

Industry Leaders from Rio de Janeiro Explore Cutting-Edge Responsible Technologies at INL

IMAGE



Braga, Portugal – July 1, 2025 — The International Iberian Nanotechnology Laboratory (INL) welcomed a distinguished delegation of industry representatives from Rio de Janeiro, Brazil, for a high-level visit organized by FIRJAN (Federation of Industries of the State of Rio de Janeiro) in collaboration with the Faculty of Engineering of the University of Porto (FEUP).

The visit, part of the FORGING project's outreach activities, offered the Brazilian delegation a unique opportunity to explore INL's pioneering work in socially and environmentally responsible technologies. The event began with a warm welcome from INL Director-General Prof. Ado Jório, followed by an overview of INL's innovation ecosystem and ways to collaborate with INL presented by Francisco Guimarães.

Brigita Jurisic introduced the FORGING project's mission to foster responsible research and innovation practice in line with the European Commission's vision for Industry 5.0., setting the stage for a series of presentations showcasing INL's research. Highlights included:

- **Spintronics and Predictive Maintenance** – Ricardo Ferreira demonstrated how advanced sensors empowered with AI can enhance industrial efficiency and sustainability.
- **Unconventional Nanomaterials for Sustainability** – Juliana Sousa presented novel self-healing coatings designed to preserve large energy infrastructures and reduce negative environmental and societal impact through provision of corrosion protection.
- **Organ-on-a-Chip Systems** – Ana Ribeiro showcased organ-on-a-chip systems that enable the safety assessment of nanomaterials, reducing the need for animal testing.

The delegation also toured INL's state-of-the-art cleanroom facilities and the Technology Engineering Group, gaining insight into the laboratory's research capabilities. The visit concluded with a networking cocktail, fostering dialogue and potential collaborations between Portuguese and Brazilian stakeholders.

This initiative underscores the importance of international cooperation in advancing responsible innovation.

About Industry 5.0

Industry 5.0 goes beyond efficiency and productivity to integrate social and environmental priorities into industrial development. It emphasizes human-centric design, sustainability, and resilience—principles that are central to INL's mission.

[Industry 5.0 - European Commission](#)

About INL

The International Iberian Nanotechnology Laboratory is a leading research institution dedicated to interdisciplinary research in nanoscience and nanotechnology, fostering innovation for societal benefit.

www.inl.int

About FIRJAN

FIRJAN represents the interests of the industrial sector in Rio de Janeiro, promoting innovation, competitiveness, and sustainable development.

[Sistema Firjan | Firjan](#)

About FEUP

The Faculty of Engineering of the University of Porto is one of Portugal's top engineering schools, known for its strong industry partnerships and research excellence.

[Faculdade de Engenharia](#)

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