

Communication on the global approach to research and innovation

Pre-legislative synthesis of national, regional and local positions on the European Commission's initiative



This Briefing forms part of an EPRS series offering syntheses of the pre-legislative state of play and consultation on key European Commission priorities during the current five-year term. It summarises the state of affairs in the relevant policy field, examines how existing policy is working on the ground, and, where possible, identifies best practice and ideas for the future on the part of governmental organisations at all levels of the EU system of multilevel governance.

Summary of findings

An EPRS analysis of the positions of partner governmental organisations at EU, national, regional and local levels suggests that they would like the following main considerations to be reflected in the discussion of the communication on the global approach to research and innovation (R&I):

- Governmental organisations stress that research and innovation (R&I) are essential for the global competitiveness of the EU and greater investment is needed to ensure that the EU does not lose its leading position. There is a particular emphasis on the need for SMEs and regional clusters to take part in innovation cooperation, building on existing programmes such as Eurostars.
- Public authorities state that third-country participation is essential for a successful R&I policy. However, the exact balance between openness and 'strategic autonomy' is harder to define. Some organisations state that systematic cooperation with third countries should be simplified in terms of red tape. Others express concerns about lower international participation in successive EU R&I programmes.
- Various priority regions to be targeted were emphasised, namely, the broader European neighbourhood, the Mediterranean region (PRIMA and BlueMed programmes cited as positive examples) and Africa. Other respondents emphasised the need to deepen ties with strong research capacity countries, such as Australia, Canada, Japan and the UK.
- Governmental organisations share the view that mobility of researchers is vital in both the European and international context. At the same time, EU R&I programmes should seek to prevent a 'brain drain' both away from the EU *and* within the EU, by promoting and incentivising research careers.
- Local and regional authorities also call on the Commission to strengthen the links between R&I policies and EU cohesion policies, including regional funds.

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Linking the Levels Unit and Members' Research Service

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1. Current state of play

Background

Figure 1 – Research and innovation for a stronger EU



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In her July and November 2019 statements to the European Parliament, Ursula von der Leyen pledged to lead a 'geopolitical Commission', aiming to build 'a stronger Europe in the world'. The objective is to reinforce the EU's role as a relevant international actor, and shape a better global order by boosting multilateralism. The [mission letter](#) to the Commissioner-designate for innovation and youth, Mariya Gabriel, extended this commitment to research and innovation. [Ms Gabriel's replies](#) to Parliament's questionnaire sketched a two-

pronged approach: openness to the world, to attract the best talents and ideas, and targeted strategic cooperation with key partners. On 30 September 2020, the Commission adopted two communications, on '[A new ERA \[European research area\] for research and innovation](#)' and on [achieving a European education area by 2025](#), which provided additional details on this geopolitical dimension.

On 19 October 2020, the Commission adopted its 2021 work programme, which included a proposed communication on the global approach to research, innovation, education and youth. The [roadmap](#) for this initiative was published on 12 March 2021 and a [communication](#) on the global approach to research and innovation was adopted on 18 May 2021 (but without specific provisions on education and youth). This communication was adopted soon after the new [regulation establishing Horizon Europe](#) entered into force. As the main EU funding programme for research and innovation between 2021 and 2027, Horizon Europe includes numerous initiatives for global research cooperation across all three of its pillars: excellent science (European Research Council, Marie Curie actions, and research infrastructures); global challenges and European industrial competitiveness (covering six thematic clusters and the in-house research of the Commission's Joint Research Centre); and innovative Europe (the newly established European Innovation Council, the existing [European Institute of Innovation and Technology](#), and European innovation ecosystems).

The Commission's communication maintains that the EU should continue to lead by example to preserve openness in international research and innovation cooperation, while at the same time promoting a level playing field and preserving the EU's 'strategic autonomy' in critical sectors. The EU should take the lead in multilateral research and innovation partnerships to deliver new green, digital, health, social and innovation solutions. The communication emphasises the importance of maintaining and deepening cooperation in the European neighbourhood, not least with third countries that have previously been [associated with EU research programmes](#) (this includes research powerhouses such as Switzerland and Israel). It also maps out areas of potential research collaboration with geopolitical powers, such as the US and China, while remaining alert to the risks involved in relations with the latter country. The communication hopes to strengthen EU research cooperation with Africa and build on existing initiatives, many in collaboration with the African Union. Cooperation with the UK remains important after Brexit. The [Trade and Cooperation Agreement](#) signed between the EU and the UK in December 2020 sets out key principles for the UK's association with Horizon Europe, which are now in the process of being finalised between both parties.

