Phosphorus is critical

Phosphorus is a non-renewable resource, non-substitutable for agriculture and food production and is **directly linked to global food security**. It is also important in a range of industrial and technical uses. The world's mineral phosphate resources are finite and are mainly concentrated in a few countries, so that although there is debate about their extent and extractability, the need for phosphorus stewardship will endure. Europe is 90% dependent on imports and both phosphate rock and its industrial derivative P₄ (white phosphorus) are on the EU list of 'Critical Raw Materials'.

ESPP's vision

- Every human being can choose from a variety of safe and healthy food
- Parmers have access to fertilisers, produce feed and food and get a fair price
- **Water bodies** are naturally balanced and free from algae blooms and dead zones
 - The economy is based on **circular** principles and fair incomes for everyone
- P The use of **resources** is efficient and confined within the Planetary Boundaries
- **•** Every human being has **access to sanitation** transforming waste to new resources

These phosphorus challenges offer **synergies** with the bioeconomy, food waste, nitrogen emissions, soil carbon, biogas and biofuels.

ESPP's priority challenges

- **Organic contaminants**: safety and acceptance of products recycled from organic wastes (farmers, food industry, supermarkets, consumer). Need for data and risk assessments. Information on abatement in treatments (sewage works, composting, digestion)
- Nutrient management in the agri-food chain (including distribution and supermarkets), in particular by integrating nutrient stewardship, eutrophication prevention and acceptance of recycled nutrients into food industry sustainability criteria and supply specifications.
- Dietary choices: meat and dairy in diet and diet, phosphorus footprint
- Nutrient circular economy: phosphorus recovery and recycling including upcycling to industry and recycling of organic nutrients and carbon to soil, business models for carbon and nutrient recycling enabling farmers to pass on costs
- Bioeconomy: nutrient supply to biomaterials and bioenergy production, nutrient recycling from food waste and agri-food by-products
- Sustainable livestock production: impacts of regional concentration of livestock production, animal feeds, environmental impacts (eutrophication, ammonia emissions), manure recycling
- Legal framework and standards: fertilisers, waste, chemical organic farming regulations



Platform actions underway

Networking and contacts:

- enable Members & Partners to access to expertise, experience, competence
- **dialogue** with policy makers, technical organisations, stakeholders, international organisations
- communicate proposals for collaboration and calls
- **showcase** Members' & Partners' actions, success stories and innovation

Awareness and communications:

- ESPP website www.phosphorusplatform.eu
- ESPP / SCOPE Newsletter http://www.phosphorusplatform.eu/SCOPEnewsletter and ESPP eNews,
 www.phosphorusplatform.eu/enews both emailed to 45 000 contacts worldwide and online
- Twitter professional information relay @phosphorusfacts
- dissemination of R&D projects
- participation in conferences

EU policy and regulatory www.phosphorusplatform.eu/regulatory

- New EU Fertiliser Regulation: taking recovered nutrient products into account (underway)
- **STRUBIAS**: developing fertiliser criteria for struvite, biochars, ash-based products (underway)
- Environmental policies: Urban Waste Water Treatment Directive, Water Framework Directive,
 Nitrates Directive, Emissions Ceilings Directive (ammonia), sludge contaminants
- "Processed manure" in EU Nitrates Directive
- EU / EIB Investment Fund
- **EU list of Critical Raw Materials:** phosphate rock, P4 white phosphorus
- **Organic Farming Regulation:** proposed validation of recycled P products
- **REACH** (EU chemicals regulation):
 - application of Art 2(7)d "recovered" substances/by-products
 - exemption of digestates
 - REACH registration of recycled nutrient products, REACH dossier update for struvite
- BAT BREFs (Industrial Emissions Directive): pig & poultry production
 - large combustion plants waste incineration food, drink & milk
 - proposed generic BREFs for "Resource Efficiency" manure treatment
- BEMPs: EU Eco-Management and Audit Scheme Regulation (EMAS) for "agriculture"
- EIP-AGRI "Focus Group" on recycled nutrients: conclusions www.phosphorusplatform.eu/scope124
- JRC phosphorus footprint project (underway)
- **Standards**: CEN SABE P-recycling, ISO 275, standards needs for bio circular economy
- EU R&D policy: Horizon 2020 and HorizonEurope: input to content, dissemination of calls, R&D to support EU policy definition relevant to nutrients
- Bioeconomy and Circular Economy policies: bio-refineries, rural job creation, farmers income, CAP (Common Agricultural Policy), ENRD (European Network for Rural Development), Rural Development Funds
- etc.
- National / regional policies: Germany P-recovery obligation, Switzerland P-recovery obligation, Helcom sewage sludge Recommendation, national policy objectives ...
- Pinternational: Global Partnership for Nutrient Management (GPNM, under UNEP-GPA), North America Sustainable Phosphorus Alliance (SPA) https://phosphorusalliance.org
- Inventory of phosphorus-related R&D projects and nutrient networks www.phosphorusplatform.eu/R&D



Platform membership & partnership conditions

Join the Platform to participate and be visible amongst Europe's frontrunners in sustainable phosphorus management

Annual membership / partnership fees (ex VAT):

> Member States, Nutrient Platforms = 10 000 €

Companies = 6 000 €

Regional / local authorities = 4 000 €

> SMEs = 2 000 €

➤ Knowledge institutes, NGOs, R&D projects = 2 000 €

Platform **Members** are the legal members of the non-profit association ESPP and sign the statutes. The legal members constitute the Platform's General Assembly and their representatives constitute the Board.

Platform **Partners** pay the same fee, have access to the same information, participate in the Platform's meetings (with a consultative voice) and in networks and activities. Only the legal members vote in formal decisions, but in practice actions and proposals are usually defined by consensus between all concerned members and partners.



European Sustainable Phosphorus Platform www.phosphorusplatform.eu @phosphorusfacts

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ESPP a neutral coalition for action

ESPP is a neutral, non-profit organisation, funded by its members, which brings together industry, knowledge institutes and public establishments, alongside national nutrient platforms, to promote and implement phosphorus sustainability in Europe:

- Dialogue & networking of expertise and experience
- **Collaboration** of industry, R&D, public authorities, stakeholders for sustainable phosphorus management in Europe
- Awareness building
- Access to policy & regulatory developments
- Dissemination of innovation, business cases, value chain

Because ESPP brings together a range of different industries and stakeholders, we can facilitate development of consensus positions or joint actions and dialogue with policy makers. **ESPP is neutral**, within our overall objective of promoting phosphorus sustainability, and members continue to take their own sectoral actions outside ESPP.

Platform action sectors

- Waste water and waste treatment
- Pertilisers, agriculture, animal feeds, food and beverages
- Recycling technologies, sustainable chemicals, composts, digestates, manure management
- R&D and innovation
- Dialogue with farmers' organisations, organic farming, environmental and consumer NGOs

ESPP members and partners

