacts on water bodies, as well as on protected habitats and species directly dependent on water, considering in particular:
 - (i) migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions;
 - (ii) all impacts of existing and of already authorised and planned infrastructure developments in the basin, for example as part of a hydropower cascade or of other activities (for example agriculture, transport etc.);
- (b) is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydrological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one.

The cumulative impact assessment demonstrates that the project does not permanently exclude the achievement of the objectives of good status/potential in other water bodies or connected ecosystems within the same river basin district.

Where the cumulative impact assessment demonstrates that the envisaged project neither deteriorates nor compromises the achievement of good status/potential of the specific water body, as a result of site-specific conditions or the use of state-of-the-art technology, the operation of the new hydropower plant fully complies with its authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The plant respects appropriate environmental standards in terms of flow management and flood regime (magnitude, frequency, duration, timing and rate of change) and of mitigation measures, including controlled releases, state-of-the-art and fully functional fish passages, state-of-the-art turbines preventing fish kill, controlled temperature, appropriate ecological flow, sediment flow, timing of operation of turbines.

Where the cumulative impact assessment demonstrates that the

envisaged project could deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, a further in-depth cost-benefit assessment is performed. That in-depth cost-benefit assessment demonstrates that such deterioration will not be significant and will comply with all of the following criteria:

- (a) the beneficial objectives served by the planned hydropower plant in terms of renewable energy generation and energy storage cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (alternative location, rehabilitation/refurbishment of existing hydropower plants or infrastructures, use of technologies not disrupting river continuity, where relevant, consideration of other potential sources of electricity, which may offer in the particular case a better environmental alternative; the beneficial objectives served by the planned hydropower plant are justified by overriding reasons in the public interest;
- (b) the benefits expected from the planned hydropower plant outweigh the costs from deteriorating the status of water that are accruing to the environment and to society. The in-depth cost-benefits analysis considers the following aspects:
 - (i) the marginal quantity of energy generated and its contribution to increasing the share of renewable energy in the energy mix, in accordance with the national renewable energy strategy when relevant;
 - (ii) impacts on water status or potential upstream and downstream;
 - (iii) impacts on biodiversity, in particular on Protected Areas (such as Natura 2000 sites in the Union, areas relied upon for drinking water, areas with bathing water);
 - (iv) the benefits of ecosystem services (quantitatively where possible);
- (c) all technically feasible and ecologically relevant mitigation measures are included in the permit or authorisation and are implemented to reduce the adverse impacts on the status of the water body the planned hydropower plant relates to. Those measures:
 - (i) ensure conditions as close as possible to undisturbed

	<p>continuity (including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant);</p> <p>(ii) reduce the impact of hydropeaking;</p> <p>(iii) protect or enhance habitats for aquatic species;</p> <p>(iv) reduce adverse impacts of eutrophication;</p> <p>(d) in addition to the mitigation measures referred to in point (d) and where relevant, compensatory measures are implemented to ensure that the project does not increase the fragmentation of water bodies in the same river basin district. This is achieved by restoring continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned hydropower plant may cause. Compensation starts prior to the execution of the project.</p>
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³¹¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³¹².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

³¹¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³¹² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³¹³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³¹⁴ are implemented.³¹⁵

4.6. Electricity generation from geothermal energy

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from geothermal energy.

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³¹⁶, the best available science for

³¹³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³¹⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

³¹⁵ Practical guidance is contained in Commission notice C/2018/2619 'Guidance document on the requirements for hydropower in relation to EU nature legislation' (OJ C 213, 18.6.2018, p. 1).

³¹⁶ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³¹⁷ or rely on blue or green infrastructure³¹⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³¹⁹ .
(4) Transition to a circular economy	N/A

³¹⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³¹⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

³¹⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with the air emission requirements set out in Directive 2004/107/EC and Directive 2008/50/EC.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³²⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³²¹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³²², where applicable, has been conducted and based on its conclusions the necessary mitigation measures³²³ are implemented.</p>

4.7. Electricity generation from gaseous and liquid fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

³²⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³²¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³²² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³²³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³²⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³²⁵ or rely on blue or green infrastructure³²⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

³²⁴ Such as Copernicus services managed by the European Commission.

³²⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³²⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³²⁷ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emissions levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants³²⁸. No significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193³²⁹.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³³⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³³¹.</p> <p>Where an EIA has been carried out, the required mitigation and</p>

³²⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

³²⁸ Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed. Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p.1).

³²⁹ Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

³³⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³³¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

compensation measures for protecting the environment are implemented.

For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³³², where applicable, has been conducted and based on its conclusions the necessary mitigation measures³³³ are implemented.

4.8. Electricity generation from bioenergy

Description of the activity

Construction and operation of electricity generation installations that produce electricity from biomass, biogas and biofuels.

The activity is classified under NACE code D35.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate
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³³² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³³³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³³⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³³⁵ or rely on blue or green infrastructure³³⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³³⁷ .

³³⁴ Such as Copernicus services managed by the European Commission.

³³⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³³⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

³³⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>For installations falling within the scope of Directive 2010/75/EU of the European Parliament and of the Council³³⁸, emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants³³⁹. No significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193 of the European Parliament and of the Council³⁴⁰.</p> <p>For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC of the European Parliament and of the Council³⁴¹, results of the information exchange³⁴² which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account.</p> <p>For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products.</p> <p>For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels</p>

³³⁸ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

³³⁹ Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

³⁴⁰ Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

³⁴¹ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1).

³⁴² The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: <https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details>.

	<p>associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment³⁴³. No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁴⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁴⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment, where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented.</p>

4.9. Transmission and distribution of electricity

Description of the activity

Construction and operation of transmission systems that transport electricity on the extra high-voltage and high-voltage interconnected system and construction and operation of distribution systems that transport electricity on high-voltage, medium-voltage and low-voltage distribution systems where:

1. The transmission and distribution infrastructure or equipment in the system is the interconnected European system, i.e. the interconnected electricity system covering the interconnected control areas of Member States, Norway, Switzerland and the United Kingdom, and its subordinated systems;
2. The transmission and distribution infrastructure or equipment is in a system which complies with one or both of the following criteria:

³⁴³ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

³⁴⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

³⁴⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

- (a) more than 67 % of newly connected generation capacity in the system where the infrastructure or equipment is to be installed is below the generation threshold value of 100 gCO₂e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period;
- (b) an average system grid emissions factor, that is calculated as the total annual emissions from power generation, divided by the total annual net electricity production in that system, is below the threshold value of 100 gCO₂e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year average period;

3. The transmission and distribution infrastructure or equipment is not dedicated to creating a direct connection, or expanding an existing direct connection to a power production plant that is more CO₂ intensive than 100 gCO₂e/kWh, measured on a life cycle basis.

4. The activity is one of the following:

- (a) construction and operation of direct connection, or expansion of existing direct connection, of low carbon electricity generation below the threshold of 100 gCO₂e/kWh measured on a life cycle basis to a substation or network;
- (b) construction and operation of electronic vehicle (EV) charging stations and supporting electric infrastructure for the electrification of transport, subject to eligibility under the transport Section of Annex I;
- (c) installation of transmission and distribution transformers that comply with the Tier 2 (1 July 2021) requirements set out in Annex I to Regulation (EU) No 548/2014 and, for medium power transformers with highest voltage for equipment not exceeding 36 kV, with AAA0 level requirements on no-load losses set out in standard EN 50588-1.
- (d) construction/installation and operation of equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation;
- (e) installation of equipment to increase the controllability and observability of the electricity system and to enable the development and integration of renewable energy sources, including:
 - (i) sensors and measurement tools (including meteorological sensors for forecasting renewable production);
 - (ii) communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed).
- (f) installation of equipment to carry information to users for remotely acting on consumption, including customer data hubs;
- (g) construction/installation of equipment to allow for exchange of specifically renewable electricity between users;
- (h) interconnectors between transmission systems are eligible, provided that one of the systems is eligible.

5. For the purposes of this Section, a ‘system’ means the transmission or distribution network control area of the network or system operator(s) where the activity takes place.

6. For the purposes of this Section the following specifications apply:

- (a) the rolling five-year (average) period used in determining compliance with the thresholds is based on historic data, and includes the year for which the most recent data are available;
- (b) transmission systems may include generation capacity connected to subordinated distribution systems;
- (c) distribution systems subordinated to a transmission system that is deemed to be on a trajectory to full decarbonisation may also be deemed to be on a trajectory to full decarbonisation;
- (d) to determine eligibility, it is possible to consider a system covering multiple control areas which are interconnected and with significant energy exchanges between them, in which case the weighted average emissions factor across all included control areas is used to determine eligibility, and individual subordinated transmission or distribution systems within that system is not required to demonstrate compliance separately;
- (e) it is possible for a system to become ineligible after having previously been eligible. In systems that become ineligible, no new transmission and distribution activities are eligible from that moment onward, until the system complies again with the threshold (except for those activities which are always eligible, see above). Activities in subordinated systems may still be eligible, where those subordinated systems meet the criteria of this Section.
- (f) a direct connection or expansion of an existing direct connection to production plants includes infrastructure that is indispensable to carry the associated electricity from the power generating facility to a substation or network.

The activity is classified under NACE codes D35.12 and D35.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-
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the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁴⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁴⁷ or rely on blue or green infrastructure³⁴⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The transmission and distribution infrastructure or equipment is not dedicated to creating a direct connection, or expanding an existing direct connection to a power production plant where the direct greenhouse gas emissions exceed 270 gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	A waste management plan is in place and ensures maximal reuse or

³⁴⁶ Such as Copernicus services managed by the European Commission.

³⁴⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁴⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	<p>Overground high voltage lines:</p> <p>(a) for construction site activities, activities follow the principles of the International Finance Corporation (IFC) General Environmental, Health, and Safety Guidelines³⁴⁹.</p> <p>(b) activities respect applicable norms and regulations to limit impact of electromagnetic radiation on human health, including for activities carried out in the Union, the Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)³⁵⁰ and for activities carried out in third countries the 1998 Guidelines of International Commission on Non-Ionizing Radiation Protection (ICNIRP)³⁵¹.</p> <p>Activities do not use PCBs polychlorinated biphenyls.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁵² has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁵³.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

³⁴⁹ Environmental, Health, and Safety (EHS) Guidelines of 30 April 2007, <https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p>

³⁵⁰ Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (1999/519/EC) (OJ L 199, 30.7.1999, p.59).

