

The role contractual Public Private Partnerships and Joint Technology Initiatives play for collaborative R&I at European level

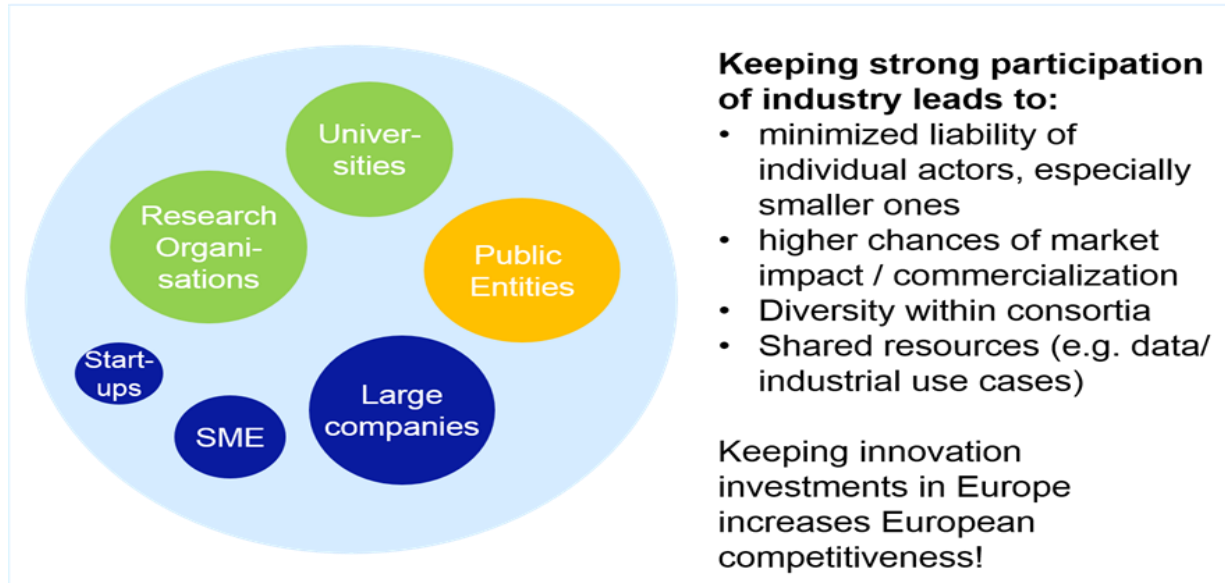
**Confindustria and BDI preliminary reflections
(December 2017)**

***Follow up of the Bilateral Business Forum Confindustria – BDI
held in Bolzano on 19-20 October 2017)***

Taking into account the views expressed at different institutional levels to review the participation of industry and the functioning of the European R&I partnerships in the next EU framework programme, Confindustria and BDI, in line with BusinessEurope's position, consider essential to secure that industry - including large enterprises - remains a substantial part of the research and innovation ecosystem in FP9.

Collaborative R&I at European level are needed more than ever in order to make the ongoing technological transitions a success for both European industry and society. As the Lamy Report clearly underlined, European added value is given by the promotion of an innovation eco-system built on transnational and multidisciplinary collaboration among different actors operating along industrial value chains.

In such systems, industry participation to EU funded R&I projects - especially in the second pillar "industrial leadership" and third pillar "societal challenges" of current Horizon 2020 - plays a main role and companies of all sizes, sectors and technology readiness levels represent key components. Cross-border industrial collaborative R&I must therefore be continued under FP9, aiming at increasing the competitiveness of European industry.



The engagement of the whole innovation ecosystem is supported by contractual Public Private Partnerships (cPPPs) and Joint Technology Initiatives (JTIs). Both types of partnerships are of high importance for collaborative applied research projects. These partnership instruments play a fundamental role as they favour innovation eco system at a large level but also at the level of projects. They are unique platforms which foster cooperation between public and private actors by pooling their diverse capabilities and creating the critical mass for high innovative projects. Partnerships represent a fundamental space to make research at a pre-competitive level, they are a positive experience to accelerate the creation of integrated industrial chains bringing different sectors together. Because of their size, they have high potentials to have an impact for society at large, to foster the global visibility of European innovations and to leverage the necessary funds for large-scale European projects. They also substantially contribute to speed up efforts in overcoming the valley of death and the gap between the demonstration and the commercialization phases. Last but not least, these partnership instruments represent an important tool to enhance participation to international R&I projects for newcomers and SMEs.

Enterprises need to count on continuous financing instruments in order to safeguard their investments. Many enterprises have invested substantially in PPPs and JTIs getting benefits but also contributing to the success of relevant projects. At present, within existing PPPs and JTIs, action is on-going to build up enabling technologies for applicable solutions addressed to different markets. **In order to allow an effective deployment of these technologies and protect long term investments, contractual Public Private Partnerships and Joint Technology Initiatives should be continued and enhanced in future FP9, through a stable financing framework.**

At the same time, taking into account the results of the mid term reviews of the functioning of the various partnership instruments (cPPPs, JTIs, etc.), we agree on the need to simplify the European R&I partnerships landscape by reducing fragmentation and enhancing their coherence and complementarities with EU, national and regional initiatives, increasing their impact and leverage effect, improving their transparency and openness, removing entrance barriers for newcomers and smaller R&I players.