It can be helpful to look at EU research and innovation policies from a multi-level perspective:

- At EU level, Horizon Europe is the Union's framework programme for research and innovation over the 2021-2027 period. It has a budget of €89.4 billion (2018 prices). It is the EU's ninth framework programme, also referred to as FP9. It follows Horizon 2020, the eighth framework programme (FP8), which covered the 2014-2020 period.
- At national level, in 2002, the EU Member States agreed on the Barcelona objective to increase investment in scientific research and development (R&D) to 3 % of national gross domestic product (GDP).¹ According to [Eurostat](#), this target is currently met at national level only by Sweden, Austria, Denmark and Germany. The EU average stood at 2.18 % in 2018, which was lower than in South Korea, Japan and the United States (between 4.53 % and 2.82 %) but on a par with China (2.14 %).
- There are regional variations within EU countries too, as innovation tends to happen in clusters. Regions that meet the 3 % target are located mainly in Germany, Austria, Sweden and Belgium, while Denmark, the Netherlands and Finland each have one region in this group.²

On the basis of the public information available to date, this briefing focuses on the external policy dimension of research and innovation, in particular:

- 1 global competitiveness;
- 2 third-country participation in research programmes;
- 3 target regions;
- 4 priority thematic areas;
- 5 international mobility of researchers; and
- 6 the link with cohesion policy.

Methodology

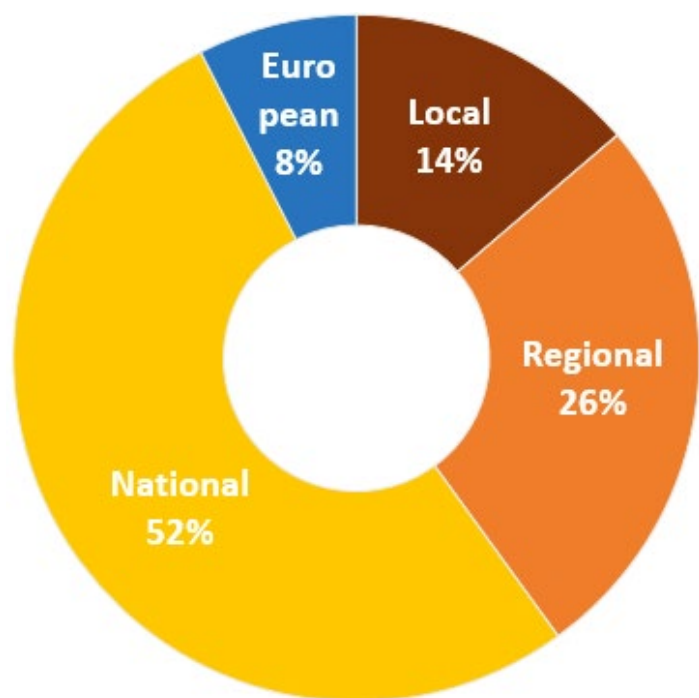
The data sources for this briefing were obtained through:

- 1 **general requests** for input from governmental organisations at all levels of government; and
- 2 **pro-active desk research**, aiming to obtain additional relevant input online.

First, general requests for input on key European Commission priorities were sent to all the governmental organisations in the Linking the Levels Unit network. These are active in a broad range of policies. This was done by means of the monthly newsletter *The Link*,³ with calls sent each month between February and May 2021 to an expanding network, reaching 711 contacts by the end of that period.

