



# Industry innovation and phosphorus sustainability in FP7 & H2020

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**Phosphorus stewardship in industrial applications  
Brussels, 1 December 2016**



## Circular approaches to phosphorus: from research to deployment





# ValueFromUrine

- efficient recovery of phosphorus and nitrogen from urine in a way that requires a limited investment of energy
- Proposed technology treating urine before it mixes with the rest of WW
- Recovery driven by a bio-electrochemical process
- 7 partners coordinated by Wetsus, NL

<http://www.valuefromurine.eu/>

**ValuefromUrine**



# SMART-Plant

- Scale-up of material recovery techniques
- 9 pilot systems to be applied in the real environment of 5 municipal WWTs
- Biopolymers, cellulose, fertilisers and intermediates to be recovered and processed for commercialisation
- From 01/06/2016 for 48 months
- Verona University & 24 partners
- [www.smart-plant.eu](http://www.smart-plant.eu)





## **CIRC-2a-2016 Demonstrating the potential of efficient nutrient recovery from water**

- Recovery technologies implemented in any water sector
- Nutrient recovery as well as recycling to be covered
- 2 projects selected for funding
- GA to be signed by 8 May 2017



## **CIRC-1a-2016: Design for circular value and supply chains**

- Large-scale demonstrations testing and showcasing circular economy solutions
- 8 projects selected for funding, of which at least one highly relevant for nutrient stewardship
- GA to be signed by 8 May 2017



## Societal Challenge 5 Call 'Greening the economy'.

### Raw materials

SC5-13-2017 New solutions for sustainable production of raw materials

- **New sensitive exploration technologies (1 RIA, €10m)**

SC5-14-2017 Raw materials Innovation actions (2 IA, €56m)

- **Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways**
- **Sustainable metallurgical processes**

SC5-15-2017 Raw materials policy support actions (5 CSAs, €10m for all)

- **Good practice in waste collection systems**
- **Optimising collection of raw materials data in Member States**
- **Linking land use planning policies to national mineral policies**
- **EU network of mining and metallurgy regions**
- **EU network of regions on sustainable wood mobilisation (wood supply)**

SC5-16-2017 Raw materials international co-operation (1 CSA)

- **International network of raw materials training centres**

### Deadlines for Topics in 2017

- **7 Mar 2017** (RIA, CSA, and First stage of IA)
- **5 Sep 2017** (Second stage of IA)

## SC5-14 b) Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways [2017]

- Demonstrate new systems with relevant processing and refining technologies for better recovery of minerals and metals from low grade and/or complex ores, industrial or mining wastes at increased efficiency in terms of better yield and process selectivity.
- The importance of the targeted raw materials and their sources for the EU has to be demonstrated in the proposal.
- Indicative size of proposals: EUR 8-13 million
- Expected TRL: 6-8

*IA*  
*70%*



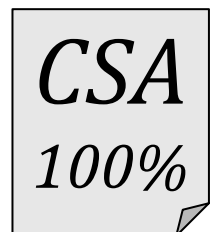


## SC5-15 c) Optimising collection of raw materials data in Member States [2017]

Proposals should cover all the following points:

- **map and analyse the current situation** of collection of data and data sources in all Member States;
- provide **recommendations for improvement** of data sets and for EU level harmonization;
- **demonstrate the applicability of recommendations** on a number of improved data sets at Member States level. ...Data sets related to secondary mineral raw materials should build on raw materials flows at Member state level (Materials Systems Analysis) and be presented in a form of Sankey diagrams.
- involve all **mandated key players** for primary and secondary mineral raw materials in Member States.

Indicative size of proposals: EUR 1.5 million,  
**Max one proposal** can be funded





# SME Instrument call: SC5 topic

## SMEinst-12-2016-2017: Boosting the potential of small businesses in the areas and priorities of SC 5

- Commercialising innovative solutions for green growth
- Only SMEs allowed to participate and to apply for funding and support
- Minimum condition: participation of one SME (based in the EU or associated countries)
- 70% co-funding
- Example: **PHOSave** (*Innovative solution for phosphate recovery from exhausted extinguishing powders*)



# HORIZON 2020

**Thank you  
for your attention!**

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