³⁵¹ ICNIRP 1998 Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 ghz), <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>.

³⁵² The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³⁵³ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁵⁴, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁵⁵ are implemented³⁵⁶.

4.10. Storage of electricity

Description of the activity

Construction and operation of facilities that store electricity and return it at a later time in the form of electricity. The activity includes pure closed-loop pumped hydropower storage.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the
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³⁵⁴ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁵⁵ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

³⁵⁶ Practical guidance for the implementation of this criterion is contained in the European Commission notice 2018/C 213/02 “Energy transmission infrastructure and EU nature legislation” (OJ C 213, 18.6.2018, p.1).

expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁵⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁵⁸ or rely on blue or green infrastructure³⁵⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	For closed-loop pumped hydropower storage, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³⁶⁰ .

³⁵⁷ Such as Copernicus services managed by the European Commission.

³⁵⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁵⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

³⁶⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁶¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁶².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁶³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁶⁴ are implemented.</p>

4.11. Storage of thermal energy

Description of the activity

Construction and operation of facilities that store thermal energy and return it at a later time, in the form of thermal energy or other energy vectors. The activity includes Thermal Energy Storage (UTES) or Aquifer Thermal Energy Storage (ATES).

³⁶¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referring to in Article 4(2) of that Directive).

³⁶² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³⁶³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁶⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁶⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
 - (b) favour nature-based solutions³⁶⁶ or rely on blue or green infrastructure³⁶⁷ to the extent possible;
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³⁶⁵ Such as Copernicus services managed by the European Commission.

³⁶⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	For Aquifer Thermal Energy Storage, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³⁶⁸ .
(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening ³⁶⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

³⁶⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

³⁶⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

³⁶⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	<p>completed in accordance with equivalent national provisions or international standards³⁷⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁷¹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁷² are implemented.</p>
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4.12. Storage of hydrogen

Description of the activity

Construction and operation of facilities that store hydrogen and return it at a later time where the hydrogen stored in the facility meets the criteria for manufacture of hydrogen specified in section 3.9. of Annex I to this Regulation.

The activity has no dedicated NACE code in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less

³⁷⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³⁷¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁷² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁷³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁷⁴ or rely on blue or green infrastructure³⁷⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	A waste management plan is in place and ensures maximal reuse,

³⁷³ Such as Copernicus services managed by the European Commission.

³⁷⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁷⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	In the case of storage above five tonnes, the activity complies with Directive 2012/18/EU.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁷⁶ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁷⁷.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁷⁸, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁷⁹ are implemented.</p>

4.13. Manufacture of biogas and biofuels for use in transport

Description of the activity

Manufacture of biogas or biofuels for use in transport.

The activity is classified under NACE code D35.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

³⁷⁶ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³⁷⁷ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³⁷⁸ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁷⁹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁸⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁸¹ or rely on blue or green infrastructure³⁸² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

³⁸⁰ Such as Copernicus services managed by the European Commission.

³⁸¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁸² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ³⁸³ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>For biogas production, a gas-tight cover on the digestate storage is applied.</p> <p>For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment³⁸⁴. No significant cross-media effects occur.</p> <p>In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation EU 2019/1009 and respective national rules on fertilising products.</p>

³⁸³ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

³⁸⁴ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁸⁵ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁸⁶.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment³⁸⁷, where applicable, has been conducted and based on its conclusions the necessary mitigation measures³⁸⁸ are implemented.</p>
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4.14. Transmission and distribution networks for renewable and low-carbon gases

Description of the activity

Repurposing of gas networks for the distribution of gaseous fuels through a system of mains.
 Repurposing of gas networks for long-distance transport of renewable and low-carbon gases by pipelines.
 Construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen and other low-carbon gases.

The activity is classified under NACE codes D35.21, F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

³⁸⁵ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

³⁸⁶ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

³⁸⁷ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁸⁸ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁸⁹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁹⁰ or rely on blue or green infrastructure³⁹¹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

³⁸⁹ Such as Copernicus services managed by the European Commission.

³⁹⁰ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁹¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	<p>The repurposing does not increase gas transmission and distribution capacity.</p> <p>The repurposing does not extend the lifespan of the networks beyond their pre-retrofit projected lifespan, unless the network is dedicated to hydrogen or other low-carbon gases.</p>
(3) Sustainable use and protection of water and marine resources	<p>Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders³⁹².</p>
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC comply, where relevant, with the top class requirements of the energy label, and with implementing regulations under that Directive and represent the best available technology.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening³⁹³ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards³⁹⁴.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

³⁹² As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

³⁹³ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to Article 4(2) of that Directive).

³⁹⁴ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ³⁹⁵ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ³⁹⁶ are implemented.
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4.15. District heating/cooling distribution

Description of the activity

Construction, refurbishment and operation of pipelines and associated infrastructure for distribution of heating and cooling, ending at the sub-station or heat exchanger.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models³⁹⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

³⁹⁵ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

³⁹⁶ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

³⁹⁷ Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions³⁹⁸ or rely on blue or green infrastructure³⁹⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁰⁰ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC comply, where relevant, with the top class requirements of the energy label, and otherwise comply with

³⁹⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

³⁹⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴⁰⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	implementing regulations under that Directive and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁰¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁰².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁰³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁰⁴ are implemented.</p>

4.16. Installation of electric heat pumps

Description of the activity

Installation and operation of electric heat pumps.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁴⁰¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁰² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁰³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁰⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁰⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁰⁶ or rely on blue or green infrastructure⁴⁰⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

⁴⁰⁵ Such as Copernicus services managed by the European Commission.

⁴⁰⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁰⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁰⁸ .
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	For air to air heat pumps with rated capacity of 12kW or below, indoor and outdoor sound power levels are below the threshold set out in Regulation (EU) No 206/2012.
(6) Protection and restoration of biodiversity and ecosystems	N/A

4.17. Cogeneration of heat/cool and power from solar energy

Description of the activity

Construction and operation of a facility co-generating electricity and heat/cool from solar energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁴⁰⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁰⁹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴¹⁰ or rely on blue or green infrastructure⁴¹¹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁴⁰⁹ Such as Copernicus services managed by the European Commission.

⁴¹⁰ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴¹¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴¹² has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴¹³.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴¹⁴, where applicable, has</p>

⁴¹² The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴¹³ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴¹⁴ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

been conducted and based on its conclusions the necessary mitigation measures⁴¹⁵ are implemented.

4.18. Cogeneration of heat/cool and power from geothermal energy

Description of the activity

Construction and operation of facilities co-generating heat/cool and power from geothermal energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴¹⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁴¹⁵ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

⁴¹⁶ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴¹⁷ or rely on blue or green infrastructure⁴¹⁸ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴¹⁹ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements laid down in Directives 2004/107/EC and 2008/50/EC.

⁴¹⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴¹⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴¹⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴²⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴²¹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴²², where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴²³ are implemented.</p>
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4.19. Cogeneration of heat/cool and power from gaseous and liquid fuels

Description of the activity

Construction and operation of combined heat/cool and power generation facilities using gaseous and liquid fuels (not exclusive to natural gas, oil and other refined products).

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those

⁴²⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴²¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴²² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴²³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴²⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴²⁵ or rely on blue or green infrastructure⁴²⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
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⁴²⁴ Such as Copernicus services managed by the European Commission.

⁴²⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴²⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴²⁷ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴²⁸ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴²⁹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

⁴²⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁴²⁸ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴²⁹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ⁴³⁰ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ⁴³¹ are implemented.
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4.20. Cogeneration of heat/cool and power from bioenergy

Description of the activity

Construction and operation of installations used for cogeneration of heat/cool and power from biomass.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴³², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

⁴³⁰ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴³¹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

⁴³² Such as Copernicus services managed by the European Commission.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴³³ or rely on blue or green infrastructure⁴³⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴³⁵ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with

⁴³³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴³⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴³⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	<p>the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants⁴³⁶, ensuring at the same time that no significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.</p> <p>For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC, results of the information exchange⁴³⁷, which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account.</p> <p>In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products.</p> <p>For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment⁴³⁸. No significant cross-media effects occur.</p>
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening ⁴³⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

⁴³⁶ Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

⁴³⁷ The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: <https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details>.

⁴³⁸ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

⁴³⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	<p>completed in accordance with equivalent national provisions or international standards⁴⁴⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁴¹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁴² are implemented.</p>
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4.21. Production of heat/cool from solar thermal heating

Description of the activity

Construction and operation of facilities producing heat/cool from solar thermal heating technology.

Where the activity is an integral element of the activity ‘Installation, maintenance and repair of renewable energy technologies’ as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected

⁴⁴⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁴¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁴² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁴³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁴⁴ or rely on blue or green infrastructure⁴⁴⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A

⁴⁴³ Such as Copernicus services managed by the European Commission.

⁴⁴⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁴⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁴⁶ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁴⁷.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁴⁸, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁴⁹ are implemented.</p>

4.22. Production of heat/cool from geothermal energy

Description of the activity

Construction and operation of facilities that produce heat/cool from geothermal energy.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁴⁴⁶ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁴⁷ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁴⁸ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁴⁹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁵⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁵¹ or rely on blue or green infrastructure⁴⁵² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁴⁵⁰ Such as Copernicus services managed by the European Commission.

⁴⁵¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁵² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁵³ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements set out in Directives 2004/107/EC and 2008/50/EC.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁵⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁵⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO</p>

⁴⁵³ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁴⁵⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁵⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment ⁴⁵⁶ , where applicable, has been conducted and based on its conclusions the necessary mitigation measures ⁴⁵⁷ are implemented.
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4.23. Production of heat/cool from gaseous and liquid fuels

Description of the activity

Construction and operation of heat generation facilities that produce heating/cool using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁵⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent

⁴⁵⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁵⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

⁴⁵⁸ Such as Copernicus services managed by the European Commission.

Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁵⁹ or rely on blue or green infrastructure⁴⁶⁰ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The direct GHG emissions of the activity are lower than 270gCO ₂ e/kWh.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁶¹ .
(4) Transition to a circular economy	N/A
(5) Pollution	Emissions are within or lower than the emission levels associated with

⁴⁵⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁶⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴⁶¹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

prevention and control	<p>the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the Emission Limit Values set out in Annex II, part 2, to Directive (EU) 2015/2193.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁶² has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁶³.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁶⁴, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁶⁵ are implemented.</p>

4.24. Production of heat/cool from bioenergy

Description of the activity

Construction and operation of facilities that produce heat/cool from biomass.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁴⁶² The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁶³ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁶⁴ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁶⁵ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁶⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁶⁷ or rely on blue or green infrastructure⁴⁶⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁴⁶⁶ Such as Copernicus services managed by the European Commission.

⁴⁶⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁶⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity meets the requirements relating to sustainability, greenhouse gas emission savings and efficiency laid down in Article 29 of Directive 2018/2001.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁶⁹ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants⁴⁷⁰, ensuring at the same time that no significant cross-media effects occur.</p> <p>For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex 2, part 2, to Directive (EU) 2015/2193.</p> <p>For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC⁴⁷¹, results of the information exchange⁴⁷², which are e published by the Commission in</p>

⁴⁶⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁴⁷⁰ Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

⁴⁷¹ Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

⁴⁷² The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: <https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details>.

	<p>accordance with Article 6, paragraphs 9 and 10 of Directive (EU) 2015/2193 are taken into account.</p> <p>For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products.</p> <p>For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment⁴⁷³. No significant cross-media effects occur.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>An Environmental Impact Assessment (EIA) or screening⁴⁷⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁷⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁷⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁷⁷ are implemented.</p>

⁴⁷³ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

⁴⁷⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁷⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁷⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁷⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.25. Production of heat/cool using waste heat

Description of the activity

Construction and operation of facilities that produce heat/cool using waste heat.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁷⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁷⁹ or rely on blue or green infrastructure⁴⁸⁰ to the extent possible;

⁴⁷⁸ Such as Copernicus services managed by the European Commission.

⁴⁷⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Pumps and the kind of equipment used, which is covered by Ecodesign and Energy labelling comply, where relevant, with the top class requirements of the energy label laid down in Regulation (EU) 2017/1369, and with implementing regulations under Directive 2009/125/EC and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening ⁴⁸¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards ⁴⁸² . Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are

⁴⁸⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴⁸¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁸² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

implemented.

For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁸³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁸⁴ are implemented.

5. WATER SUPPLY, SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES

5.1. Construction, extension and operation of water collection, treatment and supply systems

Description of the activity

Construction, extension and operation of water collection, treatment and supply systems.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate
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⁴⁸³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁸⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁸⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁸⁶ or rely on blue or green infrastructure⁴⁸⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁸⁸ .
(4) Transition to a circular economy	N/A

⁴⁸⁵ Such as Copernicus services managed by the European Commission.

⁴⁸⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁸⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁴⁸⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁸⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁹⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁹¹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁴⁹² are implemented.</p>

5.2. Renewal of water collection, treatment and supply systems

Description of the activity

Renewal of water collection, treatment and supply systems including renewals to water collection, treatment and distribution infrastructures for domestic and industrial needs.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁴⁸⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁹⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁴⁹¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁴⁹² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁴⁹³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁴⁹⁴ or rely on blue or green infrastructure⁴⁹⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

⁴⁹³ Such as Copernicus services managed by the European Commission.

⁴⁹⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁴⁹⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁴⁹⁶ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁴⁹⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁴⁹⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁴⁹⁹, where applicable, has</p>

⁴⁹⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁴⁹⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁴⁹⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

⁴⁹⁹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

been conducted and based on its conclusions the necessary mitigation measures⁵⁰⁰ are implemented.

5.3. Construction, extension and operation of waste water collection and treatment

Description of the activity

Construction, extension and operation of centralised waste water systems including collection (sewer network) and treatment.

The activity is classified under NACE codes E37.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁰¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
-

⁵⁰⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

⁵⁰¹ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁰² or rely on blue or green infrastructure⁵⁰³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed ⁵⁰⁴ . The results are disclosed to investors and clients on demand.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵⁰⁵ . Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented ⁵⁰⁶ .
(4) Transition to a circular economy	N/A

⁵⁰² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁰³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁵⁰⁴ For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf.

⁵⁰⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁵⁰⁶ As specified in Annex II of Regulation (EU) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

<p>(5) Pollution prevention and control</p>	<p>Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC.</p> <p>Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush.</p> <p>Sewage sludge is managed or used, including anaerobic digestion and land application, in accordance with Council Directive 86/278/EEC and national law.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>An Environmental Impact Assessment (EIA) or screening⁵⁰⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁵⁰⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁵⁰⁹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁵¹⁰ are implemented.</p>

5.4. Renewal of waste water collection and treatment

Description of the activity

Renewal of centralised waste water systems including collection (sewer network) and treatment.

⁵⁰⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁵⁰⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁵⁰⁹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁵¹⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE codes E37.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵¹¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵¹² or rely on blue or green infrastructure⁵¹³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

⁵¹¹ Such as Copernicus services managed by the European Commission.

⁵¹² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵¹³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed ⁵¹⁴ . The results are disclosed to investors and clients on demand.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵¹⁵ . Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented ⁵¹⁶ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC. Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush. Sewage sludge is managed or used, including anaerobic digestion and

⁵¹⁴ For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf.

⁵¹⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁵¹⁶ As specified in Annex II to Regulation (EU) 2020/741 of the European Parliament and of the Council of 25May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

	land application, in accordance with Council Directive 86/278/EEC and national law.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁵¹⁷ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁵¹⁸.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁵¹⁹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁵²⁰ are implemented.</p>

5.5. Collection and transport of non-hazardous waste in source segregated fractions

Description of the activity

Separate collection and transport of non-hazardous waste in single or comingled fractions aimed at preparing for reuse or recycling.

The activity is classified under NACE code E38.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁵¹⁷ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁵¹⁸ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁵¹⁹ In accordance with Directives 2009/147/EC and 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁵²⁰ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵²¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵²² or rely on blue or green infrastructure⁵²³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

⁵²¹ Such as Copernicus services managed by the European Commission.

⁵²² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵²³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Separately collected waste fractions are not mixed in waste storage and transfer facilities.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.6. Anaerobic digestion of sewage sludge

Description of the activity

Construction and operation of facilities for the treatment of sewage sludge by anaerobic digestion with the resulting production and utilisation of biogas or chemicals.

The activity is classified under NACE codes E37.00 and F42.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵²⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵²⁵ or rely on blue or green infrastructure⁵²⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵²⁷ .

⁵²⁴ Such as Copernicus services managed by the European Commission.

⁵²⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵²⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁵²⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Emissions are within or lower than the emission levels associated with the best available technique (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment⁵²⁸. No significant cross-media effects occur.</p> <p>Where the resulting digestate is intended for use as soil improver it complies with the following criteria:</p> <ul style="list-style-type: none"> (a) it meets the requirements for fertilising materials set out in Annex II to Regulation 2019/1009⁵²⁹ or national rules on fertilisers/soil improvers for agricultural use; (b) its nitrogen content (with tolerance level ± 25 %) is communicated to the buyer or the entity in charge of taking off the digestate.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.7. Anaerobic digestion of bio-waste

Description of the activity

Construction or operation of dedicated facilities for the treatment of separately collected bio-waste through anaerobic digestion with the resulting production and utilisation of biogas and digestate or chemicals.

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁵²⁸ Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed. Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council

⁵²⁹ For the requirements on digestate, see Component Material Categories (CMCs) 4 and 5 specified in annex II of Regulation 2019/1009.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵³⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵³¹ or rely on blue or green infrastructure⁵³² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁵³⁰ Such as Copernicus services managed by the European Commission.

⁵³¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵³² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵³³ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available technique (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment⁵³⁴. No significant cross-media effects occur.</p> <p>The Nitrogen content (with tolerance level $\pm 25\%$) of the digestate used as fertiliser or soil improver is communicated to the buyer or the entity in charge of taking off the digestate.</p>
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁵³³ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁵³⁴ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p.38).

5.8. Composting of bio-waste

Description of the activity

Construction or operation of dedicated facilities for the treatment of separately collected bio-waste through composting (aerobic digestion) with the resulting production and utilisation of compost.⁵³⁵

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵³⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁵³⁵ Bio-waste is defined in Article 3, point 4, of Directive 2008/98/EC.

⁵³⁶ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵³⁷ or rely on blue or green infrastructure⁵³⁸ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For composting plants treating over 75 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out for aerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment ⁵³⁹ . No significant cross-media effects occur. The site has a system in place that prevents leachate reaching groundwater.
(6) Protection and restoration of biodiversity and	N/A

⁵³⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵³⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁵³⁹ Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p.38).

5.9. Material recovery from non-hazardous waste

Description of the activity

Construction and operation of facilities for the sorting and processing of separately collected non-hazardous waste streams into secondary raw materials involving a mechanical transformation process.

The activity is classified under NACE codes E38.32 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁴⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical

⁵⁴⁰

Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁴¹ or rely on blue or green infrastructure⁵⁴² to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁵⁴¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁴² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

5.10. Landfill gas capture and utilisation

Description of the activity

Installation and operation of infrastructure for landfill⁵⁴³ gas capture and utilisation in permanently closed landfills using new or supplementary dedicated technical facilities and equipment installed during or post landfill closure.

The activity is classified under NACE code E38.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁴⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁵⁴³ 'Landfill' is defined in Article 2, point g, of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1).

⁵⁴⁴ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁴⁵ or rely on blue or green infrastructure⁵⁴⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for methane leakage at the facility.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The permanent closure and remediation as well as the after-care of old landfills, where the landfill gas capture system is installed, are carried out in accordance with the following rules: <ul style="list-style-type: none"> (a) general requirements set out in Annex I to Directive 99/31/EC; (b) control and monitoring procedures set out in Annex III to that Directive.
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁵⁴⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁴⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

5.11. Transport of CO₂

Description of the activity

Transport of captured CO₂, construction and operation of CO₂ pipelines and retrofit of gas networks where the main purpose is the integration of captured CO₂ and where:

1. the CO₂ transported from the installation where it is captured to the injection point does not lead to CO₂ leakages above 0.5 % of the mass of CO₂ transported;
2. the CO₂ is delivered to a permanent CO₂ storage site that meets the criteria for underground geological storage of CO₂ set out in section 5.11 of this Annex; or to other transport modalities, which lead directly to permanent CO₂ storage site that meet those criteria;
3. appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party;
4. where assets are installed that increase the flexibility and improve the management of an existing network, the installation is eligible.

