Open positions at the Group of Permanente Magnets and Applications @ IMDEA Nanociencia (Contact: Alberto Bollero – alberto.bollero@imdea.org):

Topic: Recycling of Permanent Magnets. 1 Postdoctoral and 1 PhD positions.
Project: **EU Horizon 2020 "Product Passport through Twinning of Circular Value Chains"**
Duration: 3 years
A new EU project will begin in Nov'2022, joining the effort of 20 partners (13 companies) from 9 European countries, to enable a more sustainable and green transition in Europe through a change from a linear to a circular production model. IMDEA Nanociencia will work on the recycling of permanent magnets from e-waste (including electric motors) under a digital transformation framework (including AI tools) to ease supply chain transparency and data provision on the circularity of materials and products. The activities will include both rare-earth and non-rare earth permanent magnets.

Topic: Development of High-Performance Rare Earth-Free Permanent Magnets. 1 Postdoctoral and 1 PhD positions
Project: **BOSCH (Germany) – IMDEA Nano**
Duration: 3 years
This challenging project is funded by BOSCH-Germany and aims at the development of a new generation of high-performance permanent magnets to substitute the nowadays most-used rare earth-based magnets (Nd-Fe-B) in energy and transport applications. Basic research (combining physics, materials science, chemistry and engineering), based on disruptive ideas and approaches, together with innovative technological development, will contribute to achieve a sustainable development in Europe.

The selected candidates will work in a dynamic and enthusiastic group of 16 young researchers leaded by Alberto Bollero at IMDEA Nanociencia and will have the opportunity of establishing strong synergies with activities of the group in on-going EU-funded projects (H2020, FET-OPEN, M-ERA.Net and EIT) in the topic of permanent magnets, sustainability and emerging technologies.