Interreg North-West Europe

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ReNu2Cycle

Feedback of NWE Interreg project ReNU2Cycle on the Draft amendment of Annex II of the Nitrates Directive

We welcome the opportunity to give feedback on the draft amendment of the Annex II of the Nitrates Directive. The NWE Interreg project ReNu2Cycle aims to encourage the uptake of recycling-derived fertiliser products in the European market. The project has a strong policy evaluation and advocacy component.

We support this amendment of the Nitrates Directive to extend the ReNure materials with certain fractions of digestate. In the JRC report (2022) on RENURE criteria it was already concluded that ammonium scrubbing salts, mineral concentrates and most of the liquid fraction of digestates consistently meet the proposed criteria set for RENURE criteria. The new JRC report (2026) confirms these conclusions. The inclusion of liquid fraction of digestates as a RENURE material is therefore fully justified from the viewpoint of the protection of water from the pollution with nitrates caused from agricultural sources.

We are however concerned that some of the additional criteria and provisions-for RENURE| materials will limit the implementation of RENURE materials in the field. Our feedback and recommendations are brought forward to improve the proposed text for the amendment and to contribute to the overall goal of the Nitrate Directive, which is undisputed.

Limitation to just one separation method is unjustified

The extension of the RENURE is for "a liquid digestate obtained from anaerobic digestion followed by separation using a decanter centrifuge..". This restriction to a specific type of separation does not follow from the conclusions from the JRC reports on RENURE materials (2022, 2026). Other types of separation can also yield liquid fractions meeting the RENURE quality criteria and should not be excluded a priory.

Legislation should be technology neutral. Favouring certain processes and specific technologies above others will limit the implementation of RENURE and block innovations and restrict scientific and technical progress in manure processing techniques.

The decanter centrifuge technique requires a high capital expenditure (€150,000–€300,000+) and is energy intensive. It will price out farm-scale and cooperative anaerobic digestion facilities, especially where these have already invested in other techniques.

We advocate for a technology-neutral, performance-based standard that permits other technologies like screw presses paired with polymers or micro-filtration and does not block new innovations. The quality of the RENURE materials is already guaranteed by the introduction of standards for consistent quality at the National level.

The RENURE material description is not clear and terms are not legally defined

"a liquid digestate obtained from anaerobic digestion followed by separation using a decanter centrifuge that is based on agricultural or agro-food industry feedstocks or biowaste collected separately at source in accordance with Article 22 of Directive 2008/98/EC of the European Parliament and of the Council"

This sentence is not clear in its intension and should be rewritten.

It is not clear what is meant with *"agricultural or agrifood industry feedstocks".* These terms are not defined in the Nitrate Directive or in other EU law. The Member states may interpretate this term differently, giving rise to legal disputes and legal uncertainty for producers, which hinders the investments in anaerobic digestion plans.

Also, Member states have already implemented national regulations on the use of co-materials in anaerobic digestion plants. The national regulations on co-materials cover the possible impact on the environment and health risks of contaminants. It is not clear why the Nitrate Directive amendment would introduce a provision on co-materials and does not align with the existing national regulations, especially as it is to be expected that the liquid fraction of digestate will be used in the region of production.

We notice that the feedback from EBA (European Biomass Association) has also addressed this point.

Supporting the EBA recommendation, we propose the following wording:

"A liquid digestate obtained through the anaerobic digestion of manure, potentially co-digested with other feedstocks permitted under national legislation, followed by separation".

Spatial Protection: Source Protection Zones vs Broad "Catchment Areas"

The draft proposal introduces spatial restrictions to prevent adverse effects "in the *catchment* area of drinking water abstraction points." In some countries like Ireland, rural hydrology is characterised by tens of thousands of private domestic wells, farm wells, and small group water schemes (serving 4–10 dwellings), alongside public river extractions. Interpreting "catchment area" broadly rather than locally risks triggering unintended, blanket spreading bans across vast swathes of productive farmland in the South and East.

We recommend that spatial safeguards align directly with existing Water Framework Directive (WFD) mechanisms. Restrictions must be explicitly linked to defined, risk-assessed Drinking Water Source Protection Zones (SPZs), local Zones of Contribution (ZOCs), and targeted riparian buffer strips, rather than indeterminate hydrological catchment boundaries. Spatial rules for RENURE materials should be proportionate and aligned with standard synthetic fertiliser controls.

