



EuroNanoForum 2019 - Bucharest – June 14, 2019

EMIRI WORKSHOP, with the support of eseia

**Shaping the Future Advanced Materials
for Energy Transition and Future Mobility**

*How to impact the upcoming co-construction discussions on the strategic planning of Horizon Europe?
Why and how to be involved in R&I EU-funded projects?*

Agenda



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- **11:30 - Philippe JACQUES, EMIRI** - *Opening words and EMIRI activities*
 - **11:50 - Marcos Ierides, BAX & Company** - *How to use science and technology to address large scale societal challenges – from defining a cross value-chain technology roadmap, to planning concrete R&I activities and attracting financing to realise them*
 - **12h10 - Barbara Tišler, National Institute Of Chemistry, Slovenia** - *The benefits for the EU R&I Ecosystem for National Institute of Chemistry, Slovenia*
 - **12h30 - Brigitte Hasewend, eseia Director** - *Smart Energy Materials: The Sustainability Challenge*
 - **12h50 - Assoc.Prof. Dr. Norbert Enzinger, Institute of Materials Science, Graz University of Technology** - *Additive Manufacturing as a contribution to (economic successful and) sustainable products*
 - **13h10 - Em. Univ.-Prof. Dr Franz Stelzer, Graz University of Technology** - *New Energy Materials: An Interdisciplinary Challenge for Research and Innovation*

EMIRI promotes, facilitates and supports Research and Innovation activities in Europe on advanced materials for sustainable energy and mobility applications



INDUSTRIAL LEADERSHIP



supports a competitive European Industry developing solutions based on advanced materials innovations

STRATEGIC FIT



shapes and implements EU policies for Advanced Materials Research and Innovation

INNOVATION ECOSYSTEMS



collaborates with public institutions for the implementation of FPs on research & innovation, demonstration and pilots

NETWORK



acts as catalyst to share knowledge, create a network and facilitate the alignment of the key priorities

FOCUS



facilitates the co-construction between stakeholders of technology roadmaps for areas in which Advanced Materials make the difference

SINCE 2012



Building on 7+ years of experience and trust

Key focus areas – Clean Energy and Mobility Technologies

Where Advanced Materials make the difference



RENEWABLE ENERGY HARVESTING



- Photovoltaics
- Building integrated photovoltaics
- Concentrated Solar Power
- Wind Power

BATTERY ENERGY STORAGE



- Batteries for Electric Vehicles
- Batteries for stationary applications

HYDROGEN FOR MOBILITY



- Fuel Cells
 - Low temp.. PEM
 - high temp. PEM
- Hydrogen storage tanks
- On-board H2 generation

CHEMICAL ENERGY STORAGE AND CCU



- Hydrogen generation by electrolysis (PEM; SO)
- Electricity generation from H2
- Carbon Capture and purification
- Catalytic conversion of CO2 into fuels, chemicals, and e-fuels

ENERGY EFFICIENCY

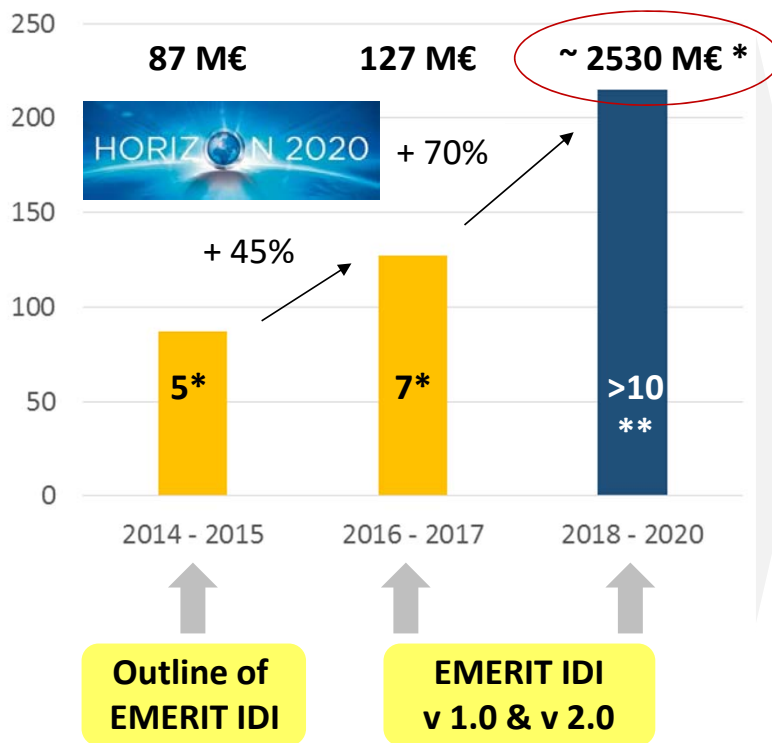


- Light weighting (transport)
- Insulation of buildings
- Thermal energy storage
- Lighting
- Glazing

EMIRI actions contributes to supporting evolution in EU R&I funding on Advanced Materials for clean energy and clean mobility techs



EU NMBP funding on Advanced Materials for Energy in Horizon 2020



NMBP WP 2018-2020 (draft)

Topic	Type of action	Budget (Meuro)
Photocatalytic synthesis	RIA	20
Materials for future highly performant electrified vehicle batteries	RIA	25
Strengthening EU materials technologies for non-automotive battery storage	IA	25
Materials for non-battery based energy storage	RIA	25
Materials for offshore energy	IA	20
Advanced materials for innovative multilayers for durable photovoltaics	IA	20
Integration of energy smart materials in non-residential buildings	IA	25
Upscaling of nano-enabled lightweight multifunctional materials and components	IA	13
Upscaling of nano-enabled surfaces and membranes	IA	13
Upscaling of functional materials for building envelopes	IA	20
Total (10 calls)		205

* Based on latest estimates

EMIRI works for the future of Advanced Materials for a decarbonised economy in Europe



EMIRI is an Industry Community coming together ...



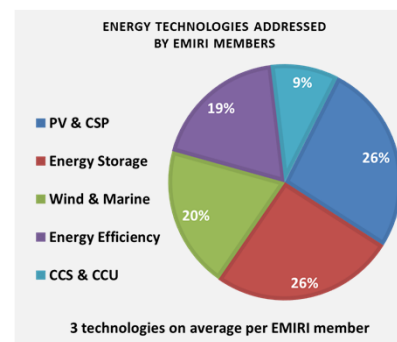
Supported by Research & Technology Organizations



With key Associations bringing in their expertise



Spanning Innovation & Manufacturing



- Presence in 19 EU countries
- Over 80 innovation centers
- Over 50 manufacturing sites