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Commission Notice

Technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation

(2021/C 58/01)

This document is based on the text of the Regulation on the Recovery and Resilience Facility as politically agreed between the European Parliament and the Council in December 2020 (2020/0104 (COD)) ([1]).

This technical guidance is intended to assist national authorities in the preparation of the Recovery and Resilience Plans under the Recovery and Resilience Facility Regulation. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law.

The Regulation establishing the Recovery and Resilience Facility (RRF) provides that no measure included in a Recovery and Resilience Plan (RRP) should lead to significant harm to environmental objectives within the meaning of Article 17 of the Taxonomy Regulation ([2]) ([3]). According to the RRF Regulation, the assessment of the RRPs should ensure that each and every measure (i.e. each reform and each investment) within the plan complies with the 'do no significant harm' principle (DNSH) ([4]).

The RRF Regulation also states that the Commission should provide technical guidance on how DNSH should apply in the context of the RRF ([5]). The present document provides this technical guidance. This guidance is limited to setting out the modalities of the DNSH application in the context of the RRF only, taking into consideration its specific characteristics, and is without prejudice to the application and implementation of the Taxonomy Regulation and other legislative acts adopted in relation to other EU funds. This guidance aims to clarify the meaning of DNSH and how it should be applied in the context of the RRF, and how the Member States can demonstrate that their proposed measures in the RRP comply with DNSH. Concrete worked out examples on how DNSH should be demonstrated in the plans are provided in Annex IV to this guidance.

([1]) https://data.consilium.europa.eu/doc/document/ST-14310-2020-INIT/en/pdf. The numbering and the wording of the enacting provisions are subject to modifications during the ongoing legal revision.

([2]) See Article 4a ('*Horizontal principles*') of the RRF Regulation (which states that the RFF can only support measures that respect DNSH) and Articles 15 and 16 ('*Recovery and Resilience Plan*' and '*Commission assessment*') (which further set out that the RRPs should explain and be assessed in light of '*how the plan ensures that no measure for the implementation of reforms and investments included in the plan makes a significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852 ("do no significant harm")*').

([3]) The 'Taxonomy Regulation' refers to Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, by setting out a classification system (or 'taxonomy') for environmentally sustainable economic activities.

([4]) The '*Assessment guidelines for the Facility*' annexed to the RRF Regulation set out a number of assessment guidelines as a basis for the Commission to assess the proposals for RRPs as submitted by the Member States. The Commission is therein requested to use a rating system, ranging from A to C, for all the '*Commission assessment*' criteria listed in Article 16(3) of the Regulation. Assessment criterion (d) clarifies that for the assessment of DNSH, the Commission has only two rating options, A or C. 'A' if no measure within a RRP leads to significant harm to environmental objectives and 'C' if one or more measures lead to significant harm to environmental objectives (within the meaning of Article 17 ('*Significant harm to environmental objectives*') of the Taxonomy Regulation). That Annex stipulates that a RRP does not comply satisfactorily with the assessment criteria as from the occurrence of a single 'C'. In such a case, the plan could not be endorsed by the Commission.

([5]) This technical guidance document supplements the initial guidance already provided by the Commission in the Annual Sustainable Growth Strategy 2021, and the accompanying staff working document and updates thereof.

1. **What is 'Do No Significant Harm'?**

For the purposes of the RRF Regulation, DNSH is to be interpreted within the meaning of Article 17 of the Taxonomy Regulation. This article defines what constitutes 'significant harm' for the six environmental objectives covered by the Taxonomy Regulation:

1. An activity is considered to do significant harm to *climate change mitigation* if it leads to significant greenhouse gas (GHG) emissions;

2. An activity is considered to do significant harm to *climate change adaptation* if it leads to an increased adverse impact of the current climate and the expected future climate, on the activity itself or on people, nature or assets ([6]);

3. An activity is considered to do significant harm to the *sustainable use and protection of water and marine resources* if it is detrimental to the good status or the good ecological potential of bodies of water, including surface water and groundwater, or to the good environmental status of marine waters;

4. An activity is considered to do significant harm to the *circular economy*, including waste prevention and recycling, if it leads to significant inefficiencies in the use of materials or in the direct or indirect use of natural resources, or if it significantly increases the generation, incineration or disposal of waste, or if the long-term disposal of waste may cause significant and long-term environmental harm;

5. An activity is considered to do significant harm to *pollution prevention and control* if it leads to a significant increase in emissions of pollutants into air, water or land;

6. An activity is considered to do significant harm to the *protection and restoration of biodiversity and ecosystems* if it is significantly detrimental to the good condition and resilience of ecosystems, or detrimental to the conservation status of habitats and species, including those of Union interest.

2. **How should DNSH be applied in the context of the RRF?**

This section provides guidance on key issues underlying the DNSH assessment: the fact that all measures need to be addressed as part of the DNSH assessment (Section 2.1), although for certain measures the DNSH assessment can take a simplified form (Section 2.2); the relevance of EU environmental legislation and impact assessments (Section 2.3); the core guiding principles of the assessment (Section 2.4); and the applicability of the technical screening criteria of the Taxonomy Regulation (Section 2.5).

2.1. *All measures need to be addressed as part of the DNSH assessment*

Member States need to provide a DNSH assessment for each and every measure ([7]) of their RRP. According to the RRF Regulation, *no measure* included in a RRP should entail significant harm to environmental objectives, and the Commission cannot assess positively the RRP if one or more measures do not comply with DNSH. As a consequence, Member States need to provide an *individual* DNSH assessment for each measure within each component of the plan ([8]). Therefore, the DNSH assessment is not to be carried out at the level of the plan or of individual components of the plan, but at measure level. This applies equally to measures that are considered to provide a contribution to the green transition and all other measures included in the RRPs ([9]).

([6]) This means specifically that significant harm to the objective of climate change adaptation can be done by either (i) not adapting an activity to the adverse impacts of climate change when that activity is at risk of such impacts (such as a building in a flood-prone area), or (ii) by maladaptation, when putting in place an adaptation solution that protects one area ('*people, nature or assets*'), while increasing risks in another area (such as building a dyke around a plot in a flood plain which results in shifting the damages to a neighbouring plot that is not protected).

([7]) According to Article 14 ('*Eligibility*') of the RRF Regulation, '*Recovery and resilience plans eligible for financing under this Facility instrument shall comprise measures for the implementation of reforms and public investment.*'

([8]) Compliance with DNSH is assessed at the level of each *measure* within the context of the RRF, while Article 17 *('Significant harm to environmental objectives')* of the Taxonomy Regulation refers to *economic activities*. A measure under the RRF (i.e. an investment or a reform) is an intervention that may constitute an economic activity or that may trigger (changes to) economic activities. Therefore, for the purposes of the RRF, *economic activities* as set out in Article 17 of the Taxonomy Regulation are interpreted as *measures* in this guidance.

([9]) As such, the scope of activities covered by the DNSH assessment under the RRF Regulation is different, and considerably broader than the one under the Taxonomy Regulation, which aims to identify environmentally sustainable economic activities. It thus classifies and sets out criteria for environmentally sustainable economic activities that substantially contribute to the environmental objectives listed in Articles 10 to 15 of that Regulation, and do not significantly harm those objectives. This is a different aim than the RRF Regulation, which aims to demonstrate that a wide range of measures do no significant harm to any of the environmental objectives.

Member States need to assess both reforms and investments. Under the RRF, Member States need to put forward coherent packages of measures, including both reforms and investments (in accordance with Article 14(1) of the RRF Regulation). The DNSH assessment needs to be carried out not only for investments, but also for reforms. Reforms in some sectors, including industry, transport and energy, while having the potential to significantly contribute to the green transition, can also entail a risk of significant harm to a number of environmental objectives, depending on how they are designed ([10]). On the other hand, reforms in other sectors (e.g. education and training, public administration, and arts and culture) will likely have a limited risk of environmental harm (see simplified approach in Sections 2.2 and 3), independently of their potential contribution to the green transition, which might still be significant. The present guidance aims to support Member States in carrying out the DNSH assessment for both investments and reforms. The fact that the DNSH assessment must be carried out for reforms should not be understood as a deterrent for inclusion in the RRPs of important reforms in the areas of industry, transport and energy, given that such measures have a major potential to foster the green transition and to promote the recovery.

2.2. *For certain measures, the DNSH assessment can take a simplified form*

While all measures require a DNSH assessment, a simplified approach can be taken for measures that have no or an insignificant foreseeable impact on all or some of the six environmental objectives. By design, certain measures might have a limited bearing on one or several environmental objectives. In this case, Member States may provide a brief justification for those environmental objectives and focus the substantive DNSH assessment on environmental objectives that may be significantly impacted (see Section 3, Step 1). For instance, a labour market reform intended to increase the overall level of social protection for the self-employed would have no or an insignificant foreseeable impact on any of the six environmental objectives, and a brief justification could be used for all six objectives. Similarly, for some simple energy efficiency measures, such as the replacement of existing windows with new, energy-efficient windows, a brief justification could be used as regards compliance with DNSH for the climate change mitigation objective. By contrast, this simplified approach is unlikely to be applicable to some investments and reforms in a number of areas (e.g. energy, transport, waste management, industry) which have a higher risk to affect one or more of the environmental objectives.

