

23-26 OCTOBER 2017

# INNOVATION IN ACTION

EUROPEAN PARLIAMENT  
STRASBOURG

Meet the EU's research and innovation public-private partnerships



FUEL CELLS AND HYDROGEN  
JOINT UNDERTAKING





## MEET THE EU'S RESEARCH AND INNOVATION PUBLIC-PRIVATE PARTNERSHIPS



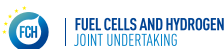
Bio-based Industries Joint Undertaking is a partnership between the EU and the Bio-based Industries Consortium and is about connecting key sectors, creating new value chains and producing innovative bio-based products to develop sustainable bio-based industries in Europe.



Clean Sky develops innovative technologies to reduce CO<sub>2</sub>, gas emissions and noise levels produced by aircraft by bringing together the aeronautics industry, SMEs, research centres and academia for the best innovative results.



A tripartite (EU/Industry Associations/Participating States) funding programme supporting world class Electronic Components and Systems, enabling Smart Solutions in key sectors such as mobility, health, environment, energy, digital society and overall EU competitive manufacturing.



Fuel cells and hydrogen offer solutions for decarbonisation of transport, energy storage and increasing the share of renewables in our energy systems. The FCH JU works at accelerating their widespread market through a unique productive alliance between the European Commission, Industry and Research partners.



The Innovative Medicines Initiative brings together universities, pharmaceutical companies, SMEs, patients and regulators to tackle some of the biggest challenges in medicines development. This collaborative, open innovation approach has proven successful, and IMI project results are helping to advance the development of urgently-needed new treatments in areas such as Alzheimer's disease, antimicrobial resistance, cancer, diabetes, and Ebola.



The SESAR Joint Undertaking was established in 2007 as a public-private partnership to modernise European air traffic management, aviation's underlying infrastructure. It does so by pooling the knowledge and resources of the entire ATM community in order to define, research, develop and validate innovative technological and operational solutions for deployment across Europe.



Delivering smart and sustainable growth by integrating cutting edge research and innovation solutions to European Railways for passengers and freight. Sustaining the competitiveness of the European rail industry to meet future mobility needs of EU citizens, connecting European Regions.

Europe needs world class research and innovation to maintain the quality of life of its citizens, and to ensure sustainable economic growth and job creation.

As European public-private partnerships (PPPs), the Joint Undertakings (JUs) were set up to drive innovation in key industrial sectors, namely aviation, railway, electronic components & systems, health, fuel cells and hydrogen for transport & energy solutions, and bio-based products and materials.

JUs are mission-oriented organisations addressing major global challenges. By mobilising actors and investors across sectors, disciplines and borders, JUs are able to create new innovation ecosystems and work at the scale needed to deliver transformative breakthroughs. JUs do this by combining excellent science with a collaborative, open innovation approach that brings together partners and stakeholders from industry, SMEs, universities, research centres, civil society etc.

Since the launch of the first JUs in 2007-2008, JUs have more than demonstrated their ability to deliver concrete results that are both scientifically excellent and have practical applications in areas that are vital for the European Union. Deployment of these results is already underway across Europe, offering benefits to citizens and businesses alike.

JUs leverage significant investments from both public and private sectors. In practice, this means that ~ €7 billion of EU funding generates more than €17 billion in R&I activities. JUs stimulate further growth in Europe's private sector allowing for new jobs creation and boosting competitiveness.

BBI, Clean Sky, ECSEL, FCH, IMI, S2R and SESAR JUs are organising a joint exhibition at the European Parliament with the aim of showing the state of play and results of their programmes to date.

### **OPENING OF THE EXHIBITION**

The 7 JUs are pleased to invite all MEPs for the official opening of the exhibition at **Espace Emilio Colombo** on the **24th of October at 18:30**. We are proud to present our results and would like to share our ideas with you.



[WWW.BBI-EUROPE.EU](http://WWW.BBI-EUROPE.EU)



The Bio-based Industries Joint Undertaking is a €3.7 billion public-private partnership between the EU and the Bio-based Industries Consortium. The BBI JU is about connecting key sectors, creating new value chains and producing innovative bio-based products to create a new bio-based community and economy.

BBI JU aims to de-risk investments for private research and innovation, structuring the sector to allow it to reach critical mass in a focused and coherent way. This will enable long-term stability and predictability for the sector. BBI JU acts as a catalyst to develop sustainable bio-based industries in Europe.



[WWW.CLEANSKY.EU](http://WWW.CLEANSKY.EU)

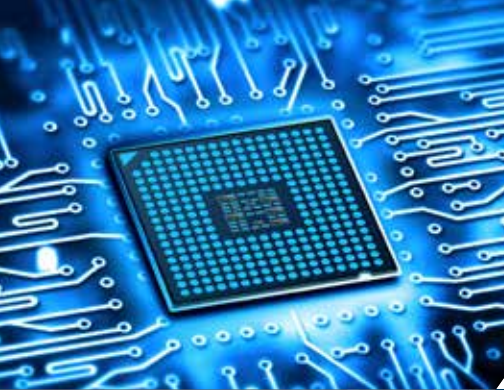


Clean Sky, part of the EU's Horizon 2020 programme, develops innovative technologies for more aerodynamic wings, lighter and more efficient engines, smarter systems, new aircraft configurations, and a more sustainable aircraft lifecycle.

