

Events	1
18 th CRU Phosphates & Potash 2026, Paris, 13-15 April 2026	1
16 th April 16h00-17h30 CET (online): climate emissions from phosphate fertiliser use	1
ESNI-NERM 2026: the flagship event on nutrient research, Brussels, 28-29 April 2026	2
Implementation of EU UWWTD art. 20 P reuse and recycling rates, Madrid 8-9 June	2
6 th European Sustainable Phosphorus Conference ESPC6 24-26 November 2026, Benguerir, Morocco	2
SCOPE Newsletter n°159 published	3
Summary ESPP Critical & Strategic Raw Materials workshops	3
Consultations and calls	3
JRC – Basel joint PhD position on soil erosion – phosphorus loads - eutrophication	3
EU consultation on Common Agricultural Policy (CAP) evaluation	3
EU consultation on Livestock Strategy	3
EU consultation on Water Framework Directive	3
EU consultation on Taxonomy simplification	4
EU consultation on environmental regulation simplification	4
UK Government consultation on directions for new UK fertilisers regulations	5
ESPP new member	5
Gilbert RegTech: regulatory support for recycled nutrients	5
Policy	6
Recycling manure & the Nitrates Directive: RENURE amendment published	6
Proposed EU “Industrial Accelerator Act”	6
ESPP calls on the EU for action on four materials currently excluded from the FPR	6
EU abandons Sustainable Food System initiative	7
Discussion paper by Ramboll on creating a market for recycled phosphates	7
Nutrient Platforms members’ webinar	8
Roland de Bruijne, Knoell: How to place recovered nutrients on the market?	8
Nutrient recycling and fertilisers	10
STOWA report on trials of BIOPhree® end-of-pipe P-removal and P-recovery	10
Enhanced Efficiency Fertilisers (EEF) respond to EU green regulatory pressures	10
Research	11
Study misleadingly claims to show links between food additives and obesity	11
Phosphorus fertiliser supply in the media	11
The environmental importance of ABP valorisation	11
ESPP Members	12
Stay informed	12

Events

18th CRU Phosphates & Potash 2026, Paris, 13-15 April 2026

The annual world P and K industry & technology meeting place, covering the whole industry value chain: mining and resources, beneficiation, fertilisers – feed and industrial applications, environmental aspects of production management, sustainability.

18th CRU Phosphates & Potash 2026, Paris (Paris Marriott Rive Gauche Hotel), 13-15 April 2026 <http://events.crugroup.com/phosphates/home>

Conference discount code available on request from ESPP for ESPP members.



16th April 16h00-17h30 CET (online): climate emissions from phosphate fertiliser use

How does the use of P fertilisers in the field impact climate emissions, e.g. via eutrophication effects or mitigation, crop carbon, soil carbon cycling. Online workshop will input to the Low Carbon Roadmap for the phosphate industry

Online workshop, 16th April 16h00 - 17h30 CET. Programme and registration <https://www.phosphorusplatform.eu/scope-in-print/news/2755-climate-emissions-from-phosphate-fertiliser-use>

ESNI-NERM 2026: the flagship event on nutrient research, Brussels, 28-29 April 2026

ESNI-NERM is the joint European conference on nutrient research, organised by the Biorefine Cluster and ESPP, addressing the scientific issues, developments and challenges of nutrient management and nutrient recycling.

NERM-ESNI Tue. 28th April 2026 12h00 – Wed. 29th April 16h30

<https://www.biorefine.eu/esni-nerm-2026/>

ESNI-NERM

28-29 April 2026 Brussels & hybrid

Implementation of EU UWWTD art. 20 P reuse and recycling rates, Madrid 8-9 June

ESPP workshop to input to the development of proposals for phosphorus “reuse and recycling rates” from sewage, update on P-recovery, with participation of the European Commission Joint Research Centre (JRC).

This workshop will enable direct dialogue between phosphorus recycling technology suppliers, wastewater operators, fertiliser companies and regulators working on defining the implementing criteria for the Urban Waste Water Treatment Directive nutrient removal and (art. 20) phosphorus “reuse and recycling rates”:

- EU policy context and UWWTD art. 20 implementation work ongoing: European Commission JRC
- Spain policy context: Spanish Ministry for Ecological Transition and Demographic Challenge
- Are “Quotas” an appropriate policy tool? (recycled phosphorus content obligations for fertilisers)
- Sewage sludge incineration and alternative thermal processes: costs, logistics, energy recovery, phosphorus recovery
- Sewage biosolids valorisation to agriculture
- Digestion processes to release soluble P from sewage for higher recovery rates

To present an update on your recycling technology or to speak at this workshop, contact info@phosphorusplatform.eu

Workshop on phosphorus reuse and recycling from urban wastewater, Madrid, Monday 8th June 14h00 – Tuesday 9th June 12h30 plus site visits Tuesday 9th afternoon. <https://www.phosphorusplatform.eu/WorkshopMadridArt20>



Implementation of EU UWWTD art. 20: P reuse and recycling rates

8th -9th June 2026
Madrid, Spain

6th European Sustainable Phosphorus Conference ESPC6 24-26 November 2026, Benguerir, Morocco

www.phosphorusplatform.eu/ESPC6

ESPC is the world’s leading sustainable phosphorus event, every 2-3 years. Don’t miss it! ESPC6 will include a site visit to an OCP phosphate mine, rock beneficiation and processing.

ESPC6 is co-organised by OCP Group and ESPP, with the support of UM6P (Université Mohammed VI Polytechnique).

ESPC6 will take place at UM6P Université Mohammed VI Polytechnique, in Benguerir, 1 hour shuttle from Marrakech, with accommodation in Benguerir or Marrakech.

ESPC6 will address:

- ✓ Fertilisers, P-stewardship and their role in supporting sustainable food systems and food security
- ✓ Interactions between climate change and phosphorus, including impacts on P dynamics, carbon sequestration, soil fertility, crop productivity, and nutrient requirements
- ✓ P-recovery and recycling
- ✓ P-removal
- ✓ Sustainability in P mining and processing
- ✓ Other aspects of P chemistry, P management, and P different uses.

