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Platirus is a project funded by the European Commission
This project has received funding from the European Union's Horizon 2020 Research and Innovation program under Grant Agreement n° 730224

Platirus

PGMs Recovery using Secondary Raw Materials

www.platirus.eu

The Project

The Platinum Group Metals (PGMs) comprise a group of 6 of the least abundant Earth's elements and are classified by the EC as critical raw materials. Platinum is the most commercially important of all the PGMs, having the largest range of applications from jewellery to automotive to electronics. Europe has the highest demand of PGMs in the world, with an annual demand of 40 tonnes, worth 1137 MEUR.

The supply of PGMs is currently ensured mostly by primary sources (72%) and the overall supplied PGMs cannot meet the global demand. The current deman/supply deficit of about 20 tonnes is also forecasted to grow in the coming years due to the automotive emission legislations and the current irreplaceability of PGMs in autocatalysts. Moreover, the major suppliers are displaced from the regions with higher demand and can't be considered stable and reliable for political reasons.

Objectives

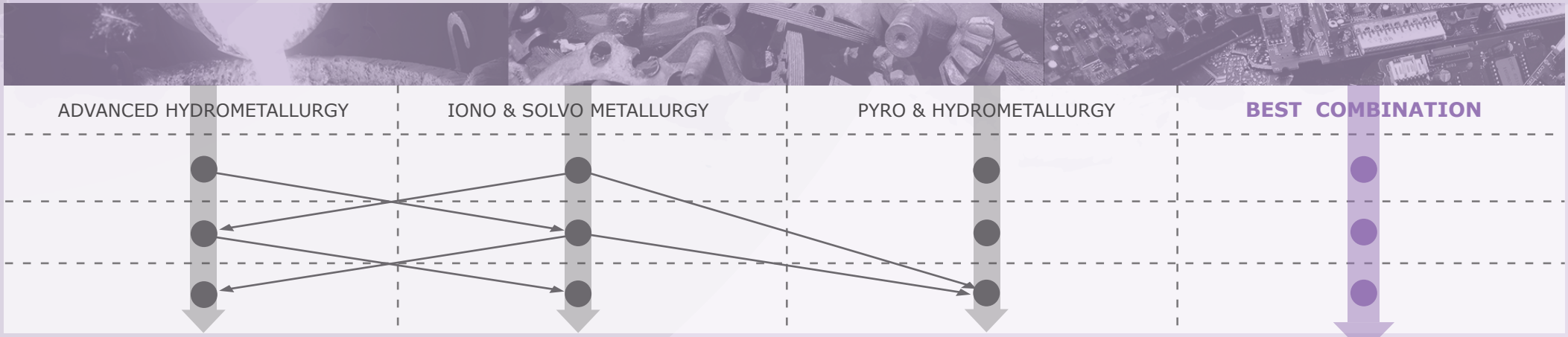
Key target of the PLATIRUS project is to realise a significant contribution to bridge the supply gap of PGMs in Europe, by fostering the development of novel or improved secondary materials to PGM recovery supply chains from autocatalysts, mining and electronic wastes.The PLATIRUS project tackles the challenge of boosting the availability and ensuring a stable supply of PGMs in Europe by:

- Upscaling to industrially relevant levels of a novel cost-efficient and miniaturised PGMs recovery and raw material production process;
- Selecting the best (combination of) recovery technologies and developing a PLATIRUS recovery process and Blueprint Process Design for the final upscaling step, before market introduction;
- Preparing and stimulating market introduction.

Impact

The recycling of critical raw materials such as PGMs from waste is recognised by the European Innovation Partnership on raw materials as an essential pillar to mitigate the supply risk. It is therefore of uttermost importance for Europe's competitiveness, as well as resource efficiency, to secure the supply of PGM materials and to reduce dependency from global supply chains. The novel PLATIRUS process will represent a step forward in terms of sustainability and environmental footprint, while offering significantly enhanced flexibility and selectivity.

The PLATIRUS project's final target is to fill the supply-demand gap of PGMs, estimated to currently be around 40 tonnes/year for an equivalent current value of 1200 MEUR/year.



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