The purpose of the programme is to reduce CO<sub>2</sub>, gas emissions and noise levels produced by aircraft. Bringing together the aeronautics industry, SMEs, research centres and academia for the best innovative results, Clean Sky is strengthening European aero-industry collaboration, global leadership and competitiveness.

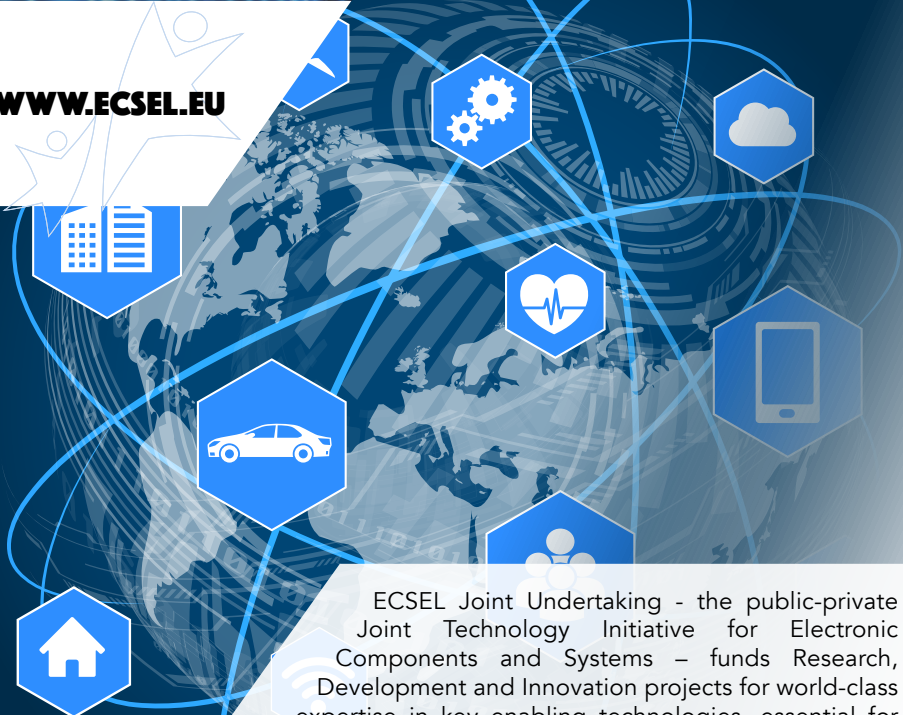






**ECSEL JU**

**WWW.ECSEL.EU**



ECSEL Joint Undertaking - the public-private Joint Technology Initiative for Electronic Components and Systems – funds Research, Development and Innovation projects for world-class expertise in key enabling technologies, essential for competitive leadership in the era of the digital economy.

Through ECSEL JU, European industry and SMEs, and Research and Technology Organisations are supported and partly co-financed by 29 ECSEL Participating States and the European Union.



Aeneas





**[WWW.FCH.EUROPA.EU](http://WWW.FCH.EUROPA.EU)**



The Fuel Cells and Hydrogen Joint Undertaking is a unique public-private partnership supporting R&I activities in Europe. Fuel cells and hydrogen technologies decrease harmful emissions in transport and energy sectors while reducing energy dependence.

Since its foundation in 2008, the FCH JU is working at bringing the great benefits of FCH technologies to European citizens, fostering market introduction thanks to a productive partnership.



