

# EMIRI

ENERGY MATERIALS INDUSTRIAL RESEARCH INITIATIVE

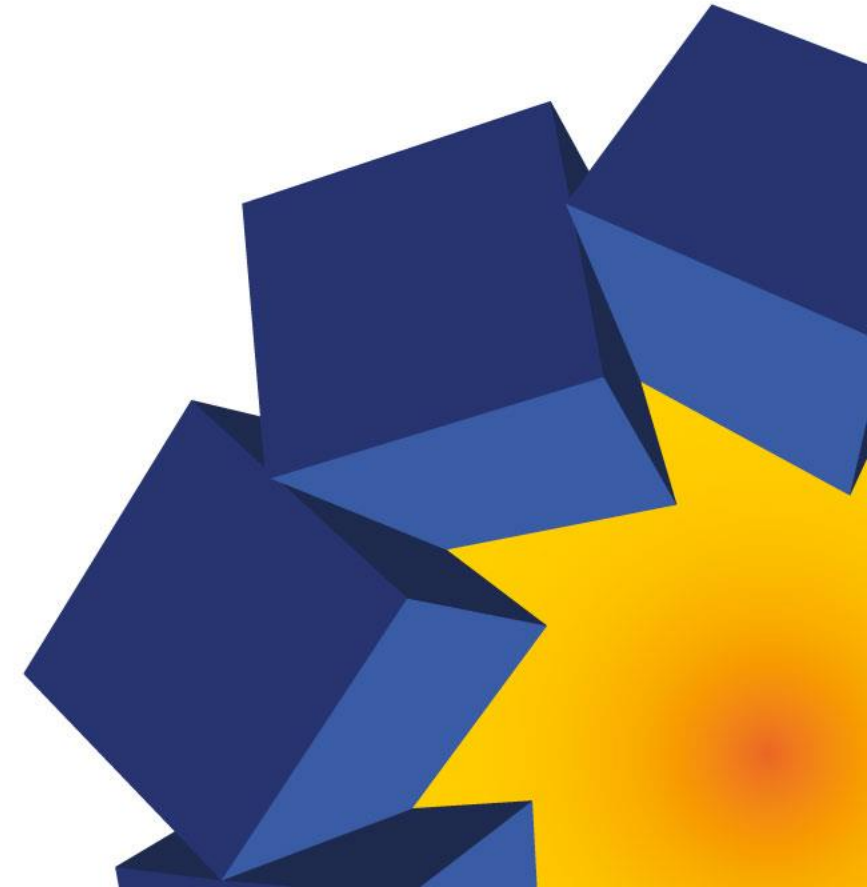
## EMIRI TechTalk

**R&I needs on Advanced Materials  
to unlock the hydrogen revolution**

*Key take-aways*

November 5, 2021

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## Key take-aways

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- Expectations from R&I (DG-RTD)
  - improving **technology**
  - increasing **efficiency** } decreasing **cost**
  - enhancing **sustainability** – circularity by design
  - preparing for deployment through **demonstration** in industrial environment
- **Innovation in materials** is fully part of the success of the Clean Hydrogen JU
- Impressive **skills and expertise** on solutions for a broad range of technologies available in Europe!
- And **on-going R&I efforts...**

## *Further challenges and gaps*

- Durability / Stability / Corrosion resistance
- PGM catalysts / Critical materials
- Costs / Costs / Costs...
- Fast and affordable manufacturing techniques / Easily-processible materials
- Sustainability / Circularity / By-design approach (SSbD)
- ...

## Next steps

- *By November 12*  
Fill in additional challenges/solutions in the miro boards
  - Clean hydrogen production
  - fuel cells
  - Storage, transport and distribution
- *~By end of November*  
Consolidated input to be shared with the TechTalk participants and EMIRI Focus Group for feedback
- *~By mid-December*  
R&I Policy recommendations issued