In addition to the site visit, side events may include a Young Nutrient Researchers Day.

Deadline for abstracts 30th April 2026. Please send abstracts and proposals ESPC6@phosphorusplatform.eu



SCOPE Newsletter n°159 published

Summary ESPP Critical & Strategic Raw Materials workshops

Now published: ESPP SCOPE Newsletter n°159 summarises the ESPP workshops on Phosphate Rock and on White Phosphorus (P₄), as Critical Raw Materials, Brussels and online, 19th-20th November 2025, held during the EU Raw Materials Week (18th - 20th November 2025). These workshops examined the increasing criticality of phosphates and P₄ for the EU, from agricultural uses to strategic industrial applications, gathering industry experts, stakeholders, researchers and policy makers.

www.phosphorusplatform.eu/Scope159

Consultations and calls

JRC – Basel joint PhD position on soil erosion – phosphorus loads - eutrophication

Application deadline 6th April 2026. PhD will develop integrated, reproducible modelling approaches to quantify soil- and sediment-driven nutrient pollution and eutrophication in European catchments, will propose an EU turbidity and sediment monitoring framework and will integrate findings into the EU water policy framework. Salary whilst at JRC Ispra, Italy, will be 45 000 €/y gross, and will be Basel University salary and benefits when there.

Information: https://duw.unibas.ch/fileadmin/user_upload/duw/UGW/Team/VACANCY_1_JRCBasel_Eutrophication_FINAL.pdf

EU consultation on Common Agricultural Policy (CAP) evaluation

Public consultation open to 6th April 2026 on proposed objectives and organisation of the evaluation of the current CAP. The Commission proposes that the evaluation particularly address the impacts of the 2024 CAP simplification (administrative burdens of compliance, reporting, penalties), added value of the CAP at the EU level (versus national agricultural policy), relevance of the CAP to address current needs and challenges (are cited as examples: farm incomes, food security, environment and climate, market shocks, rural areas).

EU public consultation open to 6th April 2026, “2023-2027 common agricultural policy – mid-term evaluation”, Call for Evidence, input = 4000 characters plus optional document https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/16032-2023-2027-common-agricultural-policy-mid-term-evaluation_en

EU consultation on Livestock Strategy

Public consultation open to 10th April 2026 on defining an EU Strategy for the livestock sector to address sustainability, animal welfare, competitiveness and territorial diversity. The Commission states that the Strategy should support the Common Agricultural Policy (CAP), ensure effective markets and promote environmental protection and animal welfare. Cited challenges to the sector include economic viability, environment and climate footprint and opportunities cited include improving feed efficiency, nutrient management and manure valorisation, integration with crop systems and maintenance of grasslands.

EU public consultation open to 10th April 2026, EU Call for Evidence, input = 4000 characters plus optional document, “Livestock Strategy” https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/16832-EU-livestock-strategy_en

EU consultation on Water Framework Directive

EU public consultation open to 14th April 2026. Call for evidence on proposal to possibly revise the Water Framework Directive to facilitate projects for extraction, processing and recycling of Critical Raw Materials. This was anticipated in the ResourceEU Action Plan published in December 2025. The Consultation Call for Evidence document states that mining and metal processing industries claim that the Directive’s provision preventing deterioration of water bodies is an obstacle to permitting for Critical Raw Materials projects. It says information is sought on examples of bottlenecks resulting from the Directive, environmental impact of CRM projects, costs of mitigation and proposals for permitting simplification. ESPP considers that phosphorus recycling or other phosphorus-related projects should not deteriorate water quality, and that sustainable phosphorus stewardship and societal acceptance require synergy between phosphorus recycling and eutrophication mitigation.

EU public consultation open to 14th April 2026 “EU water policy – targeted revision of the Water Framework Directive”, Call for Evidence, input = 4000 characters plus optional document https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/17034-EU-water-policy-targeted-revision-of-the-Water-Framework-Directive_en

EU consultation on Taxonomy simplification

EU public consultation open to 14th April 2026. The European Commission has published for consultation a proposed amendment to EU green finance criteria (Taxonomy). The nearly 300-page proposal is very complex to read. The main aims are to simplify reporting and verification, in order to improve useability and uptake of the Taxonomy criteria.

ESPP had requested widening of “phosphorus recovery” to cover P-recovery from digestates, not only from sewage as at present, and clarification of the wording concerning P-recovery from sewage (see [ESPP eNews n° 102](#)). These proposals are not taken into account.

To ESPP’s understanding, the only change in the proposed amendment relevant to nutrient recovery is to clarify slightly the existing requirement that composts and digestates of biowastes should be conform to the EU Fertilising Products Regulation or to national fertiliser regulations.

The proposed amendment Recital 26 states that “*The activities of anaerobic digestion of sewage sludge, composting and anaerobic digestion of bio-waste should be revised to allow for the production of products or chemicals other than fertilisers and soil improvers or biogas*”. To ESPP’s understanding, this is not in fact implemented in the proposed amendment texts. And in any case, the current Taxonomy criteria for P-recovery from sewage already specify “*The phosphorus extracted ... is used either as a component material in a fertilising product compliant with [the EU FPR] or national fertiliser legislation where it is more stringent, or in another field of application, where the recovered phosphorus fulfils specified functions, in accordance with the respective regulations.*”

EU public consultation open to 14th April 2026 “Sustainable investment – review of the EU taxonomy climate delegated act”, draft Delegated Act, input = 4000 characters plus optional document https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14875-Sustainable-investment-review-of-the-EU-taxonomy-climate-delegated-act_en