The activity is classified under NACE codes F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate
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projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁴⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁴⁸ or rely on blue or green infrastructure⁵⁴⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	A monitoring plan is in place for CO ₂ leakages.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵⁵⁰ .
(4) Transition to a	N/A

⁵⁴⁷ Such as Copernicus services managed by the European Commission.

⁵⁴⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁴⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁵⁵⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

circular economy	
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁵⁵¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁵⁵².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁵⁵³, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁵⁵⁴ are implemented.</p>

5.12. Underground permanent geological storage of CO₂

Description of the activity

Permanent storage of captured CO₂ in appropriate underground geological formations.

The activity is classified under NACE code E39.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁵⁵¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁵⁵² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

⁵⁵³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁵⁵⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁵⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁵⁶ or rely on blue or green infrastructure⁵⁵⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

⁵⁵⁵ Such as Copernicus services managed by the European Commission.

⁵⁵⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁵⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	A monitoring plan is in place for CO ₂ leakages.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵⁵⁸ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The activity complies with Directive 2009/31/EC.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁵⁵⁹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁵⁶⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁵⁶¹, where applicable, has</p>

⁵⁵⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁵⁵⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁵⁶⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁵⁶¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

been conducted and based on its conclusions the necessary mitigation measures⁵⁶² are implemented.

6. TRANSPORT

6.1. Passenger interurban rail transport

Description of the activity

Retrofit, upgrade or operation of transport of passengers using railroad rolling stock on mainline networks, spread over an extensive geographic area, passenger transport by interurban railways and operation of sleeping cars or dining cars as an integrated operation of railway companies. The activity excludes passenger transport by urban and suburban transit systems, passenger terminal activities, operation of railroad infrastructure; related activities such as switching and shunting and operation of sleeping cars or dining cars when operated by separate units.

The activity is classified under NACE code H49.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁶³, the best available science for

⁵⁶² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁶⁴ or rely on blue or green infrastructure⁵⁶⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, in particular during maintenance.
(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.
(6) Protection and restoration of	N/A

⁵⁶³ Such as Copernicus services managed by the European Commission.

⁵⁶⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁶⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

6.2. Freight rail transport

Description of the activity

Retrofit, upgrade or operation of freight transport on mainline rail networks as well as short line freight railroads. This activity excludes warehousing and storage, freight terminal activities, operation of railroad infrastructure as well as related activities such as switching and shunting and cargo handling.

The activity is classified under NACE code H49.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁶⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

⁵⁶⁶ Such as Copernicus services managed by the European Commission.

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁶⁷ or rely on blue or green infrastructure⁵⁶⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The trains and wagons are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste in accordance with the waste hierarchy, in particular during maintenance.
(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁵⁶⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁶⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

6.3. Urban, suburban and road passenger transport

Description of the activity

Operation of urban and suburban transport systems for and road passenger transport. This may include different modes of land transport, such as by motor bus, tramway, streetcar, trolley bus, underground and elevated railways. The transport is carried out on scheduled routes normally following a fixed time schedule, entailing the picking up and setting down of passengers at fixed stops. The activity also includes town-to-airport or town-to-station lines and operation of funicular railways and aerial cableways where part of urban or suburban transit systems. The activity also includes scheduled long-distance bus services, charters, excursions and other occasional coach services, airport shuttles, operation of school buses and buses for the transport of employees and other passenger transport by man- or animal-drawn vehicles. This activity excludes ambulance transport. It includes operation of vehicles designated as category M2 and M3, in accordance with Article 4(1) of Regulation (EU) 2018/8582, for the provision of passenger transport.

The activity is classified under NACE codes H49.31, H49.39 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁶⁹, the best available science for

⁵⁶⁹ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁷⁰ or rely on blue or green infrastructure⁵⁷¹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity does not include purchasing vehicles with CO ₂ emissions higher than average for the category.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	<p>Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet.</p> <p>For battery-operated fleet, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein.</p> <p>Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the</p>

⁵⁷⁰ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁷¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	exemptions listed in Annex II to Directive 2000/53/EC ⁵⁷² .
(5) Pollution prevention and control	For road vehicles of categories M and N, tyres comply with external rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740. Where applicable, tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.4. Operation of personal mobility devices

Description of the activity

Operation of personal mobility devices where the propulsion comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity and where the personal mobility devices are allowed to be operated on the same public infrastructure as bikes or pedestrians.

The activity is classified under NACE codes N77.11 and N77.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate

⁵⁷² Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 and or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity

projections;

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁷³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁷⁴ or rely on blue or green infrastructure⁵⁷⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste

⁵⁷³ Such as Copernicus services managed by the European Commission.

⁵⁷⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁷⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	<p>hierarchy, both in the use phase (maintenance) and the end-of-life.</p> <p>For battery-operated personal mobility devices, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein.</p> <p>Mobility devices of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC⁵⁷⁶.</p>
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.5. Transport by motorbikes, passenger cars and commercial vehicles

Description of the activity

Operation of vehicles designated as category M1⁵⁷⁷, N1⁵⁷⁸ or L (2- and 3-wheel vehicles and quadricycles)⁵⁷⁹.

The activity is classified under NACE codes H49.32, H49.39 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those

⁵⁷⁶ Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 and or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

⁵⁷⁷ As referred to in Article 4(1), point (a)(i), of Regulation (EU) 2018/858.

⁵⁷⁸ As referred to in Article 4(1), point (b)(i), of Regulation (EU) 2018/858.

⁵⁷⁹ As referred to in Article 4(1) of Regulation (EU) 2018/858.

listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁸⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁸¹ or rely on blue or green infrastructure⁵⁸² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The activity complies with one of the following:</p> <p>(a) the passenger cars and light commercial vehicles have CO₂ emissions, measured in accordance with the worldwide harmonised light vehicles test procedure ('WLTP') set out in Regulation (EU) 2017/1151, which are:</p>
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⁵⁸⁰ Such as Copernicus services managed by the European Commission.

⁵⁸¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁸² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	<p>(i) lower than 50gCO₂/km until 31 December 2025;</p> <p>(ii) zero From 1 January 2026.</p> <p>(a) the tailpipe CO₂ emissions of L category vehicles are zero.</p>
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	<p>Vehicles of categories M1 and N1 are:</p> <p>(a) reusable or recyclable to a minimum of 85 % by weight;</p> <p>(b) reusable or recoverable to a minimum of 95 % by weight⁵⁸³.</p> <p>Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy.</p> <p>Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC⁵⁸⁴.</p>
(5) Pollution prevention and control	<p>Vehicles comply with requirements of the most recent applicable stage of the Euro 6 light-duty emission type-approval⁵⁸⁵ set out in in accordance with Regulation (EC) No. 715/2007.</p> <p>Vehicles comply with the emission thresholds for clean light-duty vehicles set out in Table 2 of the Annex to Directive 2009/33/EC.</p> <p>For vehicles of categories M1 and N1, tyres comply with rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740.</p>

⁵⁸³ As set out in Annex I of Directive 2005/64/EC.

⁵⁸⁴ Though Directive 2000/53/EC currently only applies to vehicles designated as M1 and N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

⁵⁸⁵ Commission Regulation (EU) 2018/1832 of 5 November 2018 amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) 2017/1151 for the purpose of improving the emission type approval tests and procedures for light passenger and commercial vehicles, including those for in-service conformity and real-driving emissions and introducing devices for monitoring the consumption of fuel and electric energy (OJ L 301, 27.11.2018, p. 1).

	<p>Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009.</p> <p>Vehicles comply with Regulation (EU) No 540/2014.</p>
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.6. Freight transport services by road

Description of the activity

Operation of vehicles designated as category N2⁵⁸⁶, N3⁵⁸⁷ for freight transport services by road.

The activity is classified under NACE codes H49.4.1, H53.10, H53.20 and N77.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available

⁵⁸⁶ As referred to in Article 4(1), point (b)(ii), of Regulation (EU) 2018/858.

⁵⁸⁷ As referred to in Article 4(1), point (b)(iii), of Regulation (EU) 2018/858.

guidance and take into account the open source models⁵⁸⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁸⁹ or rely on blue or green infrastructure⁵⁹⁰ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The vehicles are not dedicated to the transport of fossil fuels.</p> <p>The vehicles are with specific direct CO₂ emissions equal to or lower than the reference CO₂ emissions of all vehicles in the same sub-group.</p>
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	<p>Vehicles of category N1 are:</p> <ul style="list-style-type: none"> (a) reusable or recyclable to a minimum of 85 % by weight, (b) reusable or recoverable to a minimum of 95 % by

⁵⁸⁸ Such as Copernicus services managed by the European Commission.

⁵⁸⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁹⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	<p>weight⁵⁹¹.</p> <p>Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy.</p> <p>Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC⁵⁹².</p>
(5) Pollution prevention and control	<p>Vehicles comply with the requirements of the most recent applicable stage of the Euro heavy duty emission type-approval⁵⁹³ set out in accordance with Regulation (EC) No 595/2009.</p> <p>Tyres comply with rolling noise Class A and with energy performance class A or B asset out in Regulation (EU) 2020/740.</p> <p>Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009.</p> <p>Vehicles comply with Regulation (EU) No 540/2014.</p>
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.7. Inland passenger water transport

Description of the activity

Transport of passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁵⁹¹ As specified in Annex I to Directive 2005/64/EC.

⁵⁹² Though Directive 2000/53/EC currently only applies to vehicles designated as M1 and N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

⁵⁹³ Commission Regulation (EU) No 582/2011 of 25 May 2011 implementing and amending Regulation (EC) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles (Euro VI) and amending Annexes I and III to Directive 2007/46/EC of the European Parliament and of the Council (OJ L 167, 25.6.2011, p. 1).

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁹⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁹⁵ or rely on blue or green infrastructure⁵⁹⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁵⁹⁴ Such as Copernicus services managed by the European Commission.

⁵⁹⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁵⁹⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁵⁹⁷ .
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Engines in vessels comply with the emission limits set out in Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.8. Inland freight water transport

Description of the activity

Transport of freight on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.4.0 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁵⁹⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁵⁹⁸, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁵⁹⁹ or rely on blue or green infrastructure⁶⁰⁰ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

⁵⁹⁸ Such as Copernicus services managed by the European Commission.