When a measure is tracked as 100 % supporting one of the six environmental objectives, this measure is considered compliant with DNSH for that objective ([11]). Some measures are tracked as supporting climate change or other environmental objectives in the context of the RRF, according to the 'Methodology for climate tracking' annexed to the RRF Regulation. Where a measure is tracked with a 100 % coefficient as supporting climate change objectives, DNSH is considered complied with for the relevant climate change objective (i.e. climate change mitigation or adaptation) ([12]). Where a measure is tracked with a 100 % coefficient as supporting environmental objectives other than the climate-related ones, DNSH is considered complied with for the relevant environmental objective (i.e. water and marine resources, the circular economy, pollution prevention and control, or biodiversity and ecosystems). In each case, Member States will have to identify and substantiate which of the six environmental objectives of the Taxonomy Regulation the measure supports. Member States would nevertheless need to demonstrate that the measure does not significantly harm the remaining environmental objectives ([13]).

([10]) For instance, a reform that may lead to an increase in funding for fossil fuels through government-owned banks and financial institutions, or an increase in explicit or implicit subsidies for fossil fuels, could be considered to risk causing significant harm to the objectives of climate change mitigation and pollution prevention and control. These considerations would need to be reflected in the DNSH assessment.

([11]) To reflect the extent to which a measure contributes to the overarching climate targets set out in the RRF Regulation and compute the overall shares of the plan's total allocation related to climate, Member States should use the methodology, intervention fields and associated coefficients for climate tracking, according to the 'Methodology for climate tracking' annexed to the RRF Regulation. Where the Commission has not validated the choice of intervention field and coefficient proposed by a Member State, the measure will not be considered automatically compliant with DNSH for the relevant objective(s), and the DNSH assessment will still need to be carried out.

([12]) For instance, a support/renewal scheme for the replacement of outdated rolling stock with zero tailpipe emission rolling stock could fall in this category.

([13]) The approach mentioned in this paragraph is not applicable for measures tracked with a 40 % coefficient. For such measures, Member States will need to provide an explanation of why the measure is compliant with DNSH, taking into account the general principles outlined in the rest of this guidance document (for example, Member States will need to confirm that no fossil fuels are involved, or that the criteria spelled out in Annex III are complied with for the climate change mitigation objective). Where measures tracked with a 40 % coefficient have no or an insignificant foreseeable impact on a specific environmental objective, or where they 'contribute substantially' to a specific environmental objective pursuant to the Taxonomy Regulation, Member States will still be able to apply a simplified approach for that environmental objective (as per the first and third paragraphs of Section 2.2).

Similarly, where a measure 'contributes substantially' ([14]), pursuant to the Taxonomy Regulation, to one of the six environmental objectives, this measure is considered compliant with DNSH for that objective ([15]). For example, a Member State putting forward a measure that supports the manufacture of energy efficiency equipment for buildings (e.g. presence and daylight controls for lighting systems) would not have to carry out a substantive DNSH assessment for the objective of climate change mitigation, in case the Member State can show that the proposed measure 'contributes substantially' to that environmental objective, in line with the Taxonomy Regulation. In such a case, Member States would only have to demonstrate the absence of significant harm to the other five environmental objectives.

2.3. *Relevance of EU law and impact assessments*

Complying with the applicable EU and national environmental law is a separate obligation and does not waive the need for a DNSH assessment. All measures proposed in the RRPs must comply with the relevant EU legislation, including the relevant EU environmental legislation. Although compliance with the existing EU legislation provides a strong indication that the measure does not entail environmental harm, it does not automatically imply that a measure complies with DNSH, in particular as some of the objectives covered by Article 17 are not yet fully reflected in the EU environmental legislation.

Impact assessments related to the environmental dimensions or the sustainability proofing of a measure should be taken into account for the DNSH assessment. Whilst they do not automatically entail that no significant harm is done, they constitute a strong indication for the absence of significant harm for a number of the relevant environmental objectives. Therefore, the fact that a Member State has carried out an Environmental Impact Assessment (EIA) in line with the Directive 2011/92/EU, a Strategic Environmental Assessment (SEA) in line with Directive 2001/42/EC ([16]), or Sustainability / Climate Proofing, as laid down in the guidance from the Commission on sustainability proofing under the InvestEU Regulation, for a particular measure included in the RRP will support the arguments brought forward by the Member State in the context of the DNSH assessment. For instance, depending on the exact design of a measure, carrying out an EIA and implementing the required mitigation steps for protecting the environment can in some cases, and in particular when it comes to investments in infrastructure, be sufficient for a Member State to demonstrate compliance with DNSH for some of the relevant environmental objectives (notably, the sustainable use and protection of marine and water resources ([17]), as well as protection and restoration of biodiversity and ecosystems ([18])). However, this does not exempt the Member State from carrying out the DNSH assessment for that measure since an EIA, SEA or proofing might not cover all aspects that are required as part of the DNSH assessment ([19]). This is because neither the legal obligations contained in the EIA and SEA Directives, nor the approach set out in the relevant Commission guidelines on proofing, are the same as those set out in Article 17 ('*Significant harm to environmental objectives*') of the Taxonomy Regulation ([20]).

([14]) Articles 10 to 16 of the Taxonomy Regulation define what 'substantial contribution' means for each of the six environmental objectives, as well as for 'enabling activities'. To benefit from the simplified approach outlined in this paragraph, Member States would need to show that the measure 'contributes substantially' to one or more of the environmental objectives pursuant to Articles 10 to 16 of the Taxonomy Regulation (see also Section 2.5).

([15]) This option is particularly relevant for activities that are identified as making a substantial contribution to an environmental objective under the Taxonomy Regulation, but which are not tracked as 100 % supporting climate or environment objectives under the 'Methodology for climate tracking' annexed to the RRF Regulation. In the area of climate change mitigation, these activities include, for example: specific low- and zero-emission light-duty vehicles; specific zero- or low-emission vessels for water transport; specific low- and zero-emission heavy-duty vehicles; electricity transmission and distribution infrastructure; hydrogen transmission and distribution networks; specific waste management activities (e.g. separately collected non-hazardous waste that is segregated at source and prepared for reuse/recycling); and breakthrough circular economy research, development and innovation.

([16]) An environmental assessment is a procedure that ensures that the environmental implications of plans/programmes/projects are taken into account before the decisions are made. Environmental assessments can be undertaken for individual projects, such as a dam, motorway, airport or factory, on the basis of Directive 2011/92/EU (known as 'Environmental Impact Assessment' – EIA Directive) or for public plans or programmes on the basis of Directive 2001/42/EC (known as 'Strategic Environmental Assessment' – SEA Directive).

([17]) If the EIA includes an assessment of the impact on water in accordance with Directive 2000/60/EC and the risks identified have been addressed in the design of the measure.

([18]) Without prejudice to additional assessments required by Directives 2009/147/EC and 92/43/EEC if the operation is 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).

([19]) Conversely, the DNSH assessment does not waive the obligation for an EIA/SEA, climate, environmental or sustainability proofing, if this is required by existing EU legislation, such as for projects financed through InvestEU or the Connecting Europe Facility.

([20]) For example, an EIA is required for the construction of crude-oil refineries, coal-fired thermal power stations and projects involving the extraction of petroleum or natural gas. However, these types of measures would not be compliant with DNSH to climate change mitigation of Article 17 *('Significant harm to environmental objectives')* of the Taxonomy Regulation, which state that significant harm is done if an activity 'leads to significant GHG emissions'. Similarly, while the construction of a new airport requires an EIA, on the basis of DNSH to climate change mitigation, only measures related to low-carbon airport infrastructure such as investments in energy-efficient airport buildings, on-site renewable grid connection upgrades of airport infrastructure and related services are likely to be compliant.

2.4. *Guiding principles for the DNSH assessment*

In the context of the RRF, the *direct* and *primary indirect* impacts of a measure are relevant for the DNSH assessment ([21]). Direct impacts may reflect effects of the measure at project-level (e.g. production plant, protected area) or at system-level (e.g. railway network, public transport system), and that occur at the time of implementation of the measure. Primary indirect impacts may reflect effects that occur outside of those projects or systems and may materialise after the implementation of the measure or beyond the timeline of the RRF but are reasonably foreseeable and relevant. An example of a *direct* impact in the area of road transport would be the use of materials during the construction of the road. An example of a *primary indirect* impact would be the expected future GHG emissions due to an increase in overall traffic during the use-phase of the road.