EU consultation on environmental regulation simplification

Public consultation open to 7th May 2026 on Commission outline plans to simplify environmental reporting obligations and various other environmental regulatory requirements (see also [ESPP eNews n°99](#)). The measures are titled “Simplifying for sustainable competitiveness” and are outlined in a Commission Communication (10 pages) with further detail in an accompanying Staff Working Document (30 pages), both open for public comment. The Commission’s proposals include:

- under the Industrial & Livestock Emissions Directive
 - simplification of the Environmental Management System and some other reporting obligations
 - exclude Organic poultry farms
 - exemption from reporting on water, energy and materials used for livestock and aquaculture
- simplification of Extended Producer Responsibility: reducing data reporting, digitalisation, harmonisation of producer registration
- site permitting procedures
 - streamline and accelerate for installations related to Critical Raw Materials, electricity supply and grid, clean energy projects
 - accelerate environmental assessments for permitting
- possible future “targeted revision” of the EU chemicals regulation REACH
- aim to “create a single market for waste and recycled materials” under the future Circular Economy Act
 - simplification and harmonisation of data and reporting
 - “green listing” of certain wastes (see [ESPP eNews n°101](#))
- simplification of certain points of the EU Water Framework Directive and of the Marine Strategy Framework Directive
- nature protection legislation
 - support Member States and regions in preparing National nature restoration plans
 - reassessment of certain aspects of the Birds and Habitats Directives
- Nitrates Directive: continue evaluation of how to facilitate manure valorisation, including with the (now published, see below) ‘Renure’ regulatory changes for some manure recycled nutrient materials (see [ESPP eNews n°100](#))
- support implementation of the Packaging and Packaging Waste Regulation
- assessments of Single Use Plastics, Ecodesign, Environmental Management EMAS, Noise legislations.

EU public consultation open to 7th May 2026 “Simplification of administrative burdens in environmental legislation”, draft amendments to Regulations, input = 4000 characters plus optional document https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14794-Simplification-of-administrative-burdens-in-environmental-legislation_en

European Commission, 10th February 2026 “Simplifying for sustainable competitiveness”, Communication COM(2025)990 (10 pages) and Staff Working Document COM(2025)980 final (30 pages).

UK Government consultation on directions for new UK fertilisers regulations

UK consultation open to 13th May 2026 on a proposed outline for new UK fertilisers regulations, but covering only inorganic fertilisers and liming materials (etc) based on virgin chemicals.

The consultation states that the future UK FPR would be based on “Conformity Assessment” rather than (as is the EU FPR) on exhaustive lists of materials, stating this to be “an outdated approach to product regulations”. However, the proposed structure seems to be that of the EU FPR, with a limited list of input materials (CMCs). Also, materials “which have not achieved end of waste status” would not be allowed in UK FPR products with the proposal limiting to virgin chemical inputs only. This seems to contradict the announced objective which is to move to a UK FPR responsive to innovation in new input materials, new fertiliser technologies and recycling. Another stated objective is to ensure verification of product claims such as “low-carbon” or “low-emission”.

The proposal would replace the 1991 UK Fertilisers Regulations, and is joint initiative between the four nations, with the aim of a single UK FPR across England, Wales, Scotland and Northern Ireland. The consultation seeks view on technical requirements and parameters to be included in the Conformity Assessment, not at this stage on the values to be specified, and on how a UK FPR Conformity Assessment could function (self-declaration, accreditation bodies, standards).

It is unclear whether products will be able to be sold in the UK under either the EU FPR or the future UK FPR, but the aim seems to be to set a similar framework. However, the current UK FPR proposal covers only a limited part of the product types (PFCs) and input materials (CMCs) covered by the EU FPR:

- PFCs covered: inorganic fertilisers, liming materials, inhibitors and blends (NOT organic or organo-mineral fertilisers, biostimulants, soil improvers, growing media, polymers),
- CMCs covered: virgin chemicals only (CMC1)
- The consultation includes a specific and separate questionnaire on biostimulants.

The consultation questionnaire asks stakeholders whether they consider that CE-Mark EU fertilising products should be recognised in the UK for products corresponding to other FPR PFCs or containing input materials corresponding to other CMCs.

In ESPP’s view, by limiting to only inorganic products and to ‘virgin’ inputs, the proposal would fail to contribute to nutrient recycling, and would open no possibilities for innovation beyond those already opened by the EU FPR. ESPP also does not see any value in establishing a distinct UK route for inorganic, virgin fertilising products (distinct from the EU FPR route), given that the EU FPR requires only self-certification for such materials.

ESPP will submit a letter to the open consultation expressing this position.

UK public consultation open to 13th May 2026, “UK fertilisers: regulatory reform” <https://consult.defra.gov.uk/fertilisers-team/uk-fertilisers-regulatory-reform/>

ESPP new member

Gilbert RegTech: regulatory support for recycled nutrients

Gilbert is joining the European Sustainable Phosphorus Platform to contribute to systems and workflows that help phosphorus sustainability move from ambition into practice across Europe. The rollout of many recovered and recycled nutrient products is delayed, not because the technology is lacking, but because the route to market is slowed by fragmented compliance evidence, inconsistent documentation and a lack of coordination between manufacturers, consultants and conformity assessment partners. Gilbert was built to reduce exactly that friction. The platform helps companies manage EU fertiliser compliance under Regulation 2019/1009 through structured workflows for product, ingredient and evidence data, multilingual labels and Declarations of Conformity, Technical Dossier generation, PFC 7 blend management, and Module D.1 documentation.

This is where Gilbert connects strongly with ESPP’s mission. Phosphorus sustainability needs more than innovation at the product level; it also needs practical systems that make sustainable products easier to validate, document and place on the European market. Gilbert provides that enabling layer through automation: it brings data together in one controlled environment, generates consistent dossier outputs, supports traceability, and flags regulatory or documentation issues before they create delay. This work is grounded in direct regulatory practice, with one founder active in the Notified Body environment and the other supporting manufacturers on Module D.1 projects. Through ESPP, Gilbert wants to contribute practical tools, regulatory insight and implementation experience, to help sustainable phosphorus products reach the market with less rework and more confidence.

