



## Boosting the research and development of new solutions for materials replacing the Platinum Group Metals (PGM)

NICKEFFECT, a new project co-funded by the European Commission's Horizon Europe programme, aims to develop novel ferromagnetic Ni-based coating materials to replace the scarce and costly Platinum and ensure high efficiency in key applications.

Running from June 2022 until June 2026, the NICKEFFECT project is led by a consortium that is a multidisciplinary team of 12 partners from 7 different EU and HEU associated countries (Belgium, France, Germany, Greece, Ireland, Spain, and the United Kingdom). It covers stakeholders of the whole project value chain: scientific and technology developers, technology providers, end-users, as well as transversal partners.



### What are the main objectives of the project?

NICKEFFECT will develop and bring to the market new solutions and tools for materials and process modelling, as well as for decision-making criteria to support the European industry.



Among several impacts the project will create, its main objectives are to:

- Synthesise ferromagnetic coating materials to replace Platinum as raw material;
- Develop measures to ensure that the materials are affordable, durable and with increased corrosion resistance for the different working environments;
- Successfully upscale production process in pilot plant to coat real scale components;
- Ensure a safe and sustainable by-design approach and define pathways for the recovery, recyclability, purification and re-use of materials at the end of the products life;
- Develop a decision support tool to facilitate the adoption of the safe and sustainable criteria when designing and producing metallic coatings free of PGMs;

NICKEFFECT consortium is made of the following partners: CIDETEC, Universidad Autònoma de Barcelona, Vrije Universiteit Brussel, Elsyca, IRES, ANSYS, Matgenix, CEA, Advanced Energy, Singulus Technologies, F6S and Asociación Española de Normalización.

Follow NICKEFFECT's journey and stay up to date with the new developments and upcoming results.

Visit the project website: [www.nickeffect.eu](http://www.nickeffect.eu)

Join NICKEFFECT's community on Twitter ([@nickeffect\\_eu](https://twitter.com/nickeffect_eu)) & on LinkedIn ([@nickeffect-eu](https://www.linkedin.com/company/nickeffect-eu))



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