Limitation of RENURE implementation to only four materials is not justified

We disagree with the restrictive RENURE implementation of just four specific materials. These materials have been selected based on the criterion that they would '*reliably yield materials of a consistent quality in accordance with specified criteria*'. The criterion is used to disqualify other RENURE materials derived from other treatments.

This goes against the widely supported view that materials should be evaluated based on composition criteria and not based on the (recovery) process. The RENURE criteria proposed by the JRC (2022) have been drafted to qualify materials by composition. The materials composition determines the risk of the water pollution by nitrates. The reliability of RENURE material composition is safeguarded at the national level by the implementation of a quality control system and quality standards.

Legislation should be technology neutral. Favouring certain processes and specific technologies above others will limit the implementation and block innovations.

We recommend that all materials from manure treatment that meet the technology neutral RENURE criteria as formulated by the JRC report (2022) should be included. The quality of the RENURE materials is already guaranteed by the introduction of standards for consistent quality at the National level.

The pathogen criterion for RENURE materials in the Nitrates Directive is redundant

The Nitrate Directive sets limits for pathogens for RENURE materials. These pathogen limits are comparable to the limits set in the Animal by-product regulation for manures that are processed to limit the biological risks (processing= hygienisation according to Annex XI of EU 142/2011).

The Animal by-product regulations lays down rules for the handling and use of manure to prevent and minimise risks to the public and animal health. This includes the use of manure and manure-derived products as an organic fertiliser or soil improver. The RENURE products are manure-derived products. As such, the health risks from pathogens in RENURE materials are already regulated and controlled by the requirements of the Animal by-product regulation.

Pathogens in RENURE materials do not pose a risk for the contamination of water with nitrates. As such, setting pathogen limits for fertilising materials is out of the scope of the Nitrates Directive.

This has also been very clearly stated in the JRC report (2022) on RENURE; "*The proposals are mainly based on the principles that the regulation of (animal) health related aspects as well as the envisaged end-use and legal status of the RENURE material fall beyond the mandate of this project, and by extension the ND*" .

A consequence of the pathogen criterion could be that the liquid fraction of digestate would have to be processed (hygienised) which is an energy consuming treatment. In most Member states, especially in the livestock intensive regions where the RENURE materials are produced, raw manure can be applied without hygienisation. The RENURE materials, especially the voluminous mineral concentrates and the liquid fractions of digestate, will used in the region of production. This creates the situation that the raw material with pathogens can be used without the criterion on pathogens, whereas the derivate of the manure treatment can only be used after hygienisation.

No rationale is given for this discrepancy between these two materials, which are both under the scope of the Animal by-product regulation.

We recommend that the pathogen criterion is removed from the proposal text. The risks from pathogens are already covered by the Animal by-product regulation and moreover are not in the scope of the Nitrate Directive.

Additional criteria should be based on composition, not on origin

The RENURE provisions address additional measures that should be taken to avoid losses to air during storage and usage of RENURE materials. The composition of RENURE materials is comparable to certain synthetically derived fertilisers with comparable risks of losses to air. We do not see a justification to take measures for RENURE materials specifically. We argue that measures to avoid losses to air should be based on composition of fertiliser materials, not on origin. So, if additional measures are needed to avoid losses to air during storage, these should also equally to either synthetic and RENURE products. These measures are part of the Good Agricultural Practices.

We recommend that the proposed measures for the storage and usage to avoid losses to air should be based on the composition of the materials, not on the RENURE origin. Measures should apply equally to comparable synthetically derived fertiliser materials.

The application limit of 80 kg N as RENURE is not justified.

The application rate for RENURE materials is set at 80 kg N as RENURE per hectare. No justification is given for this. The draft text mentions the following consideration:

"(8) In addition to the impact on water quality, nitrogen emissions from manure and livestock affect air quality. The use of RENURE fertilisers should go hand in hand with continuous efforts to mitigate the overall environmental impacts. It is therefore necessary to have appropriate safeguards and to set an upper limit for the use of RENURE fertilisers."

We disagree with the notion that limiting the application of RENURE would mitigate the overall environmental impacts of manure and livestock. The JRC research (2022) has made a thorough

investigation of the possible risks associated with the application of RENURE, and the measures that could be taken to counteract these risks. In their recommendations, limiting the amount of RENURE was not brought forward and not seen as necessary.