<https://gilbert-regtech.eu>

Policy

Recycling manure & the Nitrates Directive: RENURE amendment published

Nitrates Directive modification for fertiliser use of manure-recovered nitrogen is now published, facilitating recycling of struvite, ammonia scrubbing salts and reverse osmosis concentrates from manure, under restrictive conditions. This “RENURE” (recycled nutrients from manure) amendment allows these three manure-derived materials (only) to be partially exonerated from the Nitrates Directive limits on manure spreading in Nitrate Vulnerable Zones (they remain subject to the total N limits in such Zones). This exoneration is subject to restrictive conditions:

- Material production quality control standards, to be set by Member States
- Copper, zinc and pathogen limits,
- Accompanying documentation specifying N and P contents
- To benefit from the amendment, Member States must
 - ensure that livestock numbers do not increase at the national or local level (depending on manure production)
 - tighten limitations on N fertiliser application to compensate any increased risks of N losses to water and air
 - ensure cover crops or similar on land where the concerned materials are used
 - ensure application techniques to reduce ammonia losses
 - define storage conditions to avoid possible emissions
 - ensure that use of these materials does not compromise attainment of objectives of EU water and air policies (e.g. Water Framework Directive, Habitats Directive, Drinking Water Directive ...)
 - report data to the European Commission on production of such materials, livestock numbers, manure production ...

These conditions probably mean that ‘RENURE’ materials, validated for one Member State / Nitrate Vulnerable Zone, cannot be sold or transported without retaining a “manure origin” traceability, and may remain subject to manure-N spreading restrictions in another Member State or a different Nitrate Vulnerable Zone.

ESPP has already expressed that:

- The text will allow materials with significant organic content or which are very dilute and do not have sufficient economic value to justify transport costs (dilute ‘mineral concentrates’ or scrubbing solutions, struvite containing nearly 6% organic carbon). This will not incite to transport manure nutrients outside livestock hotspot regions.
- The definitions of the three materials are not clear, so may result in varying Member States interpretations and in obstacles to investment (legal uncertainty), whereas the clear and consensus criteria of the EU Fertilising Products Regulation could have been referred (CMC12 for struvite, CMC15 for recovered ammonia salts, PFC1(C)(I)(b) “Liquid Inorganic Macronutrient Fertiliser” for mineral concentrates)

See ESPP [input](#) to the May 2024 public consultation on this proposed text and ESPP eNews [n°99](#) and [n°100](#).

“Commission Directive (EU) 2026/288 of 9 February 2026 amending Council Directive 91/676/EEC as regards the use of certain fertilising materials from livestock manure”, published in the EU Official Journal 10th February 2026 <https://eur-lex.europa.eu/eli/dir/2026/288/oj/eng>

Proposed EU “Industrial Accelerator Act”

The European Commission has submitted to Parliament and Council a proposed Industrial Accelerator Act, aiming to boost EU raw materials, chemicals, automotive component and net-zero technology industries. The Act will incite public procurement and incentives (“Made in EU”), set conditions for large foreign investments in batteries / green energy and critical raw materials, facilitate / digitalise site permitting and create “Industrial Acceleration Areas”. The Act adds to existing tools such as the EU Critical Chemicals Alliance ([ESPP eNews n°104](#)), European Chemicals Industry Action Plan ([COM\(2025\)530](#)) and the Critical Raw Materials Act ([ESPP eNews n°92](#)). Net-zero technologies are those defined in Regulation [2024/1735](#), and include “sustainable biogas and biomethane technologies”, hydrogen – ammonia conversion.

European Commission proposal for a Regulation “Industrial Accelerator Act”, 4th March 2026 https://single-market-economy.ec.europa.eu/publications/industrial-accelerator-act_en

ESPP calls on the EU for action on four materials currently excluded from the FPR

Following the ESPP & Nutrient Platforms members webinar (see below), ESPP has called on the European Commission to move forward on allowing wool, aquaculture sludge, animal by-products and recovered additives in EU fertilisers. As underlined by Platform members during this webinar, these materials are today still not authorised as input materials under the EU Fertilising Products Regulation (FPR), despite requests from stakeholders, significant recycling value potential, and for wool and animal by-products (ABPs) explicit reference by the European Parliament and Council in the FPR text adopted in 2019.

ESPP letter to the European Commission (DG GROW), 16th March 2026 www.phosphorusplatform.eu/regulatory

EU abandons Sustainable Food System initiative

The European Commission has announced (26th March 2026) the abandonment of the Sustainable EU Food System Initiative. This was a commitment of the EU Farm-to-Fork policy which The Farm-to-Fork policy announced a legislative proposal for a framework for a sustainable food system, including definitions, elements for sustainability analysis, general minimum sustainability standards, sustainability labelling, minimum mandatory sustainability criteria for public purchasing, governance, actions to mitigate negative impacts. An EU public consultation in 2022 (see ESPP eNews n°66) which particularly indicated food sustainability information and labelling, public procurement of food for schools and public institutions, certain aspects of dietary choice (sugars, salt, saturated fats, red meat ...), food advertising and marketing.

“Sustainable EU food system – new initiative” https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13174-Sustainable-EU-food-system-new-initiative_en

Discussion paper by Ramboll on creating a market for recycled phosphates

Twelve policy recommendations include maintaining German P-recycling deadlines, requiring P-recycling to ensure contaminant removal, legalising recycled P in animal feeds, requiring recycled P quotas in fertilisers, as well as promoting recycled fertilisers in public purchasing and in the EU’s Common Agricultural Policy (CAP).

The paper underlines that phosphorus is essential for food production and that Germany is 100% import dependent, with phosphate fertilisers supplied by a small number of highly vertically-integrated global companies, with only one phosphate fertiliser production site in Germany. The paper estimates that P-recovery from Germany’s sewage could generate 50 ktP/y, compared to c. 90 ktP/y mineral P fertiliser use.