Second, pro-active desk research was carried out to gather further information from other governmental organisations

Figure 2 – Levels of governmental organisations, which contributed input analysed in this briefing



Source: EPRS.

online, as well as to cover the relevant literature, including European Parliament Library knowledge resources. This process took place from February to June 2021 with a view to closing identified analytical gaps and mitigating, to the extent possible, self-selection bias. Our outreach strategy garnered 134 documents, which are analysed for this briefing: 11 from the local, 34 from the regional, 51 from the national and 38 from the European level. Figure 1 above shows the levels of governmental organisations that published input documents analysed in this briefing. The main sources included original feedback provided by governmental organisations to the European Commission on the roadmaps, inception impact assessments, open public consultations and proposals related to these initiatives (2018-2021):

- [Communication on the global approach to research and innovation](#);
- [Recommendation on a pact for research and innovation in Europe](#)
- [Communication on the future of the European research area](#);
- Horizon Europe programmes on the [European partnership for innovative small and medium-sized enterprises](#) and the [EU-Africa global health partnership](#); and
- [EU funds in the area of investment, research and innovation, small and medium-sized enterprises \(SMEs\) and the single market](#).⁴

Additional relevant Commission consultation work-streams were analysed, but did not receive substantive feedback from governmental organisations concerning global aspects.⁵

2. Positions of governmental organisations to date

Global competitiveness

One common trend identified was the desire for the EU's research and innovation framework to become more globally competitive. This objective was expressed at national level, for instance, by the **Netherlands**, **Cyprus**, **Austria**, the **Swedish research council**, the **Hungarian national research, development and innovation office** and the **Slovak Ministry of education, science, research and sport**.

The **Dutch government** is mainly concerned about the EU's main competitors increasing their investments in R&D relative to the EU,⁶ considering that there is a serious risk that Europe's relative strength as an R&I location may deteriorate in the medium and longer term, if steps are not taken to ensure investments today. This could result in a loss of talent, investment, innovative solutions and jobs to locations in the world that are more favourable to science, innovation and business. As a consequence, the Dutch government considers it essential to make further progress towards the objective of 3 % R&D intensity, by increasing both public and private investments at EU level. Similarly, at EU level the **European Investment Bank** (EIB) has noted that, despite its public R&D investment capacity and scientific performance, the EU is lagging behind competitors such as the US and China in terms of R&D investment levels, and considers it fundamental to promote investments in order to promote Europe's global competitiveness.

The **Wirtschaftskammer Österreich (WKÖ)** is of the opinion that the leading principles of the [2012 Commission strategy for international cooperation in research and innovation](#) are still relevant today and should be strengthened, for instance in multilateral fora and by coordinating more effectively with Member States. The 2021 communication analysed in this briefing is designed to replace the 2012 strategy.

Cyprus further highlighted the important role of SMEs in the context of the EU's R&I competitiveness. It stated that EU measures aimed at boosting SMEs' innovative potential and making them more competitive at global level should be enhanced, possibly raising the participation target for SMEs above 20%. The Cypriot government supports the continuation and

expansion of existing support programmes for SMEs, for example Eurostars, and the introduction of new targeted support programmes.⁷

Several other national actors, including the **Maltese Ministry for the economy, investment and small business**, the **Austrian Ministry for digital and economic affairs**, the **German federal government**, the **Spanish centre for development of industrial technology** (CDIT), and the Swedish governmental agency for innovation **VINNOVA**, also considered [Eurostars](#) to be a positive programme for improving the internationalisation and, consequently, the global competitiveness of SMEs. In particular, [VINNOVA](#) supports the strengthening of SME support for international cooperation in research and innovation beyond Europe, while the Spanish [CDIT](#) sees Eurostars as a way to allow participants to find the best partners they need, while also opening up new export markets. [Malta](#), while noting that the programme is coherent with internal policies to help SMEs innovate and collaborate internationally, also stressed that wider internationalisation of the Eurostars programme should not affect Malta's projected financial contributions to the programme nor increase the administrative burden for small Member States.

At regional level, the **Innoviris** agency of the Brussels Region and the **Auvergne-Rhône-Alpes** region also shared this view. [Innoviris](#) in particular highlighted the need for more common guidelines among participating countries on the topics of eligibility criteria and minimum financial commitments, in order to establish more efficient cooperation. In France, **Auvergne-Rhône-Alpes** noted that efforts were still needed to simplify the management and coordination of various programmes for SMEs in order to facilitate access by beneficiaries to funding and promote global competitiveness.⁸

Third-country participation in R&I initiatives

Figure 3 – Research and innovation: where to set the boundaries?