Where the composition of fertiliser materials poses a risk to air quality, appropriate measures should be taken. In our view these should not be specific for RENURE but apply to all fertilisers of a comparable composition. Making a distinction based on the origin of materials instead of on composition increases the complexity of the regulations and adds to administrative and logistic burden on farmers. This is undesirable as it will negatively affect the substitution of synthetic derived fertilisers by recycling derived fertilisers.

We recommend that the application rate or 80 kg N as RENURE per hectare materials is removed.

Tightening fertiliser rates to account for losses to air and water is unjustified,

Sanctioning the use of RENURE materials by tightening the overall fertiliser rates is unjustified. We object to the proposed obligation to tighten the overall fertiliser rates where RENURE materials are used. Maximum fertiliser application rates are an effective measure for efficient nutrient use and limitation of nitrate losses. As such, the existing application rates already taken into account in the Action programmes under the codes of good agricultural practices. In the Netherlands, the fertiliser application rates for nitrogen are -for some regions and crops- already below the optimum rates for crop production to reduce the nitrate contamination of water.

Fertiliser rates should be targeted at crop production. Where tightening of fertiliser rates is necessary to limit the contamination of water with nitrates, measures should be taken. Measures should be justified by the expected effect on the risk of contamination of water by nitrates.

As established in the JRC report (2022), the use of RENURE materials instead of synthetically derived fertilisers does not increase the loss of nitrate to water. Replacing synthetic fertilisers with RENURE fertilisers should therefore not be coupled with a tighter nitrogen fertiliser application rate.

Coupling more stringent fertiliser rates with the inclusion of RENURE materials without justification is inefficient, untransparent and harmful to trust in EU institutions, which should be avoided.

We recommend that the sanctioning the use of RENURE materials by lowering the overall fertiliser rates is deleted from the proposal text. If lowering of the overall fertiliser rates is required as an effective measure to improve water quality, this lowering should be implemented uncoupled from the implementation of RENURE materials.

No definition of "processed manure" is given, inconsistent usage of terminology

RENURE materials are limited to 'processed manure', without a definition of processed manure. Therefore, it is unclear if the term refers to 'processed manure' as defined under the Animal by-product regulation, or is intended as manure that has undergone treatment?

- In other pieces of EU legislation 'processed manure' refers to the conditions and technical requirements for the hygienisation of manure as laid down in Annex XI of the Animal By-Product Implementing Regulation (EU) 142/2011 (in effect heating at 70C or more during at least 1 hour or equivalent treatment).
  Only manure meeting the processing conditions and requirements of Annex XI may be called 'processed manure'.
- In contrast, in the Nitrate Directive 'manure in processed form' is not defined but is understood to refer to livestock manure and derived products that have undergone any treatment, not limited to the hygienisation processing confirming to Annex XI of EU 142/2011.

To avoid confusion or differing interpretation and to establish a fair level playing field between countries, we recommend that the term 'processed manure' be replaced by either 'processed manure meeting the requirements of Annex XI of EU regulation 142/2011', or 'manure-derived product', as appropriate.

We also recommend clarifying the definition of "livestock manure" in the Nitrate Directive versus the definition of " manure" under the Animal by-product regulation EC 2009/1069.

Ammonium salts from scrubbing are not legally manure under the Animal by-product regulation and should not be included as RENURE

Ammonium salts from scrubbing processes are not considered manure in other pieces of EU legislation, such as the Animal byproduct regulation 2009/1069 and the Fertilising product regulation EU 2019/1009. Scrubbing salts are not derived from manure but from off-gasses, which have lost all physical connection or resemblance with manure and are accordingly not manure. This view is also held by DG SANTE and followed by DG GROW. We have outlined this in our earlier position paper[1] and Joint feedback on Evaluation of ND[2]. As these materials are not legally manure, they should not be restricted by the 170 kg N application limit and hence should not be considered as RENURE materials.

In addition, the ammonium salts from the scrubbing are already recognised as mineral fertilisers in certain Member states, and considered outside the scope of the Animal by-product regulation and outside the scope of the Nitrate Directive provisions on animal manure and RENURE. This creates an unlevel playing field for manure treatment installations in the different Member states. It also creates legal uncertainty when transporting the ammonium salts between the different EU Member states.