The paper suggests that the objective fixed by the German Wastewater Treatment Ordinance (AbfKlärV) to reduce pollutant inputs to soil can only be achieved if P-recycling routes remove contaminants and do not transfer them to recycled fertilisers, and that therefore processes where the P remains in the sludge ash matrix (modified to become part of the recycled fertiliser) should not be developed (“matrix retention” processes, as opposed to “matrix decoupling” processes, where the P is extracted from the sludge or ash matrix to a purified product).

The German Fertiliser Ordinance (DüMV) sets pollutant limits. Most sewage sludge ashes only comply with these limits after processing to reduce contaminants and some stakeholders are calling for the DüMV to be modified to allow higher pollutant levels. The Ramboll paper argues against this, considering that ash-based fertilisers without contaminant removal reintroduce back into the environment pollutants which were removed in sewage treatment. Ramboll suggest that a mass-balance approach should be used to show that contaminant limits are not achieved by dilution or mixing. The paper considers that German national legislation should not allow fertilisers with higher contaminant levels than set by the EU Fertilising Products Regulation.

The paper therefore recommends moving to mono-incineration of all German sewage sludge, whereas over one third of German sewage sludge currently goes to co-incineration (cement kilns, energy or electricity production). This would require construction of over 20 P-recovery from ash plants (of capacity 30 000 t/y sewage sludge), beyond the two currently under start-up (Remondis Hamburg) or construction (EasyMining / Gelsenwasser, Schkopau – [ESPP eNews n°100](#)) [ESPP note: now three, with Emter / R-Rhenania, Altenstadt, see [ESPP eNews n°102](#)]. In that maybe seven years are needed between decision and start-up for such plants, it is estimated that only 20% of the necessary capacity will be in place by the German legal deadline of 2029. The paper nonetheless recommends maintaining this deadline, in order to provide certainty for investment, but to levy operators not achieving the deadline.

The paper recommends “recycles utilisation quotas” applicable to companies distributing “phosphorus fertiliser” in the EU (manufacturers and importers, with possible quota trading). It is considered that this would result in guaranteed purchase from P-recycling, so sharing costs across “all market participants”. An initial level of 5% blending rate is proposed (c. 10% of the P in German sewage sludge), progressively rising. The Ramboll paper considers a quota applicable to mineral P fertilisers only.

ESPP suggests that a number of questions need to be addressed concerning practical implementation of a possible quota system for recycled P in fertilisers: What about organic and organo-mineral fertilisers ? How to ensure that the quota obligation does not result in the fertilisers industry being obligate to intake low-quality materials not corresponding to industry or farmer needs ? How could farmers pass on increased fertiliser costs ? See the Eunomia study commissioned by ESPP which identifies over 40 questions which policymakers should take into account if considering possible quotas for recycled phosphorus in fertilisers (minimum recycled content) – see [ESPP eNews n°104](#).

“Phosphorus as a strategic resource. Recommendations for action by the water industry to establish a market for secondary phosphorus”, Discussion paper by Ramboll Management Consulting / civity, 2026
https://www.bdew.de/media/documents/Phosphorus_as_a_strategic_resource_Ramboll_EN.pdf

Nutrient Platforms members' webinar

Roland de Bruijne, [Knoell](#): How to place recovered nutrients on the market?

Summary of Nutrient Platforms members' webinar 25th February 2026: 105 participants joined this webinar, which was reserved for members of [ESPP](#) and the national nutrient platforms (Catalunya, [Germany](#), [Italy](#), [Netherlands](#), Sweden).

Workshop slides are available for platforms' members only, on request from info@phosphorusplatform.eu

Knoell regulatory services

[Knoell](#) offers substance and product registration services according to national, EU and worldwide applicable legal frameworks including fertilising products, chemicals, agrochemicals, biocides, feed and foods. Services include proposals of possible routes for placing on the market after analysis of input materials, product composition and production processes; data gap analysis and study coordination, dossier preparation and registration application, LCA and carbon foot printing.

To be or not to be ... waste ?

When preparing to place a fertilising product on the European market that consists of, or is derived from, a residue, the operator must determine whether the material should be classified as **waste** or **non-waste**.

The definition of waste and the relevant exclusions under the EU Waste Framework Directive 2008/98/EC (WFD) were outlined. In practice, this means that most residue-based materials fall under the classification of **waste**, and consequently are treated as such by regulators and customers.

Fertilising products can be placed on the market with "waste" status, or End-of-Waste status can be obtained.

Should I place on the market as waste?	
Advantages	Difficulties
<ul style="list-style-type: none"> • No need to obtain End-of-Waste: dossier preparation costs, administration, time, Certification costs • REACH is not required for waste and waste may escape specific product regulations, CLP (Classification Labelling and Packaging). • Some sectors or companies have this in place voluntarily 	<ul style="list-style-type: none"> • National End-of-Waste 'falls' if a material is transported across a border, unless Mutual Recognition has been obtained, which is often not possible. Only EU Fertilising Products Regulation Certification provide a general accepted EU End-of-Waste status. • Obligatory traceability, producer "cradle-to-grave" responsibility, application under waste management plan • Complex documentation for transport. • Cross-border transport very difficult. • User may require Permit to take waste. • Customer image – lower (or negative) price?

The process for obtaining End-of-Waste status, at EU or at national level was explained. It is underlined that in some countries, national Fertilisers Regulation Certification may not give national End-of-Waste (the material can be used as a fertiliser for its agronomic value, in the relevant Member State, but remains a "waste"). Examples of national End-of-Waste and fertilising product regulations were presented for several different countries.

Although the WFD defines (art. 6) how national End-of-Waste should be defined, interpretation by different Member States (or in some cases Regions within Member States) are variable. Not only is the administrative process very different, but also data and evidence required vary widely. For example (e.g. to demonstrate the absence of environmental/health impacts as required by the WFD art. 6). This is one reason why Mutual Recognition is very difficult, because of acceptance for import by a Member State of a national fertiliser and End-of-Waste status given by another Member State. Another reason is that countries generally have little 'political' motivation to recognise and import national fertilising products from suppliers in another country. CE-Marking of fertilisers under the EU Fertilising Products Regulation (EU) 2019/1009 is designed to overcome such legal and cross-border movement constraints.