The DNSH assessment needs to consider the life cycle of the activity that results from the measure. Based on Article 17 ('*Significant harm to environmental objectives*') of the Taxonomy Regulation, 'significant harm' in the context of the RRF is assessed by taking into account the life cycle. Applying life cycle considerations rather than carrying out a life cycle assessment suffices for the purposes of the DNSH assessment in the context of the RRF ([22]). The scope of the assessment should encompass the production, use and end-of-life phases – wherever most harm is to be expected. For instance, for a measure supporting the purchase of vehicles, the assessment should take into account, among others, the pollution (e.g. emissions to air) generated when assembling, transporting and using the vehicles, and the appropriate management of the vehicles at their end-of-life. In particular, an appropriate end-of-life management of battery and electronic elements (e.g. their reuse and/or the recycling of critical raw materials therein) should ensure that no significant harm is done to the environmental objective of the circular economy.

Measures promoting greater electrification (e.g. industry, transport and buildings) are considered compatible with the DNSH assessment for the environmental objective of climate change mitigation. To enable the shift to an effective climate-neutral economy, measures leading to greater electrification of key sectors such as industry, transport and buildings (e.g. investment in electricity transmission and distribution infrastructure; electric roadside infrastructure; electricity storage; mobility batteries; heat pumps) should be encouraged. Electricity generation is not yet a climate-neutral activity across the EU (the CO_2 intensity of the electricity mix differs across Member States), and in principle the increased consumption of carbon-intensive electricity represents a primary indirect effect of such measures, at least in the short term. However, the deployment of these technologies and infrastructure is required for a climate-neutral economy, together with measures to achieve 2030 and 2050 GHG emissions reduction targets, and a policy framework for electricity decarbonisation and the development of renewables is already in place in the EU. In this context, these investments should be deemed as complying with DNSH in the area of climate change mitigation under the RRF, provided that Member States justify that greater electrification is accompanied by increased renewables generation capacity at the national level. In addition, Member States would nevertheless need to demonstrate that these measures do not significantly harm the other five environmental objectives.

For economic activities where there is a technologically and economically feasible alternative with low environmental impact, the assessment of the negative environmental impact of each measure should be carried out against a 'no intervention' scenario by taking into account the environmental effect of the measure in absolute terms ([23]). This approach consists of considering the environmental impact of the measure, compared to a situation with no negative environmental impact. The impact of a measure is not assessed in comparison to the impact of another existing or envisaged activity that the measure in question may be replacing ([24]). For instance, if a hydropower plant requiring building a dam on an untouched area is assessed,

([21]) This approach follows Article 17 *('Significant harm to environmental objectives')* of the Taxonomy Regulation, which requires taking into account the environmental impacts of the activity and of the products and services provided by that activity throughout their life cycle.

([22]) In practice, this means that attributional or consequential life cycle analyses (e.g. including the indirect environmental impacts of technological, economic or social changes due to the measure) are not required. However, evidence from existing life cycle analyses could be used to substantiate the DNSH assessment.

([23]) This approach applies in particular to measures under the RRF that relate to public investments, or that directly entail a government expenditure. For measures that relate to the implementation of reforms, as a rule the DNSH assessment should be carried out by reference to the status quo before the implementation of the measure.

([24]) This approach is in line with the logic of the Taxonomy Regulation: under the draft delegated act, several of the technical screening criteria on DNSH are based on *absolute* criteria, such as specific emissions thresholds, (e.g. CO_2 limits for adaptation solutions in electricity generation activities or for passenger vehicles). The approach is further supported by the precautionary principle, which is one of the guiding principles of environmental laws in the EU, including the Taxonomy Regulation (Recital 40 and Article 19(1)(f)) and stems from the fact that harm to the environment needs to be seen from an absolute, not relative perspective (e.g. global warming arises due to the absolute level of the stock of GHG emissions).

the impact of the dam would be evaluated against a scenario where the concerned river remains in its natural state rather than considering a different possible alternative use of the area. Similarly, if a scrappage scheme aims to replace inefficient cars with more efficient cars relying on internal combustion-engines, the impact of the new internal combustion-engine cars would be evaluated in absolute terms as low-impact alternatives exist (e.g. zero-emission cars), rather than compared with the impact of the inefficient cars they are replacing (see Annex IV, Example 5, showing an example of non-compliance with DNSH).

For economic activities where there is no technologically and economically ([25]) feasible alternative with low environmental impact, Member States may demonstrate that a measure does no significant harm by adopting the best available levels of environmental performance in the sector. In these cases, DNSH would be assessed compared to the best available levels of environmental performance in the sector. A number of conditions need to apply for this approach to hold, including the fact that the activity leads to a significantly better environmental performance than available alternatives, avoids environmentally harmful lock-in effects, and does not hamper the development and deployment of low-impact alternatives ([26]), ([27]). This approach should be applied at sector-level, i.e., all alternatives within the sector should be explored ([28]).

In light of the conditions set out above, measures related to power and/or heat generation using fossil fuels, as well as related transmission and distribution infrastructure, as a general rule should not be deemed compliant under DNSH for the purposes of the RRF, given the existence of low-carbon alternatives. From a climate change mitigation perspective, limited exceptions for measures related to power and/or heat generation using natural gas, as well as related transmission and distribution infrastructure, can be made to this general rule, on a case-by-case basis. This is relevant specifically to Member States that face significant challenges in the transition away from more carbon-intensive energy sources, such as coal, lignite or oil, and where a measure or combination of measures can therefore lead to a particularly large and rapid reduction in GHG emissions. Those exceptions will need to comply with a number of conditions laid out in Annex III, in order to avoid carbon-intensive lock-in effects and be in line with the EU's decarbonisation objectives for 2030 and 2050. In addition, Member States will need to demonstrate compliance with DNSH of these measures for the remaining five environmental objectives.

To ensure that measures are future-proof and do not lead to harmful lock-in effects, and to promote beneficial dynamic effects, accompanying reforms and investments may be required. Examples of such accompanying measures include equipping roads with low-carbon infrastructure (e.g. charging stations for electric vehicles or hydrogen fuelling stations) and putting in place appropriate road access or congestion charges, or broader reforms and investments to decarbonise national electricity mixes or transport systems. While these additional reforms and investments could be addressed within the same measure, by way of a sub-measure, this might not always be possible. Thus, flexibility should be granted to allow Member States in limited circumstances and on a case-by-case basis to demonstrate avoidance of adverse lock-in effects by relying on accompanying measures in the RRP.

([25]) To show that an alternative with low environmental impact is not economically feasible, Member States need to take into account the costs arising across the lifetime of the measure. These costs include negative environmental externalities and future investment needs required to switch to an alternative with low environmental impact, avoiding lock-ins or hampering the development and deployment of low-impact alternatives.

([26]) Recitals 39 and 41, as well as Article 10(2) of the Taxonomy Regulation, set out the definition of 'transitional activities'. The conditions described here draw from that definition but are not the same, given that the Taxonomy Regulation defines criteria for transitional activities making a substantial contribution, while the present guidance sets out criteria for DNSH only, and as such, it is applicable to a broader set of measures and applies a different substantive test.

([27]) This approach, and the DNSH assessment overall, is without prejudice to other considerations affecting the assessment of measures in the context of the RRPs, including considerations associated with State aid control, consistency with other EU funds, and possible crowding-out of private investment. In relation to measures supporting activities covered by the EU Emission Trading System (ETS) in particular, in order not to distort the market signals put in place by the ETS and in line with the approach under the Just Transition Fund, activities with projected CO_2 equivalent emissions that are not substantially lower than the relevant benchmarks established for free allocation should generally not be supported under the RRF.

([28]) In cases where even the best available levels of environmental performance would still lead to environmentally harmful lock-in effects, measures supporting research and development for lower impact alternatives should be considered, in line with intervention fields 022 and 023, set out in the 'Methodology for climate tracking' annexed to the RRF Regulation.

Compliance with DNSH, along these guiding principles, should be integrated in the design of measures, including at the level of milestones and targets. The description of measures in the RRP should reflect the relevant DNSH considerations from the outset. This may mean integrating DNSH considerations and necessary mitigating steps to be taken to ensure compliance into corresponding milestones and targets or in tendering and procurement processes ([29]). For example, a measure setting out investments in a large road infrastructure project, which required an EIA to be carried out before issuing the relevant permits, could specify as a milestone the implementation of the required mitigation steps for protecting the environment that resulted from the EIA. When it comes to the tendering or procurement process for this type of project, the measure's design could set out that tender or procurement specifications will contain specific conditions related to DNSH. This could include, for instance, a minimum percentage of construction and demolition waste that will be prepared for reuse and recycling. Likewise, accompanying measures that support the shift to cleaner modes of transport, such as reforms related to road pricing, investments supporting modal shift to rail, inland waterways or incentives for the use of public transport, should be integrated in the description of the measure. Measures of a more general nature, such as broad industry support schemes (e.g. financial instruments covering investments in companies across multiple sectors), should be designed to ensure adherence of the relevant investments with DNSH.

