



# 2020

## JTIS IN TRANSPORT

The European Union, through Horizon 2020, will invest more than € 28 billion in innovative research to contrast the economic stagnation. This investment will be divided into four general bunch of programs, namely the contractual Public Private Partnerships (cPPPs), the Joint Technology Initiatives (JTI), the Public-Public Initiatives and the SESAR - Joint Undertaking program. Each of these programs are different, both in funding and in aims, but they are all designed to one general goal: transferring as soon as possible scientific and technological research into the industrial/manufacturing sector. This will create high skilled, competitive and cutting-hedge future economy, and new jobs. This four bunches of programs cover a wide range of research areas, such as photonics, robotics, medicine, energy efficiency or air traffic.

### THE CONCEPT OF JTIS

Joint Technology Initiatives are an entirely new mechanism for performing research at EU level. They are long-term Public-Private Partnerships and are managed within dedicated structures based on Article 187 TFEU (ex Article 171 TEC). JTIs support large-scale multinational research activities in areas of major interest to European industrial competitiveness and issues of high societal relevance.

Joint Technology Initiatives (JTIs) are means to implement the Strategic Research Agendas (SRAs) of a limited number of *European Technology Platforms (ETPs)*. In these few ETPs, the scale and scope of the objectives is such that loose co-ordination through ETPs and support through the regular instruments of the Framework Programme for Research and Development are not sufficient. Instead, effective implementation requires a dedicated mechanism that enables the necessary leadership and coordination to achieve the research objectives. To meet the needs of this small number of ETPs, the concept of „Joint Technology Initiatives“ has been developed.

### LIST OF INITIATIVES ACTIVE IN HORIZON 2020:

- *Innovative Medicines Initiative (IMI)* - Health research theme
- *Aeronautics and Air Transport (Clean Sky)* - Transport research theme
- *Hydrogen and Fuel Cells Initiative (FCH)* - Energy research theme
- *Embedded Computing Systems (ARTEMIS)* - ICT research theme
- *Nanoelectronics Technologies 2020 (ENIAC)* - ICT research theme

### JTIS IN PRACTICE

The dedicated structure chosen to implement the JTIs are the Joint Undertakings, independent legal entities that manage research projects in an integrated way, with industry joining forces with other stakeholders. JUs have a dedicated budget and staff and provide a framework for the public and private players to work and take decisions together. They organise calls for proposals, oversee selection procedures and put in place contractual arrangements for projects set up to implement the JTI research agenda. They thus allow funds from different sources to be jointly managed and they are responsible for the related communication and dissemination activities. Each JU includes a Governing Board, an Executive Director as well as other bodies, including advisory bodies, depending on its specific operational and governance needs.

### THE COMMISSION APPROACH

In preparing the JTIs, the Commission:

- has not followed a „one size fits all“ approach because of the varied nature of the technological challenges, the different type of stakeholder relations and the need for tailored financial engineering arrangements;
- has followed key guiding principles in order to ensure efficiency and durability, to support long-term stakeholder commitment and to promote openness, transparency and cooperation in each JTI.

### PUBLIC PRIVATE PARTNERSHIP (PPP)

Public Private Partnership is the term used to describe funding arrangements that involve public (National or European) and Private funding. Public-private partnerships (PPPs) in research are defined by the OECD as: *Any formal relationship or arrangement over a fixed-term/indefinite period of time, between public and private actors, where both sides interact in the decision-making process, and co-invest scarce resources such as money, personnel, facilities, and information in order to achieve specific objectives in the area of the science, technology and innovation*”.

In Horizon 2020 PPPs are used to address industrial challenges. Two approaches are used: Institutional PPP and Contractual PPP. Institutional PPP is known as Joint Technology Initiatives (JTI)

### THE DIFFERENCE BETWEEN PPPS AND JTIS

PPPs cover many different forms of organisation and it is important to distinguish between traditional PPPs in Member States and the special PPPs for research purposes set up at the European level. Traditional PPPs are normally set up in Member States to modernise the delivery of infrastructure or public services, usually under private law and occasionally with financial participation of the Community. They aim at promoting efficiency of public services through risk sharing and harnessing of private sector expertise. JTIs are a specific form of European PPPs which were launched in 2007. They have a special legal framework and take the form of Community bodies making them subject to the Financial and Staff Regulations of the EU, as they are based on article 171 of the European Community Treaty. Community PPPs in the research field are oriented towards coordinating public and private investment into generating new knowledge and technological breakthroughs. The outputs are therefore less predictable and tangible than for investing in infrastructure and services.

### CONTRACTUAL PUBLIC PRIVATE PARTNERSHIP (CPPP)

The contractual Public Private Partnerships (cPPPs) are contractual arrangements between the European Commission and representative industrial associations, fully integrated in H2020. In practice, they are co-funded projects that will be selected through open and competitive calls following the H2020 rules and procedure.

It is important to underline that, while the Strategic Research Agenda (that has defined the cPPPs initiatives) has been developed by the industrial associations, the cPPPs calls are open to all, especially research institutions or innovative small or medium enterprises. This means that the cPPPs do not organize their own calls but funding is awarded by the Commission through open calls under the Horizon 2020 Work Program.

The European Union *foresaw* that “each euro of public funding is expected to trigger additional investments of between three and 10 euro to develop new technologies, products and services which will give European industry a leading position on world markets”.

Contractual PPPs are NOT legal bodies. They are established on an ad-hoc basis. In Horizon 2020 the following cPPPs exist:

- *Factories of the Future (FoF)*
- *European Green Vehicles Initiative (EGVI)*
- *Energy-efficient Buildings (EeB)*
- *Advanced 5G networks for the Future Internet (5G)*
- *Robotics*
- *Sustainable Process Industries (SPIRE)*
- *Photonics*
- *High Performance Computing (HPC)*

### SESAR – JOINT UNDERTAKING

Air traffic in the European skies is one of the highest in the world.

But this clashes with a sky “ruled” by national laws.

Through the *SESAR* program the European Union is trying to increase the overall efficiency of the air traffic management system.

#### TIP

Call and topics of JTI can be found on Participant Portal and generally are in line with Horizon 2020 rules and procedures.