Participants' questions discussed included the challenges to cross-border shipment of "waste", the "normal recycling authorisation", the possibility though doubtful effectiveness of taking national End-of-Waste refusals to the European Court of Justice (see e.g. Sappi etc. ECJ [C620/19](#)).

Participants noted the regulatory obstacle that the "normal recycling authorisation" only applies to "waste" so excluding processing additives.

➔ ***ESPP requested communication examples of specific companies / products / processing, which can support a request to the [European Commission to address this obstacle \(additives and 'normal recycling' privilege\).](#)***

REACH and CLP

Knoell emphasised that if a material obtains end-of-waste status (national or EU), it ceases to be a waste and enters a commercial product status under applicable legislation, and then it will become subject to REACH registration and CLP (Classification Labelling and Packaging) regulation obligations, unless it benefits from a specific exclusion. These obligations can be complex and expensive.

Materials exempted from REACH include:

- Natural materials, such as plant or animal parts. However, if processed then they are NOT excluded. For example, yeast is not subject to REACH, but yeast extract requires REACH registration; plant materials are not subject to REACH, but after fermentation or pyrolysis/biochar the resulting materials do require REACH registration.
- Composts and digestates are excluded from REACH, but again may not be if processed.
- Natural minerals, such as phosphate rock or water, are excluded.

If in doubt about whether a recovered material requires REACH registration, operators should seek professional advice or contact their national Helpdesk ([list here](#)). If a “similar” material has not already been registered by another company, the REACH dossier may be prohibitively expensive. If it has already been registered, then you will need to purchase “access” to the dossier and/or carry out studies to prove “sameness” of your material (depending on whether art. 2(7)d of REACH for “recovered substances” is applicable). Knoell provides regulatory support for this type of REACH inquiry and prepares the dossier.

Fertilising Products Regulation (EU) 2019/1009 (FPR)

Knoell also outlined the structure and application of the FPR, including the different PFCs (Product Function Categories) and CMCs (component material categories). A CE Mark confirms that the materials used in the fertilising product meet all the requirements from the FPR and consequently obtain the commercial product status and cease to be a waste. Thus CMC-conform input materials intended for use in an EU fertiliser do not obtain end-of-waste status until the final product is produced, labelled (FPR Annex III), has undergone Conformity Assessment by a Notified Body (FPR Annex IV) and is certified. Knoell noted that the FPR has undergone numerous updates and changes since its initial adoption in 2019 and stakeholders should ensure that they always refer to the most recent Consolidated Text [here](#) plus [CMC11](#) (for legal reasons, CMC11 is not included in the Consolidated Text). Knoell summarised work currently underway to possibly allow input materials which are currently excluded (additional ABPs, other materials being studied in the [NMI report](#)).

On request of participants, it was clarified that sewage / sewage sludge is today authorised as an input material under the FPR only for CMC12 (precipitated phosphates) and CMC13 (ash products). Possible future inclusion of sewage-derived vivianite and sewage sludge biochars is currently under discussion (NMI report, see above).

Participants raised questions concerning additives used in EU FPR fertilising products. Knoell clarified that there are two cases:

- **Additives incorporated into the final product**, e.g. adhesives for granulation, lubricants to prevent agglomeration, pH adjusters, preservatives ...
As for any material deliberately incorporated into the final fertilising product, all additives are CMCs in the product, irrespective of the % dosing. They must therefore be declared and conformity assessed as CMCs. If the additives are virgin chemicals (CMC1), then they are subject to the REACH registration requirements specified in CMC1 (this may in the future be simplified under the current Chemicals Omnibus Regulation proposal).
Participants noted that this can pose problems if recycled materials are used as additives. For example, recycled oils are currently not authorised as lubricants. Biochars can only be authorised as additives if conformity is assessed as CMC14.
- **Additives added into the production process to produce a CMC**, e.g. additives used in composting or digestion.
The FPR criteria here are different and specific to each CMC, and can include maximum additive levels (as % of input materials), see e.g. specific criteria for processing additives in CMCs 3 and 5.

The FPR is not mandatory. Operators can place fertilising products on the market under national fertiliser regulations, without going through the FPR. However, in this case, the authorisation is only valid in the Member State in which the material is certified, unless other Member States (on a one-by-one basis) accord ‘Mutual Recognition’ (see above). This is difficult to obtain, so that in many cases, a new and different application dossier is required for each Member State. If you intend to sell or produce in more than one EU Member State, FPR Certification can thus be the best and least expensive route (if your material is FPR-eligible).

Animal By-Products (ABP)

Knoell, presented the complexities which result when a secondary material is an ABP (Animal By-Product, or Derived Product). He noted that separately collected household or catering organic wastes (“biowaste”) is classified as ABP because it (may) contain discarded meat materials.

Similar to waste regulation, ABPs can benefit from national or EU “End-Points” under the ABP Regulation 1069/2009 and its daughter regulations. These “End-Points” are separate from “End-of-Waste” (a material can cease to be ABP but remain waste, or vice-versa). The EU FPR grants both EU ABP End-Point and End-of-Waste to certain ABPs, when incorporated into Certified CE-Mark EU fertilising products.

The Animal By-Products which are today authorised in the FPR are: manure, biowastes and most Cat. 2 and 3 materials as inputs to composts (CMC3), digestates (CMC5) and ash-based fertilisers (CMC13), in all cases under specified processing conditions, and “Processed Manure” under specified conditions in CMC10 (see [ESPP eNews n°89](#)). Other ABPs are still pending, following the conclusion of the [QLab report](#) May 2025, which proposed conditions for inclusion of around ten different ABPs into CMC10.