2.5. *Applicability of the technical screening criteria of the Taxonomy Regulation*

Member States are not required to refer to the 'technical screening criteria' (quantitative and/or qualitative criteria) established according to the Taxonomy Regulation to substantiate compliance with DNSH. According to the RRF Regulation ([30]), the entry into force of the delegated acts containing technical screening criteria ([31]) should not affect the technical guidance provided by the Commission. However, when assessing compliance with DNSH, Member States have the option of relying upon the technical screening criteria in the delegated acts under the Taxonomy Regulation. They can also refer to the draft version of the delegated acts.

3. **How should Member States concretely show in their plans that the measures comply with DNSH?**

To facilitate the Member States' assessment and presentation of DNSH in their RRPs, the Commission has prepared a checklist (see Annex I), which should be used by Member States to support their analysis of how each measure relates to DNSH. The Commission will then use this information to assess whether and how each measure in RRPs respects DNSH, in accordance with the criteria established in the RRF Regulation.

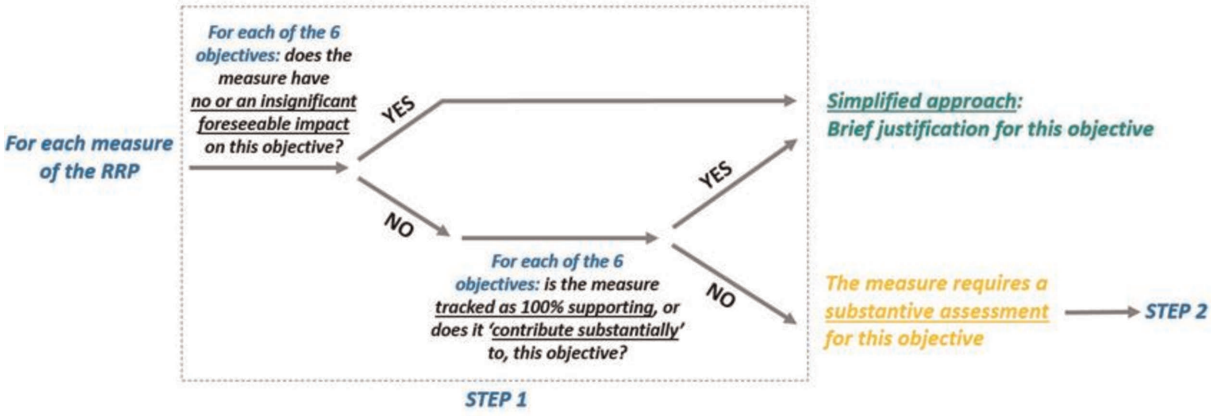
The Commission invites Member States to answer the questions set out in the checklist, and integrate the answers into their RRP, as part of the description of each measure (see Part 2, Section 8 of the Commission Template – *do no significant harm*). Where necessary for supporting the assessment provided in the checklist, Member States are also invited to provide additional analysis and/or supporting documents, in a targeted and limited manner, to further substantiate their replies to the list of questions.

The checklist is based on the following decision tree, which should be used for each measure of the RRP. The section below provides more information on the two steps of the decision tree.

([29]) Milestones and targets, including those reflecting compliance with DNSH, are subject, like all other milestones and targets, to Article 19a of the RRF Regulation (*'Rules on payments, suspension and termination of agreements regarding financial contributions and loan support'*).

([30]) Recital 11b of the RRF Regulation.

([31]) Based on Article 3(d) of the Taxonomy Regulation (*'Criteria for environmentally sustainable economic activities'*), the Commission is empowered to adopt delegated acts containing detailed technical screening criteria (quantitative and/or qualitative criteria) to determine the conditions under which a specific economic activity can (i) qualify as substantially contributing to one of the six environmental objectives; and (ii) do no significant harm to any of the other environmental objectives. So far, one delegated act related to climate mitigation and climate change adaptation has been published for consultation. It can be found at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_-WORKFLOW



Decision tree

Step 1: Filter the six environmental objectives to identify those that require a substantive assessment

As a first step, Member States are invited to complete Part 1 of the checklist (see Annex I), to identify which of the six environmental objectives require a substantive DNSH assessment of the measure. This first, high-level screening will facilitate Member States' analysis, by distinguishing between environmental objectives for which the DNSH assessment will require a substantive assessment, and those for which a simplified approach (see Section 2.2) can be sufficient.

Part 1 of the checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation			
Climate change adaptation			
The sustainable use and protection of water and marine resources			
The circular economy, including waste prevention and recycling			
Pollution prevention and control to air, water or land			
The protection and restoration of biodiversity and ecosystems			

Where the answer is 'no', Member States are asked to provide a brief justification (in the right-hand column), why the environmental objective does not require a substantive DNSH assessment of the measure, based on one of the following cases (to be indicated by Member States) (see Section 2.2):

a. The measure has no or an insignificant foreseeable impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle, given its nature, and as such is considered compliant with DNSH for the relevant objective;

b. The measure is tracked as supporting a climate change or environmental objective with a coefficient of 100 %, and as such is considered compliant with DNSH for the relevant objective;

c. The measure 'contributes substantially' to an environmental objective, pursuant to the Taxonomy Regulation, and as such is considered compliant with DNSH for the relevant objective.

For RRP measures for which the simplified approach would suffice, the requested explanations (right-hand column) can be limited to a minimum and if useful grouped together, allowing Member States to focus on the demonstration of the DNSH assessment for those measures where a substantive analysis of possible significant harm is required.

Where the answer is 'yes', Member States are invited to proceed to Step 2 of the checklist for the corresponding environmental objectives.

For worked out examples in relation to this step, see Annex IV.

Step 2: Provide a substantive DNSH assessment for those environmental objectives that require it

As a second step, for each measure of the plan, Member States are invited to use Part 2 of the checklist (see Annex I) to perform a substantive DNSH assessment for those environmental objectives selected with a 'yes' under Step 1. Part 2 of the checklist compiles, for each of the six objectives, the questions corresponding to the legal requirements of the DNSH assessment. For measures to be included in the plan, they have to comply with DNSH. Therefore the answers to the questions in Part 2 of the checklist has to be 'no', to indicate that no significant harm is being done to the specific environmental objective.

Part 2 of the checklist – Example for the environmental objective 'climate change mitigation'

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?		

Member States are asked to confirm that the answer is 'no', and to provide a substantive explanation and justification of their reasoning in the right-hand column, on the basis of the corresponding questions. Where necessary, as a complement to the table, Member States are also invited to provide further analysis and/or supporting documents, in a targeted and limited manner, to further substantiate their replies to the list of questions.

Where Member States cannot provide a sufficient substantive justification, the Commission may consider that a given measure is associated with possible significant harm to some of the six environmental objectives. If this is the case, the Commission would need to give a rating of 'C' to the RRP under the criterion spelled out in paragraph 2.4 of Annex II to the RRF Regulation. This would be without prejudice to the process outlined in Articles 16 and 17 of the RRF Regulation, and in particular the possibility for further exchanges between the Member State and the Commission outlined in Article 16(1).

For worked out examples in relation to this step, see Annex IV.

Where useful, when providing a substantive DNSH assessment in the context of Step 2, Member States can rely upon the list of supporting elements of evidence provided in Annex II. This list is provided by the Commission to facilitate the case-by-case assessment by the Member State as part of the substantive assessment in the context of Part 2 of the checklist. While using this list is optional, Member States can refer to this list to identify the type of evidence that can support their reasoning to establish that a measure is compliant with DNSH, complementing the general questions included under Part 2 of the checklist.

ANNEX I

DNSH checklist

1. **Part 1 – Member States should filter the six environmental objectives to identify those that require a substantive assessment. For each measure, please indicate which of the below environmental objectives, as defined in Article 17 (*'Significant harm to environmental objectives'*) of the Taxonomy Regulation, require a substantive DNSH assessment of the measure:**

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation			
Climate change adaptation			
The sustainable use and protection of water and marine resources			
The circular economy, including waste prevention and recycling			
Pollution prevention and control to air, water or land			
The protection and restoration of biodiversity and ecosystems			

2. **Part 2 – Member States should provide a substantive DNSH assessment for those environmental objectives that require it. For each measure, please answer the questions below, for those environmental objectives identified under Part 1 as requiring a substantive assessment:**

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?		
Climate change adaptation: Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?		
The sustainable use and protection of water and marine resources: Is the measure expected to be detrimental: (i) to the good status or the good ecological potential of bodies of water, including surface water and groundwater; or (ii) to the good environmental status of marine waters?		
The transition to a circular economy, including waste prevention and recycling: Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or		

(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource ([1]) at any stage of its life cycle which are not minimised by adequate measures ([2]); or (iii) cause significant and long-term harm to the environment in respect to the circular economy ([3])?		
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants ([4]) into air, water or land?		
The protection and restoration of biodiversity and ecosystems: Is the measure expected to be: (i) significantly detrimental to the good condition ([5]) and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?		

([1]) Natural resources comprise energy, materials, metals, water, biomass, air and land.