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The EU has agreed a new set of rules to govern third countries' association with Horizon Europe (Article 16 of the [Horizon Europe Regulation](#)). Whereas the EEA countries, acceding and candidate countries, as well as European Neighbourhood countries,⁹ will have the right to accede to Horizon Europe, other third countries (including key research partners such as Switzerland and the UK) will have to negotiate access and

fulfil general criteria set by the EU (good capacity in science, technology and innovation, market economy, protection of intellectual property rights, etc.). These are designed to ensure that the EU gets a fair balance of benefits from the programme, from a financial perspective as well as in terms of intellectual property and other matters. The new regulation explicitly allows the EU to limit the access of third countries, including those covered by European Neighbourhood policies (e.g. Israel), and potentially exclude them from specific components of Horizon Europe where the EU has strategic or security interests at stake.

While all the position papers analysed that mentioned third-country participation were favourable to it, they also, predominantly at the national level, further qualified the concrete modalities of engagement with these third countries. The governments of **France**,¹⁰ **Denmark**¹¹ and **Finland**¹² consider that third countries included in the EU's framework programme should, where possible, guarantee reciprocity of access to research programmes. The **German federal government** considers that scientific expertise and common innovation goals should be the basis of open

international cooperation, in order to protect Europe's 'strategic autonomy'.¹³ Independence is also a concern for the **French government**, which considers that association with third countries should be granted on the basis of clear added value for the EU. In contrast, the **Austrian chamber of commerce** sees a major risk in rebalancing the EU cooperation strategy because of the pandemic and geopolitical changes. In its opinion, the possible exclusion of associated countries such as the UK, Switzerland, Norway and Israel from Horizon Europe calls could incentivise R&I actors in those countries to favour ties with EU competitors, for instance in the US and Asia, to the benefit of those regions. Therefore, the Austrian chamber of commerce argues that cooperation with these strategic partners should be based on reciprocity and fair conditions regarding the protection of intellectual property rights.

Collaboration and partnerships with third countries in the field of research and innovation offer the potential to sustain the EU's global competitiveness, in particular with a view to achieving sustainable development. For this reason, the **Swedish research council for sustainable development** (FORMAS) believes that this aspect of interlinkage of R&I policy at global, regional, and national levels should be given a higher profile in the Commission's policy.¹⁴

Documents analysed in relation to the ninth framework programme (Horizon Europe) note with concern that international participation decreased between the seventh framework programme (FP7) and Horizon 2020 (FP8), and consider it fundamental to strengthen global R&I cooperation. Many inputs highlight an interest in ensuring that third-country participation in projects is simplified and promoted, as societal challenges are global and need competences and experiences from different parts of the world. This is especially the case at the national level of governance, where, according to the [European Commission's synthesis of stakeholder input for Horizon Europe](#), around 70 % of Member States who submitted a position paper included comments on this topic.

The **Swedish research council**,¹⁵ as well as the governments of **Portugal**¹⁶ and **Denmark**,¹⁷ feel that there is a need to further define strategic areas for international cooperation in the Horizon Europe programme. To this end, the government of **Poland** has published a position paper suggesting a renewal of the international cooperation (INCO) roadmaps as a way of strengthening third-country participation.¹⁸ Already in 2017, the **Belgian federal science policy office (BELSPO)** remarked that cooperation had been below expectations and called for it to be strengthened.¹⁹ Belgium welcomed improvements to the Commission strategy aimed at making cooperation more visible and coherent, defining R&I topics in dialogue with targeted third countries, and reconsidering specific international cooperation actions (SICA). BELSPO furthermore encouraged the establishment of a dedicated international element within the programme, with its own committee focused on target regions/countries and with content determined after negotiations with the target region/country.

At regional level, SICA activities were also mentioned by the **government of Catalonia**, which proposed that these actions should address problems of shared interest or mutual benefit and that bilateral research agreements and international joint programmes should be strengthened.²⁰ In addition to third-country participation, the Belgian region of **Wallonia** also called for the promotion of further functional links between EU programmes and international organisations (e.g. the European Space Agency), in order to maximise the impact of initiatives and to monitor duplication and double funding more carefully.²¹

At EU level, the **European Economic and Social Committee** (EESC) points out [in an exploratory opinion](#) that many third-country Horizon 2020 partners experienced difficulties in complying with the formal requirements of the programme, and called for these to be simplified wherever possible in order not to discourage international partners from taking part in R&I projects.