Participants pointed to two ABP materials which are today not authorised in the FPR:

- **“fish sludge” from aquaculture**. This contains significant quantities of phosphorus, as well as organics and methane production potential. This has been confirmed by the European Commission DG SANTE to be an ABP, but because of regulatory loopholes (fish excreta is “not manure” according to the ABP Regulation), it is not currently taken into the EU FPR. There are safety questions to address. See information in ESPP [SCOPE Newsletter n°158](#).

→ *ESPP intends to launch a working group on 'fish sludge' with industry, research and stakeholders: if interested, please contact veronica.santoro@phosphorusplatform.eu*

- **Wool**, raw and treated. This is rich in nitrogen and is authorised as a fertilising product in some countries (e.g. Netherlands). Wool was specifically included in the materials listed by Parliament and Council which the Commission should have acted to include into the FPR by January 2020 (art. 46.4 of the FPR).

It was noted that a number of aquaculture residue streams other than 'fish sludge' are allowed as inputs to the FPR. Clean shellfish shells are not ABPs (excluded from 1069/2009 by art. 2.2(f)), but are waste. Fish processing residues (e.g. from seafood processing factories) are Cat 2 ABPs, and so authorised for input to FPR composts, digestates and ash products. Fish meal is covered by the ABP definition of processed animal protein or hydrolysed protein (see the [EU FPR FAQ](#), Q8.42), which may in the future be included into FPR CMC10 (NMI report underway, see above).

Nutrient recycling and fertilisers

STOWA report on trials of BIOPhree® end-of-pipe P-removal and P-recovery

BIOPhree uses iron oxide granules to treat final sewage works effluent after tertiary filtration, achieving down to 0.1 mgP/l, with the possibility to recover a 2 – 3 gP/l phosphate solution using NaOH for regeneration. BIOPhree is developed by Haskoning and Aquacare, see SCOPE Newsletters [158](#), [156](#), [138](#), [132](#). The STOWA (Netherlands Applied Water Research Foundation) report presents results of 14 months testing of a 3 m³/h continuous-operation pilot at Dronten wwtp (Zuiderzeeland water board). BIOPhree is designed to operate downstream of tertiary fines filtration, and for this test at Dronten the wwtp effluent passed through a multi-media filter (backwashed several times per day) before entering the BIOPhree columns. Regeneration of the iron oxide granules was tested during part of the pilot trial, with 6 regenerations using 5 bed volumes of 1 molar sodium hydroxide, followed by soft-water rinsing. The regeneration liquor was then passed through a nanomembrane filter to separate sodium hydroxide which could be reused for regeneration from phosphate, with the final concentrate being 2,000 – 3,000 mgP/l. At lab scale, precipitation of calcium phosphate from the regeneration liquor was tested by adding calcium chloride, showing the possibility of phosphate recovery. Under appropriate conditions of stable inflow, phosphorus concentrations and effective bed regeneration, the trial results show that P-removal from input of 0.9 mgP/l to below 0.1 mgP/l can be achieved. The iron oxide granules showed initial phosphorus adsorption capacity of c. 8 gP/kg, dropping and stabilising at 5-6 gP/kg after 3 regeneration cycles. Regeneration was necessary after around 6 000 bed volumes throughflow, depending on inflow phosphorus concentrations. The regeneration solution contained c. 220 mgDOC/l, of which 80% was humic acids, which could possibly have an economic value if recovered. Based on these pilot results, STOWA make a cost estimation of 890 €/kgP-removed, or 0,53 €/m³ for a 100% of effluent of a hypothetical 100,000 P.E. wwtp, for BIOPhree treatment to reduce 0.7 mgP/l down to 0.1 mgP/l. In a scenario with an effluent goal of a yearly average P-concentration of 0.3 mg/lP, 1.2x the dry weather flow is treated, during which the effluent quality is under 0.1 mgP/l. During higher flows, the BIOPhree unit is partially by-passed, resulting in a yearly average of 0.3 mgP/l. Cost estimations for this scenario are 443 €/kgP removed or 0.18 €/m³ (based on the total capacity of the wwtp).

"Pilotonderzoek vergaande fosfaatverwijdering uit RWZI-effluent met de BIOPhree? technologie", STOWA report 28-2025, ISBN 978.94.6479.078.8, in Dutch, 50 pages <https://www.stowa.nl/publicaties/pilotonderzoek-vergaande-fosfaatverwijdering-uit-rwzi-effluent-met-de-biophreer-technologie>

Enhanced Efficiency Fertilisers (EEF) respond to EU green regulatory pressures

In Fertilizer Focus, ICL explain how controlled release and stabilised nitrogen fertilisers can enable farmers to maintain yield, respect nutrient input reduction obligations and obtain carbon footprint benefits. ICL's controlled release fertilisers today enclose nutrients in a hair-thickness double coating, releasing sulphur and enabling osmotic pressure controlled nitrogen release according to crop needs, so reducing losses. The coating is biodegradable and EU FPR certified. Stabilised nitrogen fertilisers use urease inhibitors to reduce volatilisation and ammonia loss to air, and nitrification inhibitors reduce conversion to nitrate and loss to water. This can improve nitrogen use efficiency, which is currently only 40 – 60% on average in Europe. Improving nitrogen use efficiency can save farmers money (fertiliser purchase costs) and maintain yields, whilst reducing nitrogen inputs to land, as is increasingly required as EU Green Deal objectives (-50% nutrient losses and -20% fertiliser use) are transposed into Member States obligations for farmers. Enhanced Efficiency Fertilisers have been demonstrated to considerably reduce CO₂ emissions (per tonne crop), a benefit which can increasingly be monetised by farmers.