⁵⁹⁹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁰⁰ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁰¹ .
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Vessels comply with the emission limits of Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.9. Retrofitting of inland water passenger and freight transport

Description of the activity

Retrofit and upgrade of vessels for transport of freight or passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.4, H50.30 and C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁶⁰¹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁰², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁰³ or rely on blue or green infrastructure⁶⁰⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

⁶⁰² Such as Copernicus services managed by the European Commission.

⁶⁰³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁰⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁰⁵ .
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Vessels comply with the emission limits of Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.10. Sea and coastal freight water transport

Description of the activity

Transport of freight on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

The activity is classified under NACE codes H50.2 and H52.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁶⁰⁵ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁰⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁰⁷ or rely on blue or green infrastructure⁶⁰⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

⁶⁰⁶ Such as Copernicus services managed by the European Commission.

⁶⁰⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁰⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁰⁹ .
(4) Transition to a circular economy	<p>Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy.</p> <p>For activities with ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323.</p> <p>The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships.</p> <p>The ship is operated in accordance with Annex V to the IMO MARPOL Convention.</p>
(5) Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 and with Regulation 14 ⁶¹⁰ of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO ⁶¹¹ .

⁶⁰⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶¹⁰ [http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-\(SOx\)-%E2%80%93-Regulation-14.aspx](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)-%E2%80%93-Regulation-14.aspx).

⁶¹¹ As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

	<p>As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13⁶¹² of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions⁶¹³.</p> <p>Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention.</p> <p>Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.</p> <p>Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM).</p> <p>Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.</p>

6.11. Sea and coastal passenger water transport

Description of the activity

Transport of passengers over seas and coastal waters, whether scheduled or not as well as renting of pleasure boats with crew for sea and coastal water transport. This activity excludes restaurant and bar activities on board ships, when provided by separate units, renting of pleasure boats and yachts without crew, renting of commercial ships or boats without crew and operation of “floating casinos”.

⁶¹² [http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-\(NOx\)—Regulation-13.aspx](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-(NOx)—Regulation-13.aspx).

⁶¹³ In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

The activity is classified under NACE code H50.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶¹⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶¹⁵ or rely on blue or green infrastructure⁶¹⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;

⁶¹⁴ Such as Copernicus services managed by the European Commission.

⁶¹⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶¹⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶¹⁷ .
(4) Transition to a circular economy	<p>Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy.</p> <p>For ships above 500 gross tonnage, the activity complies with the requirement of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323.</p> <p>The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships</p> <p>The ship is operated in accordance with Annex V to the IMO MARPOL Convention.</p>
(5) Pollution prevention and	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 and with

⁶¹⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	<p>Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO⁶¹⁸.</p> <p>As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions⁶¹⁹.</p> <p>Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention.</p> <p>Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.</p> <p>Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM).</p> <p>Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise and with the provisions specified under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.</p>

6.12. Retrofitting of sea and coastal freight and passenger water transport

Description of the activity

Retrofit and upgrade of vessels for the transport of freight or passengers on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

⁶¹⁸ As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

⁶¹⁹ In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

The activity is classified under NACE codes H50.10, H50.2, H52.22, and C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶²⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶²¹ or rely on blue or green infrastructure⁶²² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;

⁶²⁰ Such as Copernicus services managed by the European Commission..

⁶²¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶²² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The vessels are not dedicated to the transport of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶²³ .
(4) Transition to a circular economy	<p>Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy.</p> <p>For ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323.</p> <p>The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships.</p> <p>The ship is operated in accordance with Annex V to the IMO MARPOL Convention.</p>
(5) Pollution	As regards the reduction of sulphur oxides emissions and particulate

⁶²³ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

<p>prevention and control</p>	<p>matters, vessels comply with Directive (EU) 2016/802 and with Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO⁶²⁴.</p> <p>As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to the IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions⁶²⁵.</p> <p>Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention.</p> <p>Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001..</p> <p>Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.</p>
<p>(6) Protection and restoration of biodiversity and ecosystems</p>	<p>The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM).</p> <p>Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise⁶²⁶ and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.</p>

⁶²⁴ As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

⁶²⁵ In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

⁶²⁶ IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life, (MEPC.1/Circ.833).

6.13. Infrastructure for personal mobility

Description of the activity

Construction and operation of infrastructure for personal mobility, including the construction of roads, motorways bridges and tunnels and other infrastructure that are dedicated to pedestrians and bicycles, with or without electric assist.

The infrastructure that is constructed and operated is dedicated to personal mobility: pavements, bike lanes and pedestrian zones, electrical charging and hydrogen refuelling installations for personal mobility devices.

The activity is classified under NACE codes F42.1.1; F42.1.2; F42.1.3; F43.2.1; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶²⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

⁶²⁷ Such as Copernicus services managed by the European Commission.

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶²⁸ or rely on blue or green infrastructure⁶²⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶³⁰ .
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol ⁶³¹ . Operators limit waste generation in processes related construction and demolition, in

⁶²⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶²⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁶³⁰ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶³¹ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

	accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁶³² has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁶³³.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶³⁴, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁶³⁵ are implemented.</p>

6.14. Infrastructure for rail transport

Description of the activity

Construction, operation and maintenance of railways and subways as well as bridges and tunnels, and traffic management systems, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other

⁶³² The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁶³³ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁶³⁴ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶³⁵ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

analytical testing of all types of materials and products, where the infrastructure is not dedicated to the transport of fossil fuels and the activity complies with one of the following criteria:

- (a) the infrastructure (as defined in Annex II.2 to Directive (EU) 2016/797) is either :
 - (i) electrified trackside infrastructure and associated subsystems: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797;
 - (ii) trackside infrastructure and associated subsystems where there is a plan for electrification or the infrastructure will be fit for use by zero tailpipe CO₂ emission trains within 10 years from the beginning of the activity: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797;
- (b) the infrastructure and installations are dedicated to transshipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transshipment of goods;
- (c) infrastructure and installations are dedicated to the transfer of passengers from other modes to rail.

The activity is classified under NACE codes F42.1.1; F42.1.2; F42.1.3; F43.2.1; F71.1, F71.20, and F43.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
 - (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.
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The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶³⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶³⁷ or rely on blue or green infrastructure⁶³⁸ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶³⁹ .
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in in category 17 05 04 in the European List of Waste established by

⁶³⁶ Such as Copernicus services managed by the European Commission.

⁶³⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶³⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁶³⁹ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	<p>Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol⁶⁴⁰. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p>
(5) Pollution prevention and control	<p>Where appropriate, given the sensitivity of the area affected, in particular in terms of the size of population affected, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers or other measures and comply with Directive 2002/49/EC.</p> <p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁶⁴¹ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁶⁴².</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶⁴³, where applicable, has</p>

⁶⁴⁰ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

⁶⁴¹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁶⁴² For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁶⁴³ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

been conducted and based on its conclusions the necessary mitigation measures⁶⁴⁴ are implemented.

6.15. Infrastructure enabling low-carbon road transport

Description of the activity

Construction and operation of motorways, streets, roads, other vehicular and pedestrian ways, surface work on streets, roads, highways, bridges or tunnels and construction of airfield runways, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products, and excludes the installation of street lighting and electrical signals, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

- (a) the infrastructure is dedicated to the operation of vehicles with zero tailpipe CO₂ emissions: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS);
- (b) the infrastructure and installations are dedicated to transshipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transshipment of goods;
- (c) the infrastructure and installations are dedicated to public passenger transport.

The activity is classified under NACE codes F43.2.1; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶⁴⁴ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁴⁵, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁴⁶ or rely on blue or green infrastructure⁶⁴⁷ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

⁶⁴⁵ Such as Copernicus services managed by the European Commission..

⁶⁴⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁴⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁴⁸ .
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol ⁶⁴⁹ . Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Where relevant, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers or other measures and comply with the Directive 2002/49/EC. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening ⁶⁵⁰ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards ⁶⁵¹ .

⁶⁴⁸ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶⁴⁹ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

⁶⁵⁰ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁶⁵¹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	<p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶⁵², where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁶⁵³ are implemented.</p> <p>Where relevant, maintenance of vegetation along road transport infrastructure ensures invasive species do not spread.</p> <p>Mitigation measures have been implemented to avoid wildlife collisions.</p>
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6.16. Infrastructure for water transport

Description of the activity

Construction and operation of waterways, harbour and rivers works, pleasure ports, locks, dams and dykes and other as well as the dredging of waterways, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products and excludes project management activities related to civil engineering works, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

- (a) the infrastructure is dedicated to the operation of vessels with zero direct tailpipe CO₂ emissions: electricity charging, hydrogen-based refuelling;
- (b) the infrastructure is dedicated to the provision of shore-side electrical power to vessels at berth;
- (c) the infrastructure is dedicated to the performance of the port's own operations with zero direct (tailpipe) CO₂ emissions;
- (d) the infrastructure and installations are dedicated to transshipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transshipment of goods.

The activity is classified under NACE code F42.9.1; F71.1 or F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

⁶⁵² In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶⁵³ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁵⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁵⁵ or rely on blue or green infrastructure⁶⁵⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁶⁵⁴ Such as Copernicus services managed by the European Commission.

⁶⁵⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁵⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁵⁷ .
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol ⁶⁵⁸ . Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of	An Environmental Impact Assessment (EIA) or screening ⁶⁵⁹ has been completed, for activities within the Union, in accordance with Directive

⁶⁵⁷ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶⁵⁸ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_

⁶⁵⁹ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

biodiversity and ecosystems	<p>2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁶⁶⁰.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶⁶¹, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁶⁶² are implemented.</p>
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6.17. Low-carbon airport infrastructure

Description of the activity

Construction and operation of infrastructure that is required for zero tailpipe CO₂ operation of aircraft or the airport's own operations, as well as for provision of electrical power and preconditioned air to stationary aircraft, where the infrastructure is not dedicated to the transport of fossil fuels and where it is one of the following:

- (a) the infrastructure is dedicated to the operation of aircraft with zero tailpipe CO₂ emissions: electricity charging and hydrogen refuelling;
- (b) the infrastructure is dedicated to the provision of fixed electrical ground power and preconditioned air to stationary aircrafts;
- (c) the infrastructure is dedicated to the zero direct emissions performance of the airport's own operations: electric charging points, electricity grid connection upgrades, hydrogen refuelling stations.