Target regions

Several inputs across different levels of governance outlined thematic areas or specific regions/countries that they believed the EU should focus on.

At national level, for the [Dutch research council](#), the construction of a political vision for the European research area should take into account the fact that not all European countries are EU Member States, but all are able to actively and constructively contribute to advancing the interests of the region in the face of global scientific competition. The fourteen countries covered by the [EU Danube region strategy](#) also commented on the importance of cooperation with non-EU countries in the European region, in particular with associated and candidate countries.²² Recalling the importance of macro-regional strategies in making EU policy goals more understandable and building a cohesive and competitive European research area, they considered that measures should be introduced to reduce the disparities between upstream and downstream countries in the research process when it comes to transnational cooperation.

The **Italian Ministry of education, university, and research**, on the other hand, would like to see more cooperation with the Mediterranean countries and the African continent, paying particular attention to joint R&I issues relating to migration and the achievement of the UN sustainable development goals.²³ The Mediterranean was an area of particular focus for the **Republic of Cyprus** as well, which highlighted Euro-Mediterranean cooperation in R&I, more specifically the [PRIMA](#) and [BLUEMED](#) initiatives, as examples of excellence to be promoted in the region.²⁴ The PRIMA initiative was also identified by the [EESC](#) and the [Italian Senate](#) as a positive example of international cooperation, with the **Italian Senate** adopting a resolution calling for more EU Member States and third countries to join the programme.

Box 1 – Best practice: partnership for research and innovation in the Mediterranean area (PRIMA)

The PRIMA programme aims to devise new R&I approaches and develop capacities to face common challenges in the Mediterranean, in particular concerning integrated water provision, sustainable farming systems, and agro-food value chains. The aim of the partnership is the resolution of water scarcity, food security, health and migration problems upstream, in order to ensure prosperous Mediterranean societies and the achievement of the objectives in the UN's Agenda 2030 for sustainable development.

PRIMA consists of EU Member States, Horizon 2020 associated countries, and Mediterranean partner countries, with the participation of the European Commission. 19 countries have committed to the initiative to date: Croatia, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia and Spain within the EU; Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia and Turkey, outside the EU. Funding for the initiative's activities comes from a combination of national funding from participating States (currently €274 million) and EU-level funding through the Horizon 2020 programme (a €220 million contribution). The PRIMA Foundation, based in Barcelona, operates as a non-profit organisation under Spanish law.

Source: [PRIMA](#).

The **government of Ireland** identifies the US and Asian states as third countries with which the Commission should actively support international collaboration.²⁵ For the [Czech Senate](#), in 2018 and the **Belgian federal science policy office** in 2017, it was desirable to ensure appropriate participation in the Horizon Europe programme for the United Kingdom.

At regional level, the **government of Catalonia** proposes more links with Mediterranean partners, BRIC countries (Brazil, Russia, India and China), Mexico, and with certain developed countries including the US, Japan, the Republic of Korea, Canada, Singapore and Australia.²⁶ At EU level, the

EESC [has stressed the need](#) for closer ties with European neighbourhood policy countries and the Union for the Mediterranean.

Priority thematic areas

When it comes to specific thematic areas of interest, **Cyprus** has stressed the importance of developing international innovation in the following priority areas: water management, farming systems and agro-food value chains, blue growth, and the UN sustainable development goals, as well as creating ties to cooperate in the face of instability and security challenges.

At **regional** level, **Catalonia** highlights several of the above issues in its own [position paper](#), noting that the promotion of innovation in areas such as the blue economy, water, sustainability of marine resources, health, the agro-food sector, tourism, environment and climate change should be a priority of the EU's research and innovation programmes. Furthermore, for this Spanish region, global cooperation should be developed more across borders, with a particular eye not only to the intra-EU dimension but also to relations with the broader Mediterranean region.