"Enhanced Efficiency Fertilizers: a solution for European agriculture", Roland Clemens and Tanguy Martignon, ICL, in Fertilizer Focus January / February 2026 <https://view.argusmedia.com/Fertilizer-Focus.html>

Research

Study misleadingly claims to show links between food additives and obesity

Data from c. 900 Israeli adults shows statistical correlations between dietary intake of processed foods and of (only two) food additives to high BMI (Body Mass Index), despite energy intake being similar. One third of respondents were identified as overweight (BMI > 25). Dietary intake of different processed foods was estimated by a Food Frequency Questionnaire and food additive contents were estimated based on legal authorised maximums. Although overweight individuals consumed more processed foods, and such diets were estimated to result in higher intakes of a number of considered food additives (including polyphosphates), correlations persisted only for nitrites and artificial sweeteners (not for polyphosphates) after factoring for dietary energy intake and lifestyle factors (exercise ...). Other factors in processed foods are not taken into consideration, so it seems unclear whether any correlation even to these two food additives would remain if such factors were considered, e.g. saturated fats, trans-fats and cholesterol (all significantly higher for the overweight cohort), fibre content, macro- and micro-nutrients ...

Previous studies have confirmed links between consumption of UPF (Ultra Processed Foods) and weight gain and other negative health impacts. For example, a review for Nord Nutrition Recommendations (Juul et al. 2023) analysed 12 systematic review and 44 original research studies and concluded that evidence linking UPFs to weight gain, cardiovascular disease, type 2 diabetes and overall mortality was sufficient to support dietary recommendations to limit their consumption, noting that because of the very diverse range of UPFs further studies are needed to understand mechanisms. A second comprehensive meta-analysis (Lane et al. 2024) also concludes that UPF consumption is associated with health issues, including mortality, cancer, and mental, cardiovascular, respiratory, gastrointestinal, and metabolic conditions. These studies note that UPFs pose a wide range of dietary issues including high salt, sugar, fat, energy content, lower fibre, micronutrients and vitamins, food additives and possible contaminants from packaging and processing.

"The associations of dietary exposure to selected food additives with dietary patterns and overweight", I. Atary-Sheetryt et al., PLoS One 21(2): e0341825, <https://pmc.ncbi.nlm.nih.gov/articles/PMC12935198/>

"Ultra-processed foods – a scoping review for Nordic Nutrition Recommendations 2023", F. Juul et al., Citation: Food & Nutrition Research 2024, 68: 10616 - <http://dx.doi.org/10.29219/fnr.v68.10616>

"Ultra-processed food exposure and adverse health outcomes: umbrella review of epidemiological meta-analyses", M. Lane et al., BMJ 2024;384:e077310, <https://doi.org/10.1136/bmj-2023-077310>

Phosphorus fertiliser supply in the media

Analysis of c. 160 European media articles over 18 months 2022-2023, shows concerns raised on fertiliser import dependency in the context of the gas supply crisis impacting N fertilisers, following Russia's invasion of Ukraine. A search for media articles mentioning phosphorus/phosphate alongside issues such as food or trade found 162 relevant articles from February to August 2022 (83 in English, 79 in Swedish). The search covered only English or Swedish language editorial articles, and not social media. Themes addressed differed between Swedish and English articles, with sanctions and trade more prevalent in the English articles, whereas local production of fertilisers (e.g. green ammonia, recycled phosphorus) was more prevalent in Swedish. Import dependency (e.g. of energy, phosphorus) and prices (of fertilisers in general = N, P and K, or general prices of food, energy) were widely covered, demonstrating that phosphorus as an issue was not separate from other resource inputs. No other themes were cited in more than 20% of articles. Although the paper foregrounds "phosphorus geopolitical scarcity" in its title, its analysis shows that such aspects were not the centre of media coverage. In both Swedish and English articles which mentioned phosphorus, over half referred to nitrogen, and similarly for energy, while the global concentration of phosphate rock reserves was mentioned in around 15 articles (a little less than 20%) in each language. Extending the search through to late 2025 found "very little coverage" suggesting that media attention to phosphorus declined rapidly after the initial gas, energy and fertiliser supply and price shocks of 2022.

"Phosphorus geopolitical scarcity: Representation of 2020-2023 market shocks in the media", G. Metson et al., Elem Sci Anth, 14: 1. DOI: <https://doi.org/10.1525/elementa.2024.00035>

The environmental importance of ABP valorisation

A study shows significant impact differences between different routes for valorising chicken by-products (around 30% of chicken mass at slaughterhouse), but also variable results depending on LCA parameter choice. In all cases, the priority should be human consumption of co-products such as offal, giblets and chicken feet. LCA was used to compare valorising all such co-products in pet food, rendering (to animal feed and energy), anaerobic (methane production) or by incineration with energy recovery. Currently, around 2/3 of chicken co-products go to pet food and one third to rendering in the UK. The LCA takes into account transport, energy in processing (grinding, sterilisation), energy produced, and substituted materials for the first two scenarios (soy, fish meal, palm oil, biodiesel, as well as chicken production subject to allocation of environmental burdens between chicken meat and co-products. The LCA was carried out using different allocation methods: no burdens allocated to co-products (chicken production is considered to be operated for meat production), allocation by production price (2420 UK£/t for chicken meat vs. 34 £/t for co-products), by sale price (3911 v£/t vs 2820 £/t) or allocation by mass. Based on production price or zero burden,

the co-products have positive LCA (appear as environmentally 'beneficial') whereas based on sale price they appear as environmentally negative, or even more so based on mass allocation. This shows that LCA results depend strongly on allocation choices. The LCA results further vary depending on the choice of substituted materials. The LCA results show that the best environmental option of the four studied is to convert all co-products to pet food, and the worst is incineration (even with energy recovery). The authors note that the best option is to increase human consumption of co-products and that research should be centred on keeping the co-products in the human food supply. Although this paper does not specifically address nutrients, ESPP suggests that the conclusions can be transposed to phosphorus flows in animal by-products.

"Mitigating environmental impacts of chicken production – The role of co-product valorisation", Y. Sui et al., J. Cleaner Production 528 (2025) 146750, <https://doi.org/10.1016/j.jclepro.2025.146750>

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