



# Establishing Industrial Leadership of Europe in Advanced Materials for Low Carbon Energy

## The case for a European Innovation Pillar



**E**nergy is a priority for Europe. President Juncker wants an Energy Union supporting the SET Plan (Strategic Energy Technologies) targets of secure, affordable and sustainable energy. The low carbon energy technologies needed to meet these goals all rely on the Key Enabling Technology of Advanced Materials (non-ferrous metals, steel, glass, plastics ...) and without innovation, it will be impossible to increase performance, reduce cost and extend lifetime of windmills, solar modules, batteries, electrolysers, building components ...

About 5% of Advanced Materials produced today are used in low carbon energy technologies and these markets are developing fast. This is an important opportunity for Europe-based industry of Advanced Materials. EMIRI (the Energy Materials Industrial Research Initiative) estimates the sector at 30 billion euro of revenues and over 100.000 direct jobs. Every additional billion euro of revenues yields nearly 100 million euro of investment and more than 4.000 direct jobs in manufacturing and R&D.

If the EU implements policies driving innovation, manufacturing and market development of low carbon energy technologies, the Europe-based industry of Advanced Materials can develop strong business positions. By 2025, annual revenues of the sector could reach past 40 billion euro, generating 65.000 direct jobs including 3.000 in R&D (and 4 times indirect jobs) and leading to an additional cumulated investment of 15 billion euro.

Europe must seize the opportunity to establish industrial leadership in Advanced Materials or it will be overcome by global competition. It is evident that capacity for production of low carbon energy is already developing outside of Europe, and the manufacturing of the necessary devices, components and Advanced Materials is moving closer to end-markets. Innovation centers are also following the trend with some delay. Dependency of Europe on imported energy resources (one billion euro spent daily) might become replaced by dependency on imported low carbon energy technologies.

Regarding innovation in Advanced Materials for low carbon energy, EMIRI calls for a European Innovation Pillar based on a strong public private partnership, aligned with the priorities of the SET Plan and industry orientations. Covering Advanced Materials for energy performance in buildings, for competitive renewable energy, for energy system integration and for decarbonisation, the pillar will bridge the gap between laboratory and market, reduce innovation risks and accelerate innovation to meet better and faster the needs of the growing market of low carbon energy technologies. Society and Industry will benefit from reinforced presence in Europe of a competitive industry safeguarding investments, generating growth and employment, and creating strong innovation ecosystems.

*EMIRI represents more than 60 organisations (industry, research, associations) active in Advanced Materials for low carbon energy. The association contributes to industrial leadership of developers and producers of Advanced Materials through helping shape an appropriate innovation and manufacturing policy framework at European level. In frame of Horizon 2020, EMIRI collaborates with European Commission to develop the Innovation Pillar on Advanced Materials for low carbon energy.*

For more information, visit [www.emiri.eu](http://www.emiri.eu)

