JPIs -- tackling societal challenges today and tomorrow

*JPIs are highly visible long-term **processes that** aim to provide strategic direction to research programmes, initiatives and activities tackling a given societal challenge, and **contribute to EU and global policy objectives**, including the EU 2020 goals on smart, sustained inclusive growth, the UN 2030 Sustainable Development Goals and the WHO goals.*

*JPIs have brought greater visibility to EU research and are recognized as **contributing to the building of the European Research Area** by creating new fora for countries to work together, and by developing cooperation among JPI countries and also with the EC. Moreover, JPIs are involving their respective key stakeholders for ensuring that research results will respond to those stakeholders' needs. To date they are the most effective way to mobilise national research capacities for a more efficient coordination in addressing the Grand Challenges of our time. They are also the most successful European **examples of transnational, long-term, mission-oriented RDI programmes**.*

JPIs: long term initiatives, based on trust and efficiency

In Europe, as well as globally, a number of societal challenges have manifested that no country or region can successfully tackle alone. Addressing these **Grand Societal Challenges** efficiently and effectively requires combined research and innovation efforts and new ways of collaboration between countries in the long term. The **ten Joint Programming Initiatives (JPIs)**, launched successively in major research fields related to the Grand Societal Challenges after the 2008 EU Council decision, are Member State-led, bringing together national research funding organisations, research councils and ministries, both in Europe and further afield. Their ambitions cover **setting joint objectives and forging common visions and Strategic Research and Innovation Agendas** (SRIA) among countries, as well as developing appropriate framework conditions and selecting implementation actions.

Such an approach requires a **top-down, high-level sustained strategic intergovernmental dialogue** and will only be successful in the long run if complemented with a **transnational programme management** structure, which continuously evaluates the thematic results of ongoing joint actions, and builds a community of all stakeholders, which are needed for the implementation of the JPI missions. Top-down challenges require bottom-up solutions, using inclusive, traceable and transparent processes with the different stakeholders for **creating the trust between members and also with the EC**. This is what JPIs have done and will continue to do.

With concrete impact

Achieving impact takes time. It typically involves a **clear mission orientation and cohesive programme management** addressing different levels of governance, sectorial policies and competent actors. After about 7 years of operation, JPIs can begin to measure their first impacts at the level of ERA which stem from the development and the use of the SRIAs, designed to provide the direction and the momentum for each JPI. But achieving impact at the level of the societal challenges takes longer. Still, first assessments already show impacts such as feeding evidence into policy processes and decisions, as well as the drafting of regulations. By scaling up social and technological innovation, JPIs act as strategic hubs connecting the different actors and stakeholders, and coordinating major RDI activities, investments and programmes in their respective domains. JPIs also expand their influence by promoting capacity building in partner countries (in particular the EU13 and associated countries) while interacting with other EU and international initiatives. Through highlighting complementarities and better interaction, many **JPIs act as strategic hubs for international cooperation**, while deepening and widening the ERA.

An impact that can still be improved

What is needed is a renewed commitment in multi-annual programming and in members' participation in the respective JPIs, while keeping the participation process flexible and with variable geometry. **Stepping up national commitments will be the next big challenge for the Joint Programming Process.** The JPIs can overcome this predicament by further optimizing the use of national investments and (RDI) capacities through the sharing of infrastructures at the level of member countries. The future will require better **quantification and qualification (measurable and non-measurable) of the different impacts and incentives**.
Last, but not least, the newly developed and tested **portfolio of actions and tools for transnational collaboration can be harmonized and standardized** through better exchange between the ten JPIs. The forum of the JPI Chairs, which has already become instrumental in the collaboration with the GPC, can become an even stronger voice in the ongoing dialogue with the different policy levels and stakeholders in Europe.

Joint Programming: building a new and efficient strategy for transnational collaboration

In a relatively short time, JPIs have succeeded in providing strategic orientation to research by bringing countries together around long term common strategic research and innovation agendas to address societal questions that impact both Europe and the world. The definition of common research priorities has been performed in all JPIs in a dynamic and inclusive process which involves all possible stakeholders. In their respective challenges, JPIs act as RDI-hubs, which have developed an à la carte approach to addressing priorities (**mission orientation**), using a multitude of fit to purpose instruments which may involve funding of research actions, alignment of existing research programmes and research performing organizations, access to infrastructures, capacity building, or science-policy dialogue. For this, **dedicated programme management structures** have been built, which are unparalleled in Europe, and beyond.
The intervention logic of the JPIs has leveraged their members to work together and to involve the relevant stakeholders (the users and the producers at the relevant levels), for co-designing, co-operating, and delivering impact at the appropriate scales, so that research results will be relevant to and taken up by those stakeholders. They also provide a **gateway for increased participation in linking regional, national, European and international levels**. In this way, **countries can engage in multi-annual programming by enhancing and broadening their commitment and their participation in JPIs**, while keeping the participation process flexible and at variable geometry to maximize its impacts and efficiency at the EU scale.