([2]) For instance, inefficiencies can be minimised by significantly increasing the durability, reparability, upgradability and reusability of products or by significantly reducing resources through the design and choice of materials, facilitating repurposing, disassembly and deconstruction, in particular to reduce the use of building materials and promote the reuse of building materials. Additionally, transitioning to 'product-as-a-service business models and circular value chains with the aim of keeping products, components and materials at their highest utility and value for as long as possible. This also comprises a significant reduction in the content of hazardous substance in materials and products, including by replacing them with safer alternatives. This further includes significantly reducing food waste in the production, processing, manufacturing or distribution of food.

([3]) Please refer to Recital 27 of the Taxonomy Regulation for more information on the circular economy objective.

([4]) Pollutant means a substance, vibration, heat, noise, light or other contaminant present in air, water or land which may be harmful to human health or the environment.

([5]) In line with Article 2(16) of the Taxonomy Regulation, "'good condition' means, in relation to an ecosystem, that the ecosystem is in good physical, chemical and biological condition or of a good physical, chemical and biological quality with self-reproduction or self-restoration capability, in which species composition, ecosystem structure and ecological functions are not impaired".

ANNEX II

Supporting evidence for the substantive DNSH assessment in the context of Part 2 of the checklist

Where useful, when providing a substantive DNSH assessment for a measure in the context of Part 2 of the checklist (see Section 3), Member States can rely upon the (non-exhaustive) list of supporting elements of evidence below. This list is provided by the Commission to facilitate the case-by-case assessment by the Member State as part of the substantive assessment in the context of Part 2 of the checklist. While using this list is optional, Member States can refer to this list to identify the type of evidence that can support their reasoning to establish that a measure is compliant with DNSH, complementing the general questions included under Part 2 of the checklist.

Cross-cutting supporting evidence

— The applicable part of the EU environmental legislation (in particular environmental assessments) has been complied with and relevant permits/authorisations have been granted.

— The measure includes elements requiring companies to implement a recognised environmental management system, such as EMAS (or alternatively ISO 14001 or equivalent), or to use and/or produce goods or services that are awarded an EU Ecolabel ([1]) or another Type I environmental label ([2]).

— The measure concerns the implementation of best environmental practices or the reaching of benchmarks of excellence set out in the Sectoral Reference Documents ([3]) adopted according to Article 46(1) of Regulation (EC) No 1221/2009 on the voluntary participation by organisations in a community eco-management and audit scheme (EMAS).

— For public investments, the measure respects green public procurement criteria ([4]).

— For infrastructure investments, the investment has been subject to a climate and environmental proofing.

Climate change mitigation

— For a measure in an area not covered by ETS benchmarks, the measure is compatible with achieving the GHG emissions reduction target by 2030 and with the objective of reaching climate neutrality by 2050.

— For a measure promoting electrification, the measure is complemented with evidence that the energy mix is on a path to decarbonise in line with the GHG emissions reduction targets by 2030 and 2050, and is accompanied by increased renewables generation capacity.

Climate change adaptation

— A proportionate climate risk assessment has been carried out.

— If an investment is above the value of EUR 10 million, a climate vulnerability and risk assessment ([5]) has been carried out or is planned leading to identification, appraisal and implementation of relevant adaptation measures.

([1]) The EU Ecolabel scheme is established by Regulation (EC) No 66/2010. The list of product groups for which EU Ecolabel criteria have been set is available at: https://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html

([2]) Type I environmental labels are set out in the ISO 14024:2018 standard.

([3]) Available at: https://ec.europa.eu/environment/emas/emas_publications/sectoral_reference_documents_en.htm

([4]) The European Commission has set out EU Green Public Procurement criteria for a large number of product groups: https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm

([5]) Member States are encouraged to use the Commission's guidance on the Sustainability proofing of investments under InvestEU, including the guidance on climate proofing of infrastructure 2021-2027. However, the Member States are allowed to apply their own criteria and markers for the sustainability proofing, provided they are based on the EU climate targets, and they substantially contribute to climate and environmental objectives in the meaning of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

The sustainable use and protection of water and marine resources

— Environmental degradation risks related to preserving water quality and avoiding water stress have been identified and addressed in accordance with the requirements under the Water Framework Directive and a River Basin Management Plan.

— In the case of a measure in relation to the coastal and marine environment, the measure does not permanently preclude or compromise the achievement of good environmental status as defined under the Marine Strategy Framework Directive at the level of the marine region or sub-region concerned or in the marine waters of other Member States.

— The measure does not significantly impact (i) affected water bodies (nor prevent the specific water body to which it relates nor other water bodies in the same river basin to achieve good status or good potential, in accordance with the requirements of the Water Framework Directive) or (ii) protected habitats and species directly dependent on water.

The circular economy, including waste prevention and recycling

— The measure is in line with the relevant national or regional waste management plan and waste prevention programme, in accordance with Article 28 of Directive 2008/98/EC as amended by Directive 2018/851/EU, and, where available, the relevant national, regional or local circular economy strategy.

— The measure is in line with the principles of sustainable products and the waste hierarchy, with a priority on waste prevention.

— The measure ensures resource efficiency for major resources used. Inefficiencies ([6]) in the use of resources are addressed, including ensuring that products, buildings and assets are efficiently used and durable.

— The measure ensures the effective and efficient separate collection of waste at source and that source-segregated fractions are sent for preparation for reuse or recycling.

Pollution prevention and control

— The measure is in line with existing global, national, regional or local plans for pollution reduction.

— The measure complies with the relevant Best Available Techniques (BAT) conclusions or with the Best Available Techniques Reference Documents (BREFs) ([7]) in the sector.

— Alternative solutions to the use of hazardous substances ([8]) will be implemented.

— The measure is in line with the sustainable use of pesticides ([9]).

— The measure is in line with best practices to combat antimicrobial resistance ([10]).

The protection and restoration of biodiversity and ecosystems

— The measure respects the mitigation hierarchy ([11]) and other relevant requirements under the Habitats and Birds Directives.

— An environmental impact assessment has been carried out and the conclusions have been implemented.

([6]) See Footnote 2 in Annex I of this guidance.

([7]) The type of supporting evidence is applicable to activities under the scope of Directive 2010/75/EU ('Industrial Emissions Directive'). The list of available BAT conclusions and BREFs can be accessed at: https://eippcb.jrc.ec.europa.eu/reference

([8]) This question addresses prevention and control of pollution arising from industrial activities. Article 3(18) of the Directive 2010/75/EU ('Industrial Emissions Directive', EID)' defines 'hazardous substances' as: "substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures". In addition, Article 58 of the EID states: "Substances or mixtures which, because of their content of volatile organic compounds classified as carcinogens, mutagens, or toxic to reproduction under Regulation (EC) No 1272/2008, are assigned or need to carry the hazard statements H340, H350, H350i, H360D or H360F, shall be replaced, as far as possible by less harmful substances or mixtures within the shortest possible time."

([9]) As laid down in the Sustainable Use Directive 2009/128/EC.

([10]) Council conclusions on the next steps towards making the EU a best practice region in combating antimicrobial resistance (2019/C 214/01).

([11]) In line with the Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC.

ANNEX III

Specific conditions for compliance with the climate change mitigation objective of DNSH under the RRF for measures related to power and/or heat generation, as well as related transmission and distribution infrastructure, using natural gas

— Support for measures related to natural gas-based power and/or heat generation can exceptionally be given on a case-by-case basis in Member States that face significant challenges in the transition away from carbon-intensive energy sources, provided that this support would contribute to the EU's decarbonisation objectives for 2030 and 2050, if:

  — Measures relate to future-proof, flexible and efficient gas-fired power production or gas-fired Combined Heat and Power, with GHG emissions lower than 250 gCO_2e/kWh over the economic life-time of the facility;

    or

  — Measures relate to future-proof, flexible and efficient gas-fired power production or gas-fired Combined Heat and Power, enabled for the use of renewable and low-carbon gases and:

    — the RRP includes credible plans or commitments to increase usage of renewable and low-carbon gases; and

    — result in the simultaneous closure of a significantly more carbon-intensive power plant and/or heat generation facility (e.g. coal, lignite or oil) with at least the same capacity, leading to a significant decrease in GHG emissions; and

    — the Member State concerned can demonstrate that they have a credible trajectory for increasing the share of renewables towards their 2030 renewables target; and

    — the RRP includes concrete reforms and investments to increase the share of renewables.

— Support for measures related to natural gas-based generation facilities in district heating and cooling systems can exceptionally be given, if the facility meets the requirements of 'efficient district heating and cooling' systems (as defined in Article 2(41) of the Directive 2012/27/EU) and meets the conditions for natural gas-based heat/power generation as described in the first bullet of this Annex.

