RISEnergy

Discovering new building blocks for a low-carbon future

Connecting researchers and infrastructure
for advanced energy materials innovation
in Europe

Advanced materials are essential for the clean energy transition. From next-generation batteries to high-efficiency solar panels, **progress relies on discovering, testing, and deploying new materials**. As John Kerry noted, **“50% of the reductions we have to make by 2050 or 2045 are going to come from technologies we do not yet have”** – and those technologies will depend on materials with new and specific characteristics. At the same time, improving today’s technologies often requires refining existing materials to make them more efficient, affordable, and sustainable.

From molecules to applications

Powering the energy transition with advanced materials

Opportunities

Advanced materials open the door to cleaner fuels, batteries with higher storage capacity, and more efficient renewable power. They enable the creation of **new technologies** while **improving the performance of existing ones.**

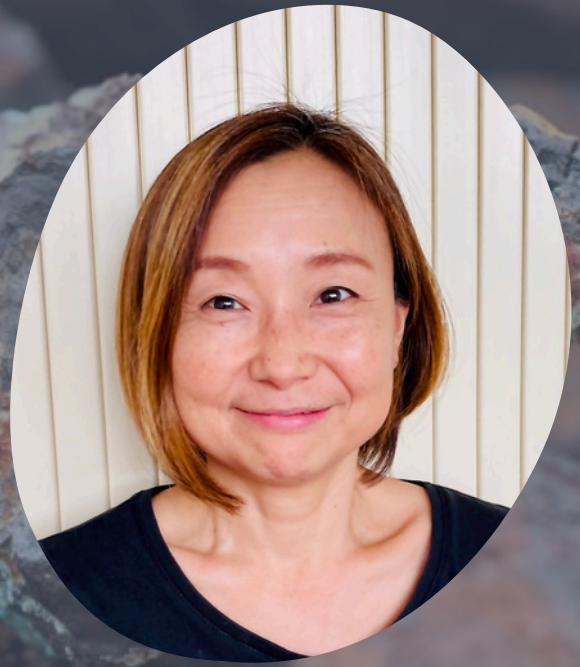
Challenges

Materials innovation often slows between laboratory discovery and industrial deployment because the performance achieved in the lab is difficult to replicate in real devices. **The key challenge is to accelerate successful integration into systems.**

RISEnergy

RISEnergy supports materials research by giving researchers **access to cutting-edge facilities**. From testing the fundamental properties of new materials to integrating them into devices and validating their performance in energy systems, **the project connects the whole innovation chain** and ensure results are shared, **helping discoveries move faster from lab to real-world technologies.**

Clean energy innovation depends on both improving today's technologies and developing new ones that do not yet exist. RISEnergy makes this possible by **uniting over 50 research platforms** with an **open approach** that ensures results are shared and reused. This collaboration gives researchers and industry the tools they need to **accelerate the full innovation chain,** from advanced materials to real technologies.



Sawako Nakamae
CEA Research Fellow,
Materials Science Area Leader

RISEnergy

Research Infrastructure Services for Renewable Energy

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Funded by
the European Union