The activity is classified under NACE code F41.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

⁶⁶⁰ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁶⁶¹ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶⁶² Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁶³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁶⁴ or rely on blue or green infrastructure⁶⁶⁵ to the extent possible,
- (c) are consistent with local, sectoral, regional or national adaptation efforts,
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

⁶⁶³ Such as Copernicus services managed by the European Commission.

⁶⁶⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁶⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁶⁶ .
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol ⁶⁶⁷ . Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening ⁶⁶⁸ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

⁶⁶⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶⁶⁷ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

⁶⁶⁸ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	<p>completed in accordance with equivalent national provisions or international standards⁶⁶⁹.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶⁷⁰, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁶⁷¹ are implemented.</p>
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⁶⁶⁹ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

⁶⁷⁰ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶⁷¹ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

7. CONSTRUCTION AND REAL ESTATE

7.1. Construction of new buildings

Description of the activity

Development of building projects for residential and non-residential buildings by bringing together financial, technical and physical means to realise the building projects for later sale as well as the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis.

The activity is classified under NACE codes F41.1 and F41.2, including also activities under F43, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁷², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁶⁷² Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁷³ or rely on blue or green infrastructure⁶⁷⁴ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts,
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.</p> <p>The Primary Energy Demand (PED)⁶⁷⁵ setting out the energy performance of the building resulting from the construction does not exceed the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation implementing Directive 2010/31/EU. The energy performance is certified using an as built Energy Performance Certificate (EPC).</p>
(3) Sustainable use and protection of water and marine resources	<p>Where installed, the specified water use for the following water appliances are attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to Annex I to this Regulation:</p> <ul style="list-style-type: none"> (a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min; (b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.

⁶⁷³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁷⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁶⁷⁵ The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m² per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).

	To avoid impact from the construction site, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁶⁷⁶ .
(4) Transition to a circular economy	<p>At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol⁶⁷⁷. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p> <p>Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887⁶⁷⁸ or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
(5) Pollution prevention and control	<p>Building components and materials used in the construction do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.</p> <p>Building components and materials used in the construction that may come into contact with occupiers⁶⁷⁹ emit less than 0,06 mg of</p>

⁶⁷⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

⁶⁷⁷ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

⁶⁷⁸ ISO 20887:2020, Sustainability in buildings and civil engineering works - Design for disassembly and adaptability - Principles, requirements and guidance.

⁶⁷⁹ Applying to paints and varnishes, ceiling tiles, floor coverings, including associated adhesives and sealants, internal insulation and interior surface treatments, such as those to treat damp and mold.

	<p>formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516⁶⁸⁰ and ISO 16000-3⁶⁸¹ or other comparable standardised test conditions and determination methods⁶⁸²..</p> <p>Where the new construction is located on a potentially contaminated site (brownfield site), the site has been subject to an investigation for potential contaminants, for example using standard ISO 18400⁶⁸³.</p> <p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.</p>
(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁶⁸⁴ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁶⁸⁵.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁶⁸⁶, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁶⁸⁷ are implemented.</p>

⁶⁸⁰ CEN/TS 16516: 2013, Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air.

⁶⁸¹ ISO 16000-3:2011, Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air — Active sampling method.

⁶⁸² The emissions thresholds for carcinogenic volatile organic compounds relate to a 28-day test period.

⁶⁸³ ISO 18400 series on Soil quality — Sampling

⁶⁸⁴ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁶⁸⁵ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks

⁶⁸⁶ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁶⁸⁷ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

	<p>The new construction is not built on one of the following:</p> <ul style="list-style-type: none"> (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to in the EU LUCAS survey⁶⁸⁸; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List⁶⁸⁹ or the IUCN Red List⁶⁹⁰; (c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest⁶⁹¹].
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7.2. Renovation of existing buildings

Description of the activity

Construction and civil engineering works or preparation thereof.

The activity is classified under NACE codes F41 and F43 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less

⁶⁸⁸ JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, <https://esdac.jrc.ec.europa.eu/projects/lucas>

⁶⁸⁹ IUCN, *The IUCN European Red List of Threatened Species*. <https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species>

⁶⁹⁰ IUCN, *The IUCN Red List of Threatened Species*. <https://www.iucnredlist.org>

⁶⁹¹ Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use.

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁹², the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁹³ or rely on blue or green infrastructure⁶⁹⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	Where installed as part of the renovation works, the specified water use for the following water appliances is attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to Annex I to this Regulation:

⁶⁹² Such as Copernicus services managed by the European Commission.

⁶⁹³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁹⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

	<p>(a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min;</p> <p>(b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres;</p> <p>(c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.</p>
(4) Transition to a circular economy	<p>At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol⁶⁹⁵. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.</p> <p>Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantlable to enable reuse and recycling.</p>
(5) Pollution prevention and control	<p>Building components and materials used in the building renovation do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.</p> <p>Building components and materials used in the building renovation that may come into contact with occupiers⁶⁹⁶ emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS</p>

⁶⁹⁵ EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

⁶⁹⁶ Applying to paints and varnishes, ceiling tiles, floor coverings (including associated adhesives and sealants), internal insulation and interior surface treatments (such as to treat damp and mold).

	<p>16516 and ISO 16000-3 or other comparable standardised test conditions and determination methods .</p> <p>Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.</p>
(6) Protection and restoration of biodiversity and ecosystems	N/A.

7.3. Installation, maintenance and repair of energy efficiency equipment

Description of the activity

Individual renovation measures consisting in installation, maintenance or repair of energy efficiency equipment. The activity consists in one of the following individual measures, provided that they comply with minimum requirements set for individual components and systems in the applicable national measures implementing Directive 2010/31/EU and, where applicable, achieve energy ratings of at least class A in accordance with Regulation (EU) 2017/1369:

- (a) addition of insulation to existing envelope components, such as external walls (including green walls), roofs (including green roofs), lofts, basements and ground floors (including measures to ensure air-tightness, measures to reduce the effects of thermal bridges and scaffolding) and products for the application of the insulation to the building envelope (including mechanical fixings and adhesive);
- (b) replacement of existing windows with new energy efficient windows;
- (c) replacement of existing external doors with new energy efficient doors;
- (d) installation and replacement of heating, ventilation and air-conditioning (HVAC) and water heating systems, including equipment related to district heating services, with highly efficient technologies;
- (e) installation of low water and energy using kitchen and sanitary water fittings which comply with technical specifications set out in Appendix D to Annex I to this Regulation and in case of shower solutions, mixer showers, shower outlets and taps have a max water flow of 6 L/min or less attested by an existing label in the Union market.

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁶⁹⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁶⁹⁸ or rely on blue or green infrastructure⁶⁹⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁶⁹⁷ Such as Copernicus services managed by the European Commission.

⁶⁹⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁶⁹⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	<p>Building components and materials used in carrying out the activity do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to (EC) No 1907/2006</p> <p>In case of addition of thermal insulation to an existing building envelope, a building survey is carried out in accordance with national law by a competent specialist with training in asbestos surveying. Any stripping of lagging that contains or is likely to contain asbestos, breaking or mechanical drilling or screwing or removal of insulation board, tiles and other asbestos containing materials is carried out by appropriately trained personnel, with health monitoring before, during and after the works, in accordance with national law.</p>
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)

Description of the activity

Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings).

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁰⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁰¹ or rely on blue or green infrastructure⁷⁰² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁷⁰⁰ Such as Copernicus services managed by the European Commission.

⁷⁰¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁰² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.5. Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

Description of the activity

Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings, consisting in one of the following measures:

- (a) installation of zoned thermostats, smart thermostat systems and sensing equipment, including motion and day light control;
- (b) installation of building automation and control systems, building energy management systems (BMS), lighting control systems and energy management systems (EMS);
- (c) installation of smart meters for gas, heat, cool and electricity;
- (d) installation of façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation.

The activity is classified under NACE code F42, F43, M71, and C16, C17, C22, C23, C25, C27, C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁰³, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁰⁴ or rely on blue or green infrastructure⁷⁰⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁷⁰³ Such as Copernicus services managed by the European Commission.

⁷⁰⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁰⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Building components and materials used in the activity do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.6. Installation, maintenance and repair of renewable energy technologies

Description of the activity

Installation, maintenance and repair of renewable energy technologies, on-site, consisting in one of the following individual measures, if installed on-site as technical building systems:

- (a) installation, maintenance and repair of solar photovoltaic systems and the ancillary technical equipment;
- (b) installation, maintenance and repair of solar hot water panels and the ancillary technical equipment;
- (c) installation, maintenance, repair and upgrade of heat pumps contributing to the targets for renewable energy in heat and cool in accordance with Directive (EU) 2018/2001 and the ancillary technical equipment;
- (d) installation, maintenance and repair of wind turbines and the ancillary technical equipment;

- (e) installation, maintenance and repair of solar transpired collectors and the ancillary technical equipment;
- (f) installation, maintenance and repair of thermal or electric energy storage units and the ancillary technical equipment;
- (g) installation, maintenance and repair of high efficiency micro CHP (combined heat and power) plant; installation, maintenance and repair of heat exchanger/recovery systems.

The activity is classified under NACE code F42, F43, M71, and C16, C17, C22, C23, C25, C27, C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁰⁶, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁷⁰⁶ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁰⁷ or rely on blue or green infrastructure⁷⁰⁸ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(2) Climate change mitigation	The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁷⁰⁷ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁰⁸ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

7.7. Acquisition and ownership of buildings

Description of the activity

Buying real estate and exercising ownership of that real estate.

The activity is classified under NACE code L68 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁰⁹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷¹⁰ or rely on blue or green infrastructure⁷¹¹ to the extent possible;

⁷⁰⁹ Such as Copernicus services managed by the European Commission.

⁷¹⁰ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	<p>The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.</p> <p>For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class B.</p> <p>For buildings built after 31 December 2020, the Primary Energy Demand (PED)⁷¹² defining the energy performance of the building resulting from the construction does not exceed the threshold set for the nearly zero-energy building (NZEB) requirements in national regulation implementing Directive 2010/31/EU. The energy performance is certified using an as built Energy Performance Certificate (EPC).</p>
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

⁷¹¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁷¹² The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m² per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).