— Support for measures related to district heating and cooling networks that obtain heat/cool from facilities using natural gas can exceptionally be given, if:

  — they are a part of 'efficient district heating and cooling' systems (as defined in Article 2(41) of the Directive 2012/27/EU), obtaining heat/cool from existing facilities that meet the conditions for natural gas-based heat/power generation as described in the first bullet;

    or

  — investments in the heat/power generation facility start within three years of the modernisation of the network, aim at making the whole system efficient (as defined in Article 2(41) of the Directive 2012/27/EU) and meet the conditions for natural gas-based heat/power generation as described in the first bullet.

— Support for measures related to transmission and distribution infrastructure of gaseous fuels is possible, if they enable at the time of construction the transport (and/or storage) of renewable and low-carbon gases.

— Support for measures related to natural gas-based boilers and heating systems (and related distribution infrastructure) can exceptionally be given, on a case-by-case basis, if:

  — they are either in line with Article 7(2) of the Energy Labelling Framework Regulation (EU) 2017/1369 ([1]) or are being installed in buildings that are part of a wider energy efficiency or building renovation programme, in line with long-term renovation strategies under the Energy Performance of Buildings Directive, leading to a substantial improvement in energy performance, and

([1]) Article 7(2) of the any Energy Labelling Framework Regulation (EU) 2017/1369 stipulates that incentives provided by Member States must aim at the highest two significantly populated classes of energy efficiency, or at higher classes as laid down in a delegated act. For space and water heaters, fossil-fuelled products are generally not in these classes with the possible exception of gas fired micro-cogeneration products.

— lead to a significant decrease in GHG emissions; and

— lead to a significant improvement of the environment (notably due to pollution reduction) and public health, in particular in areas where the EU air quality standards set by Directive 2008/50/EU are exceeded or risk being exceeded, such as when replacing coal- or oil-based heating systems and boilers.

ANNEX IV

Worked out examples of how to implement the DNSH assessment

This section provides worked out examples of hypothetical measures and the general elements that could form part of the DNSH assessment, using the two steps of the checklist described in Section 3. These examples are provided without prejudice to the level of detail or content required in the description of the measure and the actual DNSH assessment to be performed in the RRPs. The DNSH assessment that will be ultimately required depends on the nature and features of each measure, and cannot be exhaustively covered for the purposes of this document.

Example 1: Energy efficiency measures in existing buildings, including replacement of heating and cooling systems

Description of the measure

Investments in a broad energy efficiency building renovation programme, leading to a substantial improvement in energy performance, aimed at renovation of existing residential housing stock through a variety of energy efficiency measures, including insulation, efficient windows, replacement of heating and cooling systems, green roofs, and installing renewable energy generation equipment (e.g. solar PV panels).

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation	X		
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. No environmental degradation risks related to preserving water quality and water stress are identified, as no water fittings or water-using appliances are being installed.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The building renovation programme does not concern buildings 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).

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?	X	The measure is eligible for intervention field 025 in the Annex to the RRF Regulation with a climate change coefficient of 40 %.

		The measure is not expected to lead to significant GHG emissions because: — The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels. — The renovation programme has the potential to reduce energy use, increase energy efficiency, leading to a substantial improvement in energy performance of the buildings concerned, and significantly reduce GHG emissions (see specifications of the measure on page X of the RRP and specifications in the next point below). As such, it will contribute to the national target of energy efficiency increase per year, set out according to the Energy Efficiency Directive (2012/27/EU) and the Nationally Determined Contributions to the Paris Climate Agreement. — This measure will lead to a significant reduction in GHG emissions, i.e. an estimated XX kt of GHG emissions per year, which corresponds to X % of national GHG emissions from the residential sector (see analysis in page X in the RRP). — The renovation programme will, amongst others, include the replacement of coal/oil-based heating systems with gas condensing boilers: — These boilers correspond to class A, which is below the highest two significantly populated classes of energy efficiency in this Member State. Lower-carbon and more efficient alternatives (notably, heat pumps of A++ and A+ classes) were considered but due to the architecture of the buildings covered by the programme, common heat pumps cannot be installed, and gas condensing boilers of class A are the best-performing technologically feasible alternative. — Moreover, the investments in gas condensing boilers are a part of a wider energy efficiency building renovation programme, in line with long-term renovation strategies under the Energy Performance of Buildings Directive, and leading to a substantial improvement in energy performance. — Alongside the installation of these boilers, the measure also includes the installation of solar PV panels as part of these building renovations. — In order to not hamper the deployment of low-carbon alternatives, in particular heat pumps, across the Member State, reform X of this component (see page Y of the RRP) will lead to a review of relative fuel pricing.
Climate change adaptation. Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The physical climate risks that could be material to this measure were assessed as part of an exposure analysis, covering current and future climate, which demonstrated that buildings in the targeted climate zone will be exposed to heatwaves. The measure requires the economic operators to ensure that the technical building systems in the renovated buildings are optimised to provide thermal comfort to the occupants even in those extreme temperatures. There is thus no evidence of significant negative direct and primary indirect effects of the measure across its life-cycle on this environmental objective.
Transition to a circular economy, including waste prevention and recycling: Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or	X	The measure requires the economic operators carrying out the building renovation to ensure that 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 will be 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.

(ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?		The measure includes technical specifications for the renewable energy generation equipment that can be installed about their durability, reparability and recyclability as specified on page X of the RRP. In particular, operators will limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol. Building designs and construction techniques will 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 dismantleable to enable reuse and recycling.
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: — The replacement of oil-based heating systems in particular will lead to significant reductions of emissions to air and a subsequent improvement in public health, in an area where the EU air quality standards set by Directive 2008/50/EU are exceeded or likely to be exceeded. — As described in the justification for the climate change mitigation objective, lower-impact alternatives were considered but are not technologically feasible in the context of this programme. Moreover, the expected average lifetime of the boilers to be installed is 12 years. — The operators carrying out the renovation are required to ensure that 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. — The operators carrying out the renovation are required to ensure that building components and materials used in the building renovation that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m^3 of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m^3 of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination method. — Measures will be taken to reduce noise, dust and pollutant emissions during renovation works, as described on page X of the RRP.

Example 2: Waste management (construction and demolition waste processing)

Description of the measure

This measure is an investment to support the construction of recycling facilities for construction and demolition waste. More specifically, the facilities sort and process separately collected, non-hazardous and solid waste streams, including from the building renovation component of the RRP. The facilities recycle non-hazardous and solid waste into secondary raw materials by involving a mechanical transformation process. The objective of the measure is to convert more than 50 %, in terms of weight, of the processed separately collected, non-hazardous and solid waste into secondary raw materials that are suitable for the substitution of primary construction materials.

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation		X	The measure is eligible for the intervention field 045bis in the Annex to the RRF Regulation with a climate change coefficient of 100 % since the technical specifications of the support to recycling facilities is conditional on achieving the 50 % conversion rate. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. No environmental degradation risks related to preserving water quality and water stress are identified. In accordance with Directive 2011/92/EU, the screening stage of the Environmental Impact Assessment (EIA) process concluded that no significant effects are expected. Where construction and demolition waste will be stored waiting to be processed will have to be covered, and water infiltration on site will be managed, to avoid that pollutants from the treated waste can be washed off into the local aquifer in case of rain.
The circular economy, including waste prevention and recycling		X	The measure is eligible for the intervention field 045bis in the Annex to the RRF Regulation with an environmental coefficient of 100 % since the technical specifications of the support to recycling facilities is conditional on achieving the 50 % conversion rate. The objective of the measure and the nature of the intervention field directly supports the circular economy objective. The measure is consistent with the [national/regional/local] waste management plan.
Pollution prevention and control to air, water or land		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. In accordance with Directives 2011/92/EU, the screening stage of the Environmental Impact Assessment (EIA) process was concluded that no significant effects are expected, based on measures taken to reduce noise, dust and pollutant emissions during construction of the recycling facility and its operation (sorting and treatment of waste). The facilities supported by the measure apply

			the best available techniques described in the Reference Document on Best Available Techniques (BREF) for waste treatment industries. Measures taken to reduce noise, dust and pollutant emissions during construction works are described on page X of the RRP.
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The operation is not 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). In accordance with Directives 2011/92/EU and 92/43/EEC, the screening stage of the Environmental Impact Assessment (EIA) process was concluded that no significant effects are expected.

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change adaptation: Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	Since the measure relates to two facilities being constructed in proximity to flood-prone areas and the expected life-span of the facilities exceed 10 years, a robust climate risk and vulnerability assessment has been performed, using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the facilities. The conclusions of the assessment have been incorporated in the design of the measure (see page X in the RRP). Additionally, the measure specifies the obligation for the economic operators to develop a plan to implement adaptation solutions to reduce material physical climate risks to the recycling facilities (see page X in the RRP). The obligation includes that adaptation solutions 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 and are consistent with local, sectoral, regional or national adaptation efforts.

Example 3: Waste incinerator (example of non-compliance with DNSH)

Description of the measure

This measure is an investment to support the construction of new waste incinerators to increase the existing capacity in the country. The aim of the measure is to reduce the landfilling of non-hazardous municipal solid waste and generate energy through waste incineration (waste-to-energy).