At **local** level, the Finnish **City of Espoo** points out that it would like to see more funding for local issues, especially for projects that focus on urban challenges, digital transition, developing the European platform economy, and advancing carbon neutrality and citizens' well-being.²⁷

At **national** level, the **German government** [provided feedback](#) to the more specific 2019 consultation on an EU-Africa Global health partnership and backed R&I global health initiatives in the current [European and developing countries clinical trials partnership](#). Germany supports a focus on clinical R&D on infectious diseases most relevant for sub-Saharan Africa. It considers that a widening of this specific programme towards other health issues and research concepts should be considered very carefully in terms of both impact and budget, as it would risk watering down the impact of the partnership's core activities.

At **European** level, the **EIB** has stressed that new technological developments should be at the top of the EU's priorities, with emerging technologies such as artificial intelligence, quantum computing and advanced manufacturing playing a core role in building a sustainable and green society.

International mobility of researchers

Many of the documents analysed highlight the importance of Marie Skłodowska-Curie actions (MSCA), including – at regional level – those of **Flanders**,²⁸ **Brittany**, the **South Sweden Brussels Office** and – at national level – **Denmark** and **Czechia**. Various governmental organisations propose a significant increase in MSCA funding, including **Cyprus**, **Ireland**, **Croatia** and **Hungary**. **Germany** condemns the use of flat rates in MSCAs as leading to funding gaps in a number of Member States, while the **national research council of Italy**²⁹ proposes a simplification of Marie-Curie research training networks. Finally, **Slovakia** would like to see further links between MSCAs and other European programmes and initiatives.

At regional level, for **Auvergne-Rhône-Alpes**, France, it is necessary to strengthen both European and international mobility of researchers, in order to promote cooperation as well as the integration of researchers into companies.³⁰ At national level, the **Slovenian expert group of the Ministry for education, science and sport** mentions reducing bottlenecks in the participation of researchers in cross-border collaboration as an area of particular interest.³¹

The **Slovak Ministry for education, science, research and sport** believes that R&I programmes should create favourable working conditions for researchers, based on the [European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers](#).³² They should also encourage participants from all countries to participate in European R&I projects. The Slovak Ministry therefore considers it essential to set up a remuneration policy to ensure that no participants are discriminated against, regardless of their country of origin and sector. A second

Figure3 – Europe at the centre of global research



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recommendation is to review the reimbursement of personnel costs, particularly where the salary rating is different for participants in the same project, so as not to demotivate large, cross-border groups of researchers. The idea of equal work for equal pay in the FP9 programme was also supported by the **Romanian Senate**.³³

Slovakia is also concerned about the risk of a brain drain, not only from Europe towards third countries but also within the EU itself, an issue also shared by **Hungary**.³⁴ The **EESC** has [identified a similar concern](#) at EU level, noting that to stem the brain drain from peripheral regions towards other areas, priority must be given to increasing financing for early career researchers.

The link with cohesion policy

At local and regional levels, various inputs focus on the issue of the relationship between R&I and EU cohesion policy and call for a stronger bottom-up approach in R&I to achieve the Commission's geopolitical objectives. The **City of Munich**,³⁵ the [Metropolis Ruhr](#), the **South Sweden Brussels Office**,³⁶ the **East Middle Sweden region**³⁷ and **Emilia-Romagna** all emphasise the importance of cohesion policy in multiplying the efficacy of research and innovation policies. At national level, this position was shared, for instance, by the **Swedish Ministry of education, research, enterprise and innovation**³⁸ and by the **Croatian government**.³⁹

Building on this concept, **Emilia-Romagna** condemned the hypothesis of cutting cohesion policies for the most developed regions (which invest most in R&I), as this will bring the EU further away from the objective of reducing the innovation and productivity gap between it and its main global competitors.⁴⁰