Having in mind the recommendations formulated in the:

- Report of the Independent Expert Group on the mid-term review of the contractual Public Private Partnerships (October 2017);
- Staff Working Document of the European Commission in the interim evaluation of the JOINT UNDERTAKINGS (October 2017);
- Report “Increased coherence and openness of European Union research and innovation partnerships” of the Technopolis Group (June 2017),

we recognize that further work should be done by intervening in the following areas:

- **Improve the governance of partnerships instruments and the transparency of the management processes**, focusing on reaching a wider range of stakeholders either in governance structures and submitted proposals, on a stronger coordination and the definition of a clear development strategy. Foster new comers and SME participation avoiding the risk of creating ‘closed clubs’.
- **Favour a stronger EU Value Added and coherence** with other EU related actions avoiding duplication and overlapping and exploiting synergies with national and industry needs (closer links between the cPPPs/JTIs and the other EC instruments, more robust collaboration, e.g. through joint call across cPPPs/JTIs).
- **Revise and redesign the KPIs** by including indicators related to global competitiveness of the relevant industrial sectors. KPIs must be challenging, realistic, measurable, able to collect relevant monitoring data and updated so to ensure an adequate response to technology evolution and industry needs. A more robust monitoring of KPIs would increase results and impact in the short and medium term.
- **Enhance interregional cooperation and reinforce synergies among funds** (direct European funding and Structural Funds at regional/national level) and policies through a better harmonization of funding rules and procedures.
- **Improve and enforce communication activities + ensure effective and more systematic dissemination of data and project results** (often not

- easy to access), development of studies of exploitation and transferability of technical solutions within the same sector and along the supply chains.
- **Underline the value and disseminate the results within the Commission too**, in particular towards those Directorate Generals making policies with a potential impact on industry and on the development of the technologies and products that PPPs work on.

In this context, given its strong interest in keeping the relevance of cPPPs and JTI in FP9, industry is ready to participate and actively contribute to the ongoing debate on how to rationalize and reduce the complexity of the partnerships instruments landscape.

As regard contractual PPPs, their role to support industrial competitiveness in Europe and member States must be underlined. In Italy, the participation to PPPs within the work programme “Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology” of H2020 (FoF, EeB, SPIRE e GV) has registered extremely positive results with a sensitive growth of the financing rates in respect with FP7. Looking at the NMBP work programme in 2014/2017, Italy is ranked at the second place for granted EU financing (12.9 % correspondent to more than 80 millions €), just after Germany (23.5 % correspondent to almost 160 millions €) and before Spain (10.2 %) and France (8.9%).

Other PPPs can also be considered as success stories and clearly show the impact they can generate. Examples in this sense include the following: 1) **Future Internet PPP** has proven of being able to strongly push towards the development of technological solutions and the enhancement of the competitiveness of a whole productive sector and not just of a few industrial players; 2) **Cyber Security PPP** has been fundamental to create a true European defence against cyber attacks and this in straight connection with the relevant EU policies; 3) **Big Data Value PPP** is key for the development of European technological solutions in the area of big data – which more and more plays an essential role for the economic development – aiming at not leaving full control to American and non EU companies; 4) **5G PPP** is equally indispensable to deliver solutions, architectures, technologies and standards for the next generation of communication infrastructures and to secure Europe’s leadership in those particular areas where Europe is strong or where there is the potential for creating new markets such as smart cities, e-health, intelligent transport, education or entertainment & media. **All the examples above prove how important it is that the concrete deployment of these technologies and the**

support to their concrete application represent a central part in FP9, therefore avoiding discontinuity and sustaining industrial investments.

For this reason, it is also essential that member States, Italy and Germany in particular, defend the role of contractual PPPs in the future framework programme as an important instrument to promote growth and competitiveness, working at the same time to make them more open, to improve effectiveness and to raise the leverage effect.

In case PPPs were to be dismantled, it is fundamental to ensure that, in any case, industry will continue to play a central role in setting research agendas and related priorities.

As far as missions are concerned, they will have to be closely linked to industrial competitiveness objectives. Industry shall continue to have a say as regard the definition of R&I priorities in the context of the missions. Even where missions should be driven by large social objective, industry will have to be given an adequate space. **PPPs have the potential to play an important role in future missions. In particular, they may represent the way to ensure industry participation to missions.** As several PPPs can contribute to one specific mission, missions have the potential to answer to the need of enhancing the coherence among PPPs by linking them to the mission's objective.