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation	X		

Climate change adaptation	X		
The sustainable use and protection of water and marine resources		X	In this particular case, the activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. There is evidence that the measure will not result in environmental degradation risks related to preserving water quality and water stress in accordance with the Water Framework Directive (2000/60/EC). In accordance with Directives 2011/92/EU, the screening stage of the Environmental Impact Assessment (EIA) process was concluded that no significant effects are expected.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems	X		

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?	X	The facilities supported by the measure aim to minimise CO_2 emissions of fossil origin. This is ensured by incinerating only biomass (and not fossil) material. This is substantiated (see page X in the RRP) and incorporated in the relevant targets linked to Component Y. A monitoring plan is in place for leakage of GHG emissions at each facility, in particular from stored waste to be processed, as reflected in the design of the measure on page X in the RRP.
Climate change adaptation: Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	Since the three waste incinerators to be supported by the measure are located in landslide prone areas and with an expected life-span of the facilities of 25-30 years, a robust climate risk and vulnerability assessment has been performed, using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the facilities. The conclusions of the assessment have been incorporated in the design of the measure (see page X in the RRP). Additionally, the measure specifies the obligation for the economic operators to develop a plan to implement adaptation solutions to reduce material physical climate risks to the waste incinerators (see page X in the RRP). The obligation further includes that adaptation solutions 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 and are consistent with local, sectoral, regional or national adaptation efforts.

Transition to a circular economy, including waste prevention and recycling: Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	*Example of non-compliance with DNSH*	While this measure aims to divert, among others, combustible non-recyclable waste from landfills, the Commission would likely consider this measure to develop or "lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste" for the following reasons. The construction of new waste incinerators to increase the existing incineration capacity in the country leads to a significant increase in the incineration of waste, which does not fall under the category of non-recyclable hazardous waste. Therefore, it is in direct breach of Article 17(1)d(ii) ('Significant harm to environmental objectives') of the Taxonomy Regulation. The measure hampers the development and deployment of available low-impact alternatives with higher levels of environmental performance (e.g. reuse, recycling), and could lead to a lock-in of high-impact assets, considering their lifetime and capacity. Significant amounts of non-hazardous waste (recyclable and non-recyclable, indistinctively) might be used as feedstock, thus hampering, as regards recyclable waste, treatment ranking higher in the waste hierarchy, including recycling. This would undermine the achievement of recycling targets at national/regional level and the national/regional/local Waste Management Plan adopted in accordance with the amended Waste Framework Directive.
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	The measure requires the facilities supported to apply the best available techniques laid out in the BAT Conclusions for Waste Incineration (Commission Implementing Decision (EU) 2019/2010). This is ensured by the design of the measure (see page X in the RRP). The facilities supported by the measure have secured the relevant environmental permit and include mitigation and monitoring of environmental impacts, based on measures taken to reduce and control the level of noise, dust and other pollutant emissions during construction, maintenance works and operation (see page X in the RRP).
Protection and restoration of biodiversity and ecosystems: Is the measure expected to be: (i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?	X	An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU, and the required mitigation measures for protecting the environment have been/will be implemented and reflected in the milestones and targets of measure X in Component Y (see page X in the RRP). The incinerators will not be 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).

Example 4: Transport infrastructure (roads)

Description of the measure

This measure would consist of investments across two sub-measures:

— Construction of a new highway, part of the Core TEN-T Network, aimed at (i) better connecting a remote region of a Member State with the rest of the country and (ii) improving road safety.

— Construction of electric charging (one charging point per ten vehicles) and hydrogen refuelling points (one refuelling point every X km) along the new highway.

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure		Yes	No	Justification if 'No' has been selected
Climate change mitigation	Construction of the new highway	X		
	Construction of charging and refuelling infrastructure		X	This sub-measure is eligible for intervention field 077 in the Annex to the RRF Regulation with a climate change coefficient of 100 %. In addition, electric charging and hydrogen refuelling infrastructure (which will be based on green hydrogen produced by electrolysers) promotes electrification and as such can be considered a necessary investment to enable the shift to an effective climate-neutral economy. Justification and evidence of upscaling of renewables generation capacity at the national level is provided in component X, pages Y-Z of the RRP.
Climate change adaptation		X		
The sustainable use and protection of water and marine resources		X		
The circular economy, including waste prevention and recycling		X		
Pollution prevention and control to air, water or land		X		
The protection and restoration of biodiversity and ecosystems		X		

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?	X	*(Only regarding the sub-measure on the construction of a new highway:)*

		The measure is not expected to lead to significant GHG emissions, as the new highway forms part of the comprehensive transport plan ([1]) aimed at decarbonising transport in line with 2030 and 2050 climate targets. In particular, this is due to the following accompanying measures: — the coupling of the road investment with electric charging and hydrogen refuelling infrastructure; — reform X (pages Y-Z) of this component, which introduces tolling for this road and others; — reform Y (pages Y-Z) of this component, which increases taxation for conventional fuels; — reform Z (pages Y-Z) of this component, which provides incentives for the purchasing of zero emission vehicles; — and measures XX and XY (pages Y-Z) of this component, which support the modal shift towards rail and/or inland waterways.
Climate change adaptation: Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	Since the measure relates to the construction of a road and related charging and refuelling infrastructure in an area prone to heat stress and temperature variability and the expected life-span of the assets exceeds 10 years, a climate risk and vulnerability assessment has been performed, using climate projections across a range of future scenarios consistent with the expected lifetime of the facilities. In particular, a flood risk analysis was carried out and two segments where specific adaptation solution need to be implemented have been identified. Special attention has been paid to sensitive elements like bridges and tunnels. The conclusions of the assessment have been incorporated in the design of the measure (see page X in the RRP). Additionally, the measure specifies the obligation for the economic operators to develop a plan to implement adaptation solutions to reduce material physical climate risks to the road and related charging and refuelling infrastructure (see page X in the RRP). The obligation includes that adaptation solutions 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 and are consistent with local, sectoral, regional or national adaptation efforts.
Sustainable use and protection of water and marine resources: Is the measure expected to be detrimental: (i) to the good status or the good ecological potential of bodies of water, including surface water and groundwater; or (ii) to the good environmental status of marine waters?	X	An Environmental Impact Assessment (EIA) was carried out for the construction of the road and installation of the related charging and refuelling infrastructure, in accordance with Directive 2011/92/EU. The required mitigation steps for protecting the environment will be implemented, which has been reflected in the design of the measure (see page X in the RRP). The EIA included an assessment of the impact on water in accordance with Directive 2000/60/EC and the risks identified have been addressed in the design of the measure (see page X in the RRP). Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in accordance with the requirements under Directive 2000/60/EC (Water Framework Directive) and with a River Basin Management Plan developed for the potentially affected water body or bodies in consultation with relevant stakeholders (see page X in the RRP).

Transition to a circular economy, including waste prevention and recycling: Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	The measure requires the operators carrying out the road construction to ensure that at least 70 % (by weight) of the non-hazardous construction and demolition waste from the construction of the road and related charging and refuelling infrastructure (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 will be 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. The operators will limit waste generation during construction, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction waste.
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	The measure is not expected to lead to a significant increase in the emissions of pollutants into air, as it forms part of the comprehensive transport plan and is in line with the National Air Pollution Control Programme. In particular, this is due to the following accompanying measures: — the coupling of the road investment with electric charging and hydrogen refuelling infrastructure; — reform X (pages Y-Z) of this component, which introduces tolling for this road and others; — reform Y (pages Y-Z) of this component, which increases taxation for conventional fuels; — reform Z (pages Y-Z) of this component, which provides incentives for the purchasing of zero emission vehicles; — and measures XX and XY (pages Y-Z) of this component, which support the modal shift towards rail and/or inland waterways. In addition, noise and vibrations from use of the road and related charging and refuelling infrastructure will be mitigated by introducing wall barriers that comply with Directive 2002/49/EC.
Protection and restoration of biodiversity and ecosystems: Is the measure expected to be: (i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?	X	An Environmental Impact Assessment was carried out for the construction of the road and related charging and refuelling infrastructure, in accordance with Directive 2011/92/EU and Directive 92/43/EEC. The required mitigation steps for reducing land fragmentation and degradation, in particular green corridors and other habitat connectivity measures, as well as the relevant protected animals species listed in Annex IV of Directive 92/43/EEC, have been based on established conservation objectives and have been implemented, which has been reflected in the design of the measure (see page X in the RRP).

([1]) Or, in the absence of a comprehensive sustainable transport plan, a specific cost-benefit analysis performed at project-level shows that the project itself leads to a decrease / does not lead to an increase of GHG emissions throughout its life cycle.

Example 5: Car scrappage scheme (example of non-compliance with DNSH)

Description of the measure

This measure is a scrappage scheme for the replacement of currently used internal combustion-engine cars by more efficient ones also relying on internal combustion (i.e. diesel or petrol combustion). The incentive takes the form of a unitary grant per scrapped and acquired car but can also take a more sophisticated form (tax deduction).