(6) Protection and restoration of biodiversity and ecosystems	<p>An Environmental Impact Assessment (EIA) or screening⁷¹³ has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards⁷¹⁴.</p> <p>Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.</p> <p>For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment⁷¹⁵, where applicable, has been conducted and based on its conclusions the necessary mitigation measures⁷¹⁶ are implemented.</p> <p>The building was not built on one of the following:</p> <ul style="list-style-type: none"> (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to in the EU LUCAS survey⁷¹⁷; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List⁷¹⁸ or the IUCN Red List⁷¹⁹; (c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest].
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⁷¹³ The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

⁷¹⁴ For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

⁷¹⁵ In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

⁷¹⁶ Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

⁷¹⁷ JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, <https://esdac.jrc.ec.europa.eu/projects/lucas>.

⁷¹⁸ IUCN, *The IUCN European Red List of Threatened Species*. <https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species>

⁷¹⁹ IUCN, *The IUCN Red List of Threatened Species*. <https://www.iucnredlist.org>.

8. INFORMATION AND COMMUNICATION

8.1. Data processing, hosting and related activities

Description of the activity

Storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of diversity of data through data centres⁷²⁰, including edge computing.

The activity is classified under NACE code J63.1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷²¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical
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⁷²⁰ Data centres include the following equipment: ICT equipment and services; cooling; data centre power equipment; data centre power distribution equipment; data centre building; monitoring systems.

⁷²¹ Such as Copernicus services managed by the European Commission.

- climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷²² or rely on blue or green infrastructure⁷²³ to the extent possible;
 - (c) are consistent with local, sectoral, regional or national adaptation efforts;
 - (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
 - (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity has demonstrated best efforts to implement the relevant practices listed as "expected practices" in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency ⁷²⁴ , or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management" ⁷²⁵ and has implemented all expected practices that have been assigned the maximum value of 5 according to the most recent version of the European Code of Conduct on Data Centre Energy Efficiency.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁷²⁶ .

⁷²² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷²³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

⁷²⁴ <https://e3p.jrc.ec.europa.eu/publications/2020-best-practice-guidelines-eu-code-conduct-data-centre-energy-efficiency>

⁷²⁵ Issued on 1 July 2019 by the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC), https://www.cenelec.eu/dyn/www/f?p=104:110:508227404055501:::FSP_ORG_ID,FSP_PROJECT,FSP_LANG_ID:1258297,65095,25.

⁷²⁶ As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	<p>The equipment used meets the requirements laid down in Directive 2009/125/EC for servers and data storage products.</p> <p>The equipment used does not contain the restricted substances listed in Annex II to Directive 2011/65/EU, except where the concentration values by weight in homogeneous materials do not exceed the maximum values listed in that Annex.</p> <p>A waste management plan is in place and ensures maximal recycling at end of life of electrical and electronic equipment, including through contractual agreements with recycling partners, reflection in financial projections or official project documentation.</p> <p>At its end of life, the equipment undergoes preparation for re-use, recovery or recycling operations, or proper treatment, including the removal of all fluids and a selective treatment in accordance with Annex VII to Directive 2012/19/EU.</p>
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

8.2. Computer programming, consultancy and related activities

Description of the activity

Providing expertise in the field of information technologies: writing, modifying, testing and supporting software; planning and designing computer systems that integrate computer hardware, software and communication technologies; on-site management and operation of clients' computer systems or data processing facilities; and other professional and technical computer-related activities.

The activity is classified under NACE code J62 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷²⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷²⁸ or rely on blue or green infrastructure⁷²⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm (‘DNSH’)

⁷²⁷ Such as Copernicus services managed by the European Commission.

⁷²⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷²⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

8.3. Programming and broadcasting activities

Description of the activity

Programming and broadcasting activities include creating content or acquiring the right to distribute content and subsequently broadcasting that content, such as radio, television and data programs of entertainment, news, talk, and the like, including data broadcasting, typically integrated with radio or TV broadcasting. The broadcasting can be performed using different technologies, over-the-air, via satellite, via a cable network or via Internet. This also includes the production of programs that are typically narrowcast in nature (limited format, such as news, sports, education, and youth-oriented programming) on a subscription or fee basis, to a third party, for subsequent broadcasting to the public.

The activity is classified under NACE code J60 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions (‘adaptation solutions’) that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷³⁰, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷³¹ or rely on blue or green infrastructure⁷³² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

⁷³⁰ Such as Copernicus services managed by the European Commission.

⁷³¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷³² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe’s Natural Capital (COM/2013/0249 final).

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

9. PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

9.1. Engineering activities and related technical consultancy dedicated to adaptation to climate change

Description of the activity

Engineering activities and related technical consultancy dedicated to adaptation to climate change. The activity is classified under the following NACE codes 71.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/20061.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria specified this section

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity is predominantly aimed at the provision of consultancy that helps one or more economic activities for which the technical screening criteria have been set out in this Annex to meet those respective criteria for substantial contribution to climate change adaptation, while respecting the relevant criteria for doing no significant harm to other environmental objectives.

The economic activity complies with one the following criteria:

- (a) it uses state-of-the-art modelling techniques that:
 - (i) properly reflect climate change risks;
 - (ii) do not rely only on historical trends;
 - (iii) integrate forward-looking scenarios;
- (b) it develops climate models and projections, services and assessment of impacts, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The economic activity removes information, financial, technological and capacity barriers to adaptation.

The potential to reduce material impacts due to climate risks is mapped through a robust climate risk assessment in the target economic activity.

Activities in architectural design take into account climate proofing guidelines, climate-related hazards modelling and enable the adaptation of construction and infrastructure, including building codes and integrated management systems.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷³³ or rely on blue or green infrastructure⁷³⁴ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is

⁷³³ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷³⁴ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

considered where those indicators are not met;

- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.
-

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity is not undertaken for the purposes of fossil fuel extraction or fossil fuel transport.
(3) Sustainable use and protection of water and marine resources	An assessment of the water footprint of the activity has been performed and environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁷³⁵ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

⁷³⁵

As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

9.2. Research, development and innovation related to nature based solutions for adaptation

Description of the activity

Research, applied research, experimental development in natural sciences and engineering of solutions, processes, technologies and other products dedicated to the nature based solutions for adaptation.

This activity is classified under NACE code M72.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria set out in this section.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity researches, innovates or develops nature-based solutions⁷³⁶ and nature inspired technologies, products or process solutions dedicated to enable one or more activities for which the technical screening criteria have been specified in this Annex to meet the respective substantial contribution.

The economic activity removes information, financial, technological and capacity barriers to adaptation through nature based solution.

The economic activity has the potential to reduce material impacts due to climate risks identified through a robust climate risk assessment in another economic activity through the development, research or innovation of nature-based solutions and the nature-inspired technologies, products or process solutions, the risk reduction potential of which can be demonstrated in a relevant environment.

The economic activity uses climate projections and assessment of impacts, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

Activities in architectural design take into account climate proofing guidelines, climate-related hazards and enable the construction and adaptation of infrastructure, including building code and integrated management systems, through nature based solutions and nature-inspired technologies and innovation.

⁷³⁶ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The activity is not undertaken for the purposes of fossil fuel extraction or fossil fuel transport.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders ⁷³⁷ .
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

10. FINANCIAL AND INSURANCE ACTIVITIES

10.1. Non-life insurance: underwriting of climate-related perils

Description of the activity

Provision of the following insurance services (other than life insurance) related to the underwriting of climate related perils set out in Appendix A to this Annex :

- (a) accident and fire insurance;
- (b) health insurance;
- (c) travel insurance;
- (d) property insurance;
- (e) motor, marine, aviation and transport insurance.

⁷³⁷

As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

The activity is classified under NACE code K65.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1), point (b), of Regulation (EU) 2020/852 where it meets the technical screening criteria set out in this section.

Technical screening criteria

Substantial contribution to climate change adaptation

The activity complies with all of the following criteria:

1. Leadership in modelling and pricing of climate risks:

- (a) the insurance activity uses state-of-the-art modelling techniques that:
 - (i) properly reflect climate change risks;
 - (ii) do not only rely on historical trend;
 - (iii) integrate forward-looking scenarios.
- (b) the insurer publicly discloses how the climate change risks are considered in the insurance activity;
- (c) the insurance activity provides incentives for risk reduction by acting as a price signal of risk, including reduced premiums or deductibles, possibly based on supportive information on existing/possible actions, to policyholders who protect an asset or activity against natural catastrophes damages. After a climate risk event, the insurer provides information on the conditions under which coverage under the insurance activity could be renewed or maintained and in particular the benefits of building better in that context.

2. Product design:

- (a) insurance products sold under the insurance activity offer risk-based rewards for preventive actions taken by policyholders, including lower premiums where a policyholder has invested in adaptation measures;
 - (b) the distribution strategy for such products covers measures to ensure that policyholders are informed on the relevance of preventive measures that they could take, for the terms and conditions of the insurance coverage, including any impact of such measures on the insurance coverage or the premium level.
-

3. Innovative insurance coverage solutions:

- (a) insurance products sold under the insurance activity offer coverage for the climate-related perils⁷³⁸ where the demands and needs of policyholders require so;
- (b) depending on the demands and needs of individual customers, products may include specific risk transfer solutions such as protection against business interruption, contingent business interruption, other non-physical damage-related loss factors, cascading effects and interdependencies of hazards (secondary perils), cascading impacts of interacting natural and technological hazards, critical infrastructure failures.

4. Data sharing:

- (a) with due regard to Regulation (EU) 2016/679 of the European Parliament and of the Council⁷³⁹, a significant share of loss data related to insurer's activity is made available, free of charge, to external parties, including public authorities or scientists. Those external parties declare to use the data for purposes of enhancing adaptation to climate change by the society in a region, country or internationally and the reinsurer provides the data at a level of granularity sufficient for the use declared by the respective external parties.
- (b) where the insurer is not yet sharing such data with an external party for the aforementioned purpose, it has declared the intention to make its data available, free of charge, to interested third parties and has indicated under which conditions such data can be shared.
- (c) that declaration of intention to share available data is easily accessible, including on the insurer's website, for relevant external parties.

5. High level of service in post-disaster situation:

Claims under insurance activity, both ongoing and those from large-scale loss events resulting from climate risks, are processed in accordance with high handling standards for claims and in timely fashion in line with applicable law and there has been no failure to do so in the context of recent large-scale loss events. Information as regards procedures on additional measures in case of large-scale loss events is publicly available.