Ammonium salts from stripping and scrubbing during manure treatment processes should have a legal status that does not differ between the different pieces of EU law and between EU member states.

[1] *Joint Position of European Projects On the need for an unambiguous definition by the European Commission regarding the waste/manure status of ammonium salts derived from off-gas cleaning associated to treatment of manure or manure-derived products* https://www.nmi-agro.nl/2022/10/04/joint-position-of-european-projects/

[2] *Joint Feedback of the EU research projects on the Nitrates Directive Evaluation* https://www.nmi-agro.nl/wp-content/uploads/2024/02/ReNure-and-Ammonium-Salts-Joint-position-on-Nitrates-Directive.pdf

We recommend that ammonium salts should not be included under the RENURE provision in the Nitrate Directive, as they are products recycled from off-gasses which are legally not manure, hence, ammonium salts are not RENURE.

We also recommend that the text of the amendment clearly mention that -in alignment with the Animal by-product regulation (following the opinion of DG SANTE[3]) and the Fertilising product regulation (opinion DG GROW)- ammonium salts derived from scrubbing off-gasses of manure or manure treatment processes are considered recycled-derived fertiliser products and not manure or manure-derived products.

Policy coherence across the relevant EU legal frameworks

As an overarching principle, regulatory and policy coherence across the relevant EU legal frameworks should be maintained. This is particularly relevant regarding the interaction between the Nitrates Directive, the EU Fertilising Products Regulation (EU) 2019/1009 and the Animal By-Products Regulation (EC) 1069/2009 and the ambitions under the Circular Act. While these legal instruments pursue different regulatory objectives, they also share broader circular economy objectives.

We recommend that the Commission assesses the proposed RENURE provisions not only in terms of environmental protection and technological neutrality, but also regarding their consistency with existing EU legislation and broader circular economy objectives.

[3] *European Commission DG for health and Food Safety Letter to Cssrs concerning safe recycling of nutrients in Animal By Products (ABPs) and manures Ref. Ares(2022)4033785 - 31/05/2022. Response to question raised by the ESPP on 25th of April 2022 to Stella Kyriakides, European Commissioner for Health and Food Safety and: Thierry Breton, European Commissioner for Internal Market*
https://www.phosphorusplatform.eu/images/download/SANTE_Gallina_reply_ESPP_ABPs_ash_31_5_22.pdf

ABOUT THE EUROPEAN RESEARCH PROJECTS About the European Research projects

The EU has made enormous progress in the implementation of circular economy solutions. Due to a continued commitment to research (Horizon 2020) and practical implementation (INTERREG), the recovery and use of nutrients from wastes and residues is stimulated and facilitated. This is in line with the legal framework within the Circular Economy Action Plan (CEAP)[4] (FPR, WFD, CAP-Farm to Fork) under the EU Green Deal[5].

The Biodiversity[6] and the Farm to Fork[7] strategies set a common objective of reducing nutrient losses in the environment by at least 50% by 2030, while preserving soil fertility. Council Directive 91/676/EEC[8] concerning the protection of waters against pollution caused by nitrates from agricultural sources ("the Nitrates Directive") is a key piece of legislation to achieve this target and other objectives of the EU Green Deal[2].

The ReNu2Cycle feedback is based on the insights from project activities and exchanges with stakeholders and experts from other EU research projects. The European Commission has mandated and demanded a number of EU projects across different frameworks (H2020, Horizon Europe, INTERREG) to provide both Europe and the EC with scientific technical evidence and policy-oriented advice, on topics related to circular economy in general and nutrient (re)cycling in particular.

The project consortium are composed mainly of universities and research institutes, which operate independent of market parties and do not aim to represent the views of association or lobbying bodies.

The overall goal of the Nitrate Directive to protect water from the contamination with nitrates from agricultural sources is undisputed.

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4 COMMUNICATION FROM THE COMMISSION - A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final

5 Communication from the Commission - The European Green Deal, COM/2019/640 final

6 Communication from the Commission - EU Biodiversity Strategy for 2030 - Bringing nature back into our lives, COM/2020/380 final

7 Communication from the Commission - A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, COM/2020/381 final

8 Council Directive (91/676/EEC) concerning the protection of waters against pollution caused by nitrates from agricultural sources