The measure seeks to replace older, more polluting vehicles with more recent and therefore less polluting equivalents. For the purpose of this example, it is assumed that this scheme only requires the shift to a new generation of product (e.g. a successive level of the Euro standards) within the same technology.

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation	X		
Climate change adaptation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle.
The sustainable use and protection of water and marine resources		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle.
The circular economy, including waste prevention and recycling	X		
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle.

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change mitigation: Is the measure expected to lead to significant GHG emissions?	*Example of non-compliance with DNSH*	Combustion cars produce CO_2 (and particulate emissions, NO, volatile organic compounds and various other hazardous air pollutants including benzene). As regards climate change mitigation, the acquisition of new cars (to replace old ones) would diminish emission but still lead to significant greenhouse gas emissions (The average CO_2 emissions, measured in laboratory tests, of new passenger cars registered in the EU and Iceland in 2018 were 120,8 grams of CO_2 per kilometre). The Commission is likely to reject the argument that new generation diesel or petrol cars represent the best available alternative in the sector and that therefore the investment does not breach DNSH. Electric cars represent a better available alternative with a higher environmental

		performance (i.e., lower levels of lifecycle emissions) in the sector in terms of climate change mitigation. Therefore, the Commission would be likely to consider that the scrappage scheme would lead to a significant harm to climate mitigation.
Circular economy and waste management: Is the measure expected to: (i) lead to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste; or (ii) lead to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle which are not minimised by adequate measures; or (iii) cause significant and long-term harm to the environment in respect to the circular economy?	X	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. Production impacts are factored in, and the scheme will not encourage the premature scrapping of serviceable vehicles. In particular, the scheme requires that any scrapped car is processed by an Authorised Treatment Facility (ATF) according to the end-of-life vehicles directive (2000/53/EC) as proven by a certificate required to take part in the scheme. Additionally, the measure is accompanied by an activity that promotes the harvest of parts by the ATFs for their ultimate re-use and remanufacturing.
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants ([1]) into air, water or land?	*Example of non-compliance with DNSH*	Combustion-engine cars emit among others carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NOx) and unburnt hydrocarbons (HC). Given the average practices and regulatory requirements in the industry ([2]), the Commission would be unlikely to consider that the measure does not lead to a significant increase in the emissions of pollutants into air, for similar considerations as those set out for climate change mitigation.

Example 6: Land irrigation

Description of the measure

The measure envisages primarily investments in an existing and in-use irrigation system in region X to use more efficient irrigation methods and promote safe re-use of reclaimed water. The aim is to compensate water scarcity of soil caused by droughts and as such to contribute to climate change adaptation, in particular as regards agricultural crops. The measure will be accompanied by the promotion and support for sustainable agricultural practices, in particular more sustainable and efficient irrigation systems and natural water retention measures, switching to crops and management practices with lower water requirements, as well as more sustainable fertilisation practices.

([1]) Pollutant means a substance, vibration, heat, noise, light or other contaminant present in air, water or land which may be harmful to human health or the environment.

([2]) The composition varies from petrol to diesel engines. Euro 5 and 6 Regulation (EC) No 715/2007 sets the emission limits for cars for regulated pollutants, in particular nitrogen oxides (NOx, i.e. the combined emissions of NO and NO_2) of 80 mg/km.

Part 1 of the DNSH checklist

Please indicate which of the environmental objectives below require a substantive DNSH assessment of the measure	Yes	No	Justification if 'No' has been selected
Climate change mitigation		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. This is ensured because the new system/equipment will be energy-efficient and hence the absolute emissions will not increase despite a modest increase in the irrigated area, and/or because the electricity to power the equipment will be wind or solar derived. Irrigation can indirectly facilitate the continuation of agricultural practices that compromise the carbon sink function of agricultural soils or even turn them into net emitters. The meaningful promotion and support for sustainable agricultural practices as part of the measure indicates no further deterioration on that account, and ought to lead to an improvement.
Climate change adaptation	X		
The sustainable use and protection of water and marine resources	X		
The circular economy, including waste prevention and recycling		X	The activity that is supported by the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The measure will not lead to significant inefficiencies in the use of resources nor to increase the generation of waste.
Pollution prevention and control to air, water or land	X		
The protection and restoration of biodiversity and ecosystems	X		

Part 2 of the DNSH checklist

Questions	No	Substantive justification
Climate change adaptation: Is the measure expected to lead to an increased adverse impact of the current climate and the expected future climate, on the measure itself or on people, nature or assets?	X	The measure is not expected to be detrimental to climate change adaptation for the following reasons: — The main part of the measure contributes to a limited extent to improving resilience to climate change impacts in the short term, since it enhances irrigation without increasing water abstraction. This positive contribution is possible only in so far as the current and projected state of the water bodies affected are in a good state (or are reasonably not expected to deteriorate to a less than good state according to reliable projections). If this were not to be the case, the rate of abstraction would therefore be unsustainable, and the investment would not qualify as a

		climate adaptation measure (and would be a borderline mal-adaptation measure) even if it doesn't make the underlying situation worse, as it would prolong the lifetime of a fundamentally unsustainable structure. The measure is in principle eligible for the intervention field 040 in the Annex to the RRF Regulation with a climate change coefficient of 40 % since the measure is a water management measure that is aimed at managing water scarcity which is exacerbated by climate-related risks, i.e. droughts. — The promotion of sustainable agricultural practices and natural water retention measures, would, by contrast, fit into intervention field 037, directly supporting the climate change adaptation objective. For the whole measure to qualify under 037, the latter would need to be predominant, or at least sufficiently convincing in size, scale and detail.
The sustainable use and protection of water and marine resources: Is the measure expected to be detrimental: (i) to the good status or the good ecological potential of bodies of water, including surface water and groundwater; or (ii) to the good environmental status of marine waters?	X	The measure is not expected to be detrimental to the sustainable use and protection of water and marine resources. The measure is aimed at improving the sustainable use of water resources, in particular through: — supporting the switch by the farmers to crops and management practices with lower water requirements; supporting farmers to implement measures that increase the soil water retention capability and water storage at farm level; — implementing irrigation system that allows the re-use of water in line with the Water Framework Directive and does not lead to an increment of water abstraction. The measure will contain investments in infrastructures to enable the safe re-use of reclaimed water for agricultural purposes. Through this investment, it will become possible to use treated urban waste water for the irrigation of nearby crop fields and prepare for the application of the new Regulation on minimum requirements for water reuse (EU/2020/741); — investing in more sustainable and efficient irrigation systems that require less water, such as localised irrigation. This at the same time will lead to less nutrient leaking to the ground waters as well as nearby inland water bodies; — where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority, specifying conditions to avoid deterioration and ensure that affected water bodies achieve good quantitative status (in case of groundwater) or good ecological status or potential (in case of surface water) at the latest by 2027, in accordance with the requirements of the Water Framework Directive 2000/60/EC; — an environmental impact assessment in line with the EIA Directive has been conducted and all the necessary mitigating steps have been identified and reflected in the design of the measure (see page X in the RRP).
Pollution prevention and control: Is the measure expected to lead to a significant increase in the emissions of pollutants into air, water or land?	X	The measure is not expected to lead to a significant increase in the emissions of pollutants into air, water or land because: — of the use of ultra-efficient energy consuming equipment, or that powered from renewable energy sources; — with the installation of more efficient irrigation systems (explained above), the nutrient runoff from agriculture will be reduced; — with the support to farmers to switch to crops and management practices with lower water requirements and the increment of water availability at farm level, less water will be used for irrigation;

		— sustainable agricultural practices will be supported which will in turn require less pesticides leading to less water and land pollution.
The protection and restoration of biodiversity and ecosystems: Is the measure expected to be: (i) significantly detrimental to the good condition and resilience of ecosystems; or (ii) detrimental to the conservation status of habitats and species, including those of Union interest?	X	The measure will not have detrimental effects on biodiversity and ecosystems because: — the irrigation projects covered by this measure are not located in protected sites, or will not have negative effects on such sites in light of their conservation objectives. Any disturbance of species or negative impact on habitats outside those sites, both during the construction and operation phases, will be avoided through the necessary prevention and mitigation steps, which are reflected in the design of the measure (see page X in the RRP); — an environmental impact assessment in line with the EIA Directive has been conducted and all the necessary mitigating steps have been identified and reflected in the design of the measure (see page X in the RRP); — it complies with the requirements of the Habitats and Birds Directive; it was subject to an Article 6(3) assessment under the Habitats Directive (integrated in this particular case within the environmental impact assessment procedure) which excluded significant effects on Natura 2000 sites; — by supporting sustainable agricultural practices, it will in turn require less pesticides hence mitigating the negative impact on biodiversity (insects, birds, life in the soil) and may include more crop diversity, also supporting biodiversity.