Do no significant harm ('DNSH')

⁷³⁸ See Appendix A.

⁷³⁹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L 119, 4.5.2016, p. 1.

(1) Climate change mitigation	The activity does not include insurance of the extraction, storage, transport or manufacture of fossil fuels or insurance of the use of vehicles, property or other assets for such purposes.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

10.2. Reinsurance

Description of the activity

Coverage of risks stemming from climate-related perils set out in Appendix A to this Annex ceded by the insurer to the reinsurer. The coverage is set out in an agreement between insurer and reinsurer specifying the insurers' products ("underlying product") from which the ceded risks originate. A reinsurance intermediary⁷⁴⁰ may be involved in the preparation or conclusion of the contractual agreement between the insurer and the reinsurer.

The activity is classified under NACE code K65.20 in accordance with to the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 11(1) point (b) of Regulation (EU) 2020/852 where it meets the technical screening criteria set out this section

Technical screening criteria

Substantial contribution to climate change adaptation

⁷⁴⁰ As defined in point (5) of Art. 2 of Directive (EU) 2016/97 of the European Parliament and of the Council of 20 January 2016 on insurance distribution, OJ L 26, 2.2.2016, p. 19.

The activity complies with all of the following criteria:

1. Leadership in modelling and pricing of climate risks:

- (a) the reinsurance activity uses state-of-the-art modelling techniques that:
 - (i) are used to properly reflect in the premium level the exposure, hazard and vulnerability to climate change risks as well as actions taken by the policyholder of the insurer to protect the insured asset or activity against those risks, where such information is provided by the insurer to the reinsurer;
 - (ii) do not only rely on historical trends;
 - (iii) integrate forward-looking scenarios;
- (b) the reinsurer discloses publicly how the risks stemming from climate-related perils are considered in the reinsurance activity.

2. Supporting development and supply of enabling non-life reinsurance products:

- (a) the reinsurance activity's underlying products cover risks stemming from climate-related perils and reward, in a risk-based manner, preventive actions taken by the insurer's policyholders, including lower premiums where a policyholder has invested in adaptation measures;
- (b) the reinsurance activity complies with one or more of the following criteria:
 - (i) where desired by the insurer, the reinsurer engages with the insurer, either directly or via a reinsurance intermediary, during the development of the underlying product by:
 - discussing possible reinsurance solutions that the reinsurer is willing to offer in relation to that product. The final product is brought to market using one of the reinsurance solutions that were discussed with the reinsurer during the product development phase;
 - providing data or other technical advice enabling the insurer to price the coverage for risks stemming from climate-related perils as well as risk-based rewards for preventive actions taken by the insurer's policyholders;
 - (ii) the insurer would likely reduce or discontinue its coverage under the underlying product without the reinsurance agreement or a comparable reinsurance agreement in place;
 - (iii) the reinsurer provides, as part of the business relationship with the insurer or the reinsurance intermediary, data or other technical advice or both enabling the insurer to offer coverage of risks stemming from climate-related perils and the coverage allows for risk-based rewards for preventive

actions taken by the insurer's policyholders.

3. Innovative reinsurance coverage solutions:

- (a) reinsurance products sold under the reinsurance activity offer coverage for risks stemming from climate-related perils where the demands and needs of the insurer's clients, based on the underlying products, require so. Such insurance products appropriately reflect risk-based rewards for preventive actions taken by the insurer's policyholders;
- (b) depending on the demands and needs of the individual customers of the insurer, reinsurance products may include specific risk transfer solutions which may include protection against business interruption, contingent business interruption, other non-physical damage-related loss factors, cascading effects and interdependencies of hazards (secondary perils), cascading impacts of interacting natural and technological hazards or critical infrastructure failures.

4. Data sharing:

- (a) with due regard to Regulation (EU) 2016/679, a significant share of loss data related to the reinsurer's activity is made available, free of charge, to external parties, including public authorities or scientists. The parties declare to use the data for purposes of enhancing adaptation to climate change by the society in a region, country or internationally and the reinsurer provides the data at a level of granularity sufficient for the use declared by the respective external parties;
- (b) where the reinsurer is not yet sharing such data with an external party for the aforementioned purpose, it has declared the intention to make its data available, free of charge, to interested third parties and has indicated under which conditions such data can be shared;
- (c) that declaration of intention to share available data is easily accessible, including on the reinsurer's website, for relevant external parties.

5. High level of service in post-disaster situation:

Claims under the reinsurance activity, both ongoing and those from large-scale loss events resulting from risks stemming from climate-related perils, are processed in accordance with high handling standards for claims and in timely fashion in line with applicable law and there has been no failure to do so in the context of recent large-scale loss events. Where appropriate, the reinsurer supports the insurer or the reinsurance intermediary in assessing the claims from the underlying product. Information as regards procedures on additional measures by the reinsurer in case of large-scale loss events is publicly available.

Do no significant harm ('DNSH')

(1) Climate change mitigation	The reinsurance activity does not cover cession of insurance of the extraction, storage, transport or manufacture of fossil fuels or the cession of insurance of the use of vehicles, property or other assets for such purposes.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A

11. EDUCATION

Description of the activity

Public or private education at any level or for any profession. The instructions may be oral or written and may be provided by radio, television, internet or via correspondence. It includes education by the different institutions in the regular school system at its different levels as well as adult education and literacy programmes, including military schools, academies and prison schools at their respective levels.

The activity is classified under NACE code P85 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less
-

than 10 years, the assessment is performed, at least by using downscaling of climate projections;

- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁴¹, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁴² or rely on blue or green infrastructure⁷⁴³ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	N/A

⁷⁴¹ Such as Copernicus services managed by the European Commission.

⁷⁴² In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁴³ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

circular economy	
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

12. HUMAN HEALTH AND SOCIAL WORK ACTIVITIES

12.1. Residential care activities

Description of the activity

Provision of residential care combined with either nursing, supervisory or other types of care as required by the residents. Facilities are a significant part of the production process and the care provided is a mix of health and social services with the health services being largely some level of nursing services.

The activity is classified under NACE code Q87 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁴⁴, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁴⁵ or rely on blue or green infrastructure⁷⁴⁶ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

⁷⁴⁴ Such as Copernicus services managed by the European Commission.

⁷⁴⁵ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁴⁶ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(6) Protection and restoration of biodiversity and ecosystems	N/A
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13. ARTS, ENTERTAINMENT AND RECREATION

13.1. Creative, arts and entertainment activities

Description of the activity

Creating, arts and entertainment activities include the provision of services to meet the cultural and entertainment interests of their customers. This includes the production and promotion of, and participation in, live performances, events or exhibits intended for public viewing and the provision of artistic, creative or technical skills for the production of artistic products and live performances. These activities exclude the operation of museums of all kinds, botanical and zoological gardens, the preservation of historical sites and nature reserves activities, gambling and betting activities as well as sports and amusement and recreation activities.

The activity is classified under NACE code R90 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate

projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁴⁷, the best available science for vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁴⁸ or rely on blue or green infrastructure⁷⁴⁹ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A

⁷⁴⁷ Such as Copernicus services managed by the European Commission.

⁷⁴⁸ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁴⁹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

(6) Protection and restoration of biodiversity and ecosystems	N/A
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13.2. Libraries, archives, museums and cultural activities

Description of the activity

Libraries, archives, museums and cultural activities includes the activities of libraries and archives, the operation of museums of all kinds, botanical and zoological gardens, the operation of historical sites and nature reserves activities. These activities also include the preservation and exhibition of objects, sites and natural wonders of historical, cultural or educational interest, including world heritage sites. These activities exclude sports and amusement and recreation activities such as the operation of bathing beaches and recreation parks.

The activity is classified under NACE code R91 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁵⁰, the best available science for

⁷⁵⁰ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁵¹ or rely on blue or green infrastructure⁷⁵² to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	N/A

⁷⁵¹ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁵² See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

13.3. Motion picture, video and television programme production, sound recording and music publishing activities

Description of the activity

Motion picture, video and television programme production, sound recording and music publishing activities include the production of theatrical and non-theatrical motion pictures whether on film, video tape or disc for direct projection in theatres or for broadcasting on television, supporting activities such as film editing, cutting or dubbing, distribution of motion pictures and other film productions to other industries as well as motion picture or other film productions projection. Buying and selling of motion picture or other film productions distribution rights is also included. These activities also include the sound recording activities, including the production of original sound master recordings, releasing, promoting and distributing them, publishing of music as well as sound recording service activities in a studio or elsewhere.

The activity is classified under NACE code J59 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change adaptation

The economic activity has implemented physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity.

The physical climate risks that are material to the activity have been identified from those listed in Appendix A to this Annex by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

- (a) for investments into adaptation solutions activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;
- (b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The climate projections and assessment of impacts are based on best practice and available guidance and take into account the open source models⁷⁵³, the best available science for

⁷⁵³ Such as Copernicus services managed by the European Commission.

vulnerability and risk analysis and related methodologies in accordance with the most recent Intergovernmental Panel on Climate Change reports and scientific peer-reviewed publications.

The adaptation solutions implemented:

- (a) do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities;
- (b) favour nature-based solutions⁷⁵⁴ or rely on blue or green infrastructure⁷⁵⁵ to the extent possible;
- (c) are consistent with local, sectoral, regional or national adaptation efforts;
- (d) are monitored and measured against pre-defined indicators and remedial action is considered where those indicators are not met;
- (e) where the solution implemented is physical and consists in an activity for which technical screening criteria have been specified in this Annex, the solution complies with the do no significant harm technical screening criteria for that activity.

Do no significant harm ('DNSH')

(1) Climate change mitigation	N/A
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	N/A

⁷⁵⁴ In accordance with Resolution 069 on Defining Nature-Based Solutions of the International Union for Conservation of Nature (IUCN), <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>.

⁷⁵⁵ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Green Infrastructure (GI) — Enhancing Europe's Natural Capital (COM/2013/0249 final).

DRAFT

APPENDIX A: CLASSIFICATION OF CLIMATE-RELATED HAZARDS

	Temperature-related	Wind-related	Water-related	Solid mass-related
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust and sandstorms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	