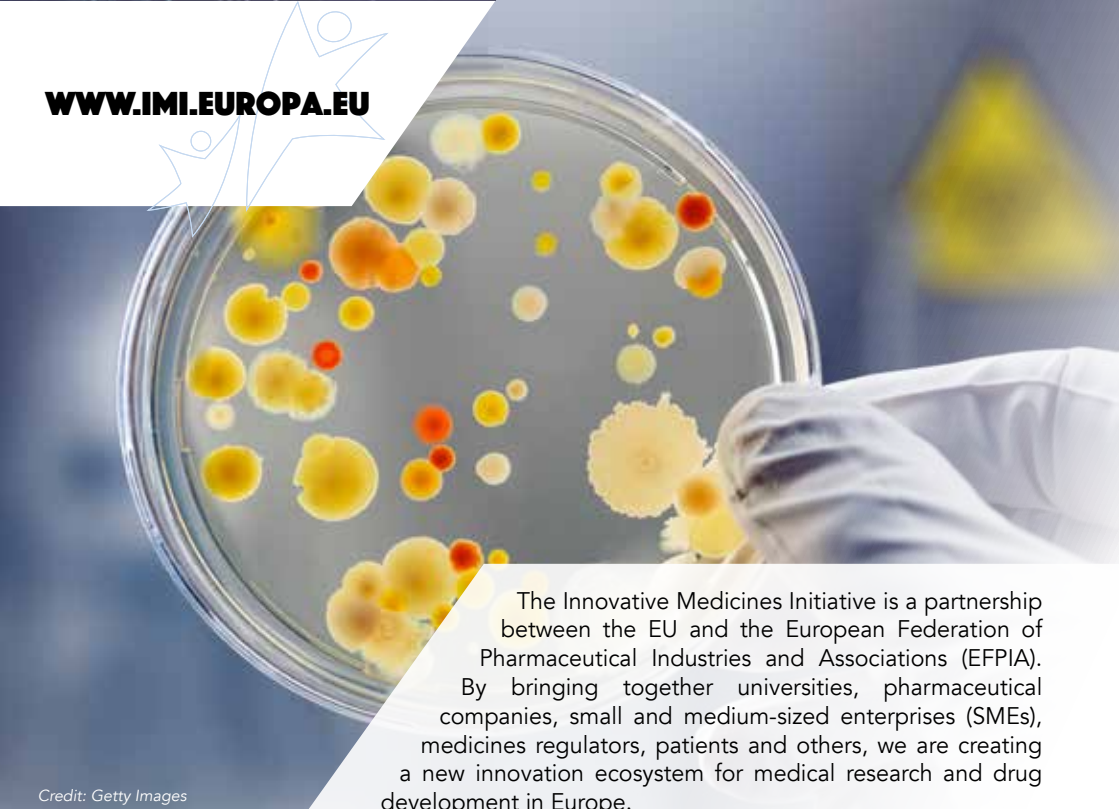


Credit: Shutterstock



innovative  
medicines  
initiative

**WWW.IMI.EUROPA.EU**



Credit: Getty Images

The Innovative Medicines Initiative is a partnership between the EU and the European Federation of Pharmaceutical Industries and Associations (EFPIA). By bringing together universities, pharmaceutical companies, small and medium-sized enterprises (SMEs), medicines regulators, patients and others, we are creating a new innovation ecosystem for medical research and drug development in Europe.

IMI projects tackle some of the most complex challenges in medicines development. Our collaborative, open innovation approach has proven successful, and IMI projects are delivering results that are helping to advance the development of urgently-needed new treatments in areas such as Alzheimer's disease, antimicrobial resistance, cancer, diabetes, and Ebola.

At a time when research budgets are being cut, every euro invested in IMI by European taxpayers leverages an additional euro from EFPIA companies and IMI Associated Partners.








**SESAR**  
JOINT UNDERTAKING



**WWW.SESARJU.EU**



As the technological pillar of the Single European Sky initiative and a key enabler of the EU Aviation Strategy, SESAR aims to modernise and harmonise air traffic management in Europe. The SESAR Joint Undertaking was established in 2007 as a public-private partnership to support this endeavour. It does so by pooling the knowledge and resources of the entire ATM community in order to define, research, develop and validate innovative technological and operational solutions.

The SESAR JU is also responsible for the execution of the European ATM Master Plan which defines the EU priorities for R&D and implementation. Founded by the European Union and Eurocontrol, the SESAR JU has 19 members, who together with their partners and affiliate associations represent over 100 companies working in Europe and beyond. The SESAR JU also works closely with staff associations, regulators, airport operators and the scientific community.





[WWW.SHIFT2RAIL.ORG](http://WWW.SHIFT2RAIL.ORG)



Shift2Rail Joint Undertaking contributes to smart and sustainable growth by developing innovative solutions and technologies to create the railway system of the future, acting as the backbone of EU mobility.

S2R JU addresses evolving needs of EU citizens, and target life-cycle cost and efficiency of rail systems to bring about the most high-performing, time driven, digital and competitive passenger & freight transport mode for Europe. The R&I Programme focuses on demonstration activities and dissemination of relevant results for market uptake, promoting the competitiveness of the European rail industry while creating a multiplier effect of EU funds invested in R&I.





The Joint Undertakings, as European public-private partnerships (PPPs), were set up to drive innovation in key industrial sectors and tackle urgent societal challenges with a quick and close-to-market approach.

JU s have been demonstrating their ability to deliver results that are both scientifically excellent and have practical applications in areas that are vital to Europe's competitiveness.

Currently, EU funding for the JUs comes from the EU's Research and Innovation Programme, Horizon 2020, for the period of 2014-2020. Industrial partners and, where relevant, national authorities must match at least the EU funding. In practice, this means that ~ €7 billion of EU funding leverages more than €17 billion in R&I activities.

This exhibition showcases the following JUs:

- **BIO-BASED INDUSTRIES (BBI)** – bio-based products and materials;
- **CLEAN SKY** – research for greener aviation;
- **ELECTRONIC COMPONENTS AND SYSTEMS FOR EUROPEAN LEADERSHIP (ECSEL)** - smart solutions in mobility, health, environment, energy, digital society and overall EU competitive manufacturing;
- **FUEL CELLS AND HYDROGEN (FCH)** – fuel cells and hydrogen for transport & energy solutions;
- **INNOVATIVE MEDICINES INITIATIVE (IMI)** – health research & drug development;
- **SHIFT2RAIL (S2R)** – innovation solutions to European Railways for passengers and freight;
- **SINGLE EUROPEAN SKY ATM RESEARCH (SESAR)** – air traffic management.