KETs should continue to play a central role as key component of the innovation process. Being structurally enabling, they are key factors to differentiating products, strengthening production processes and generating innovation. In this perspective, KETs represent an essential leverage to the industrial system competitiveness and should continue to play a significant role in the forthcoming FP9, through a stronger focus on their deployment, with a view to help companies to better integrate them into their products and production systems. It is also crucial that the framework programme keeps a clear and visible focus on industrial technologies clustering them as much as possible (as it is the case with the work programme “Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing and Biotechnology” of H2020).

Thanks to H2020 financial support, numerous technologies are now mature enough and ready to be transferred into production processes, while appropriate tools to encourage technology transfer and increasing KETs' adoption are still lacking on the implementation side. Since companies often operate in more than one sector, it would be essential to focus more on differentiation both at technology level (supporting those technology areas that are lagging behind) and

in the selection of the areas of intervention, ensuring wider deployment in those sectors where technologies have been developed, while facilitating technology transfer to other relevant industries.

JOINT TECHNOLOGY INITIATIVES



The overall aim of the Joint Technology Initiatives (JTI) is to address strategic areas where research and innovation are essential to European competitiveness. JTIs are implemented through dedicated legal entities – Joint Undertakings - established under what was then the equivalent of the current Article 187 of the Treaty on the Functioning of the European Union (TFEU). In Horizon 2020, JTIs will have clearer and more ambitious objectives, contributing directly to competitiveness and EU policy goals. Each JTI has specific measurable objectives and key performance indicators, which will allow closer monitoring and evaluation. The objectives go considerably beyond those established for FP7. As regard ECSEL-JU, this is the only JTI based on a tri-partite model, where the EU grant is matched with the grants coming from the Members States, thus doubling the leverage toward the private stake holders. This means that 1 EUR from the EC leads to at least 4 EUR of total investment during the whole duration. Although complex, the tri-partite models has led to very effective leverage effects as well as to real synergies among member States' industrial policies and Industry/SMEs/Research organizations actors in Europe.

Budget foreseen for the different JTIs

Joint Technology Initiatives			
JTI	EU (Horizon 2020) + EU Member States (for Electronics only)	Industry	Total
Innovative Medicines Initiative 2	€1725	€1725	€3450
Fuel Cells and Hydrogen 2	€700	€700	€1400
Clean Sky 2	€1800	€2250	€4050
Bio-based Industries	€1000	€2800	€3800
Electronic Components and Systems	€1215 (+ €1200 from EU Member States)	€2400	€4815
<i>Total JTIs</i>	<i>€7640 (€6440 from Horizon 2020 + €1200 from EU Member States)</i>	<i>€9 875</i>	<i>€17 515</i>

JU	EU (Horizon 2020)	Eurocontrol and other members	total
European Air Traffic Management System (SESAR)	€600	€1000	€1600

JU Shift2Rail

CONTRACTUAL PUBLIC PRIVATE PARTNERSHIPS

Eight contractual Public-Private Partnerships (cPPPs) of strategic importance for the European industry will leverage more than €6 billion of investments at the end of the Horizon 2020 programming (allocated through calls for proposals). Each euro of public funding is expected to trigger additional investments of between €3 and €10 to develop new technologies, products and services.

Industry partners make direct financial contributions when participating in the projects financed under the cPPPs, following the conditions of the call. Industry meet around 50% of the costs of Horizon 2020-funded cPPP projects but the bulk of industry's investment and leveraged funds in the cPPP happen through other channels.

The eight contractual Public-Private Partnerships are:

1. **Factories of the Future:** [factsheet](#) | Funding: € 1.15 billion

Objective: to support the manufacturing industry through the development of sustainable production technologies and systems

2. **Energy-efficient Buildings:** [factsheet](#) | Funding: € 600 million

Objective: to increase the competitiveness and energy efficiency of the construction industry

3. **European Green Vehicles Initiative:** [factsheet](#) | Funding: € 750 million

Objective: to develop a competitive and resource efficient transport system with significantly less CO2 emissions

4. **Sustainable Process Industry:** [factsheet](#) | Funding: € 900 million

Objective: to make the process industry more resource- and energy-efficient

5. **Robotics** [factsheet](#) | Funding: € 700 million

Objective: a key driver of industrial competitiveness and essential to address key societal challenges in areas such as demographic change, health and well-being, food production, transport and security

6. **Photonics:** [factsheet](#) | Funding: € 700 million

Objective: one of the key enabling technologies for our future prosperity and an essential element of many sectors, from energy efficient lighting and health, to optical data communication, laser based manufacturing and sensing for safety and security

7. **High Performance Computing:** [factsheet](#) | Funding: € 700 million

Objective: which plays a pivotal role in stimulating Europe's economic growth and advancing European science

8. **Advanced 5G networks for the Future Internet:** [factsheet](#) | Funding: € 700 million

Objective: to stimulate the development of network internet infrastructure to ensure advanced ICT services for all sectors and users