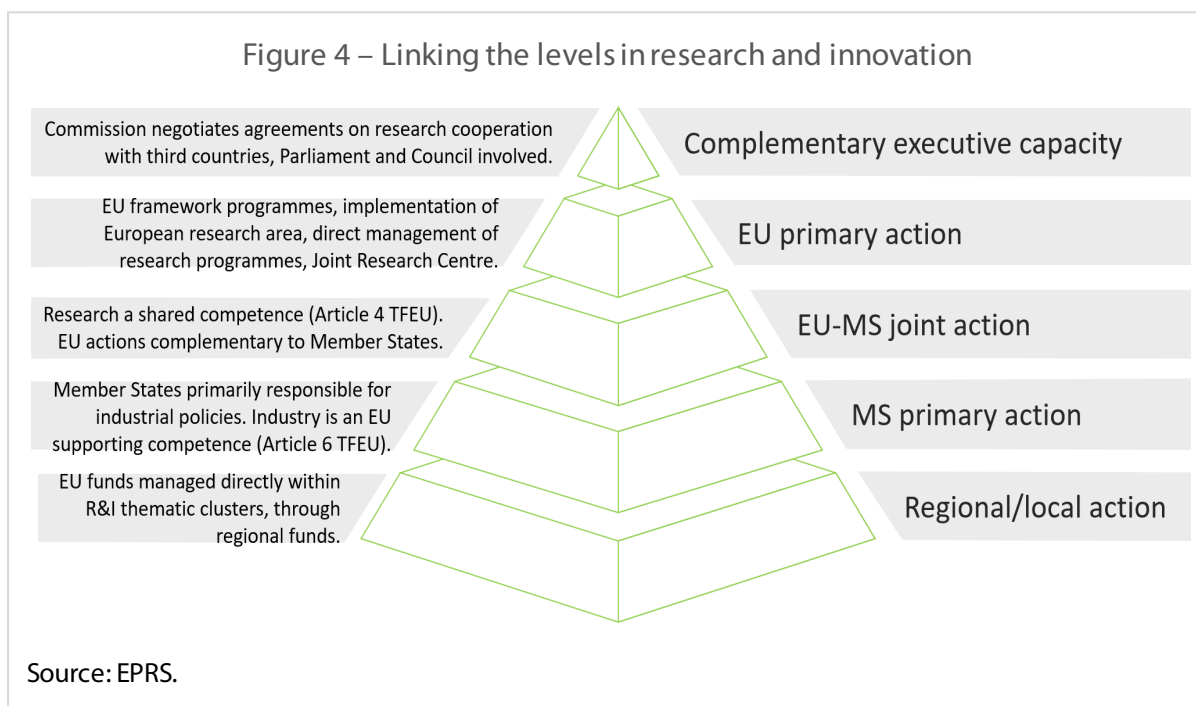
The regional **government of Catalonia** further highlighted its activity in the framework of the [Four Motors for Europe](#), a regional R&I cooperation initiative between itself, **Baden-Württemberg**, **Lombardy** and **Auvergne-Rhône-Alpes**, as best practice to ensure a positive regional contribution to EU innovation, growth, and competitiveness objectives.⁴¹ Catalonia has made efforts to maximise the international competitiveness of its research, development and innovation system, and believes that R&I programmes should do more to take the regional dimension into account, by promoting broad collaboration across borders to address global challenges.

3. Analysis of governmental organisations' positions

Multi-level governance in research and innovation

In the research and innovation field, governmental organisations operate within a complex multi-level system as depicted in Figure 4. The EU Treaties give a predominant role in this area to the national level, as per Articles 4 and 6 of the Treaty on the Functioning of the European Union. There is, however, some space for EU primary action, which is increasingly complemented by an EU

executive capacity. Finally, the role of regional and local authorities should not be forgotten, all the more since innovation tends to happen in clusters.



Against this backdrop, an analysis of governmental organisations' positions reveals the following main themes.

There is a broad consensus among organisations at all levels of governance that research and innovation contribute to global competitiveness and that third-country participation is desirable. Moreover, measures aimed at simplifying procedures and fostering the international mobility of researchers are considered uncontroversial by those who commented on these themes.

On the other hand, there is a range of preferences when it comes to target regions and priority thematic areas, depending on the interests of the various respondents. Similarly, the mix of openness to the world and protectionism varies. These considerations may mean introducing a degree of flexibility in the implementation of the global approach to research and innovation.

Approximately half of the contributing organisations and half of the documents analysed came from the national level, which is confirmation of the strong role of Member States in this field. This role is recognised by the EU level: it is worth noting that no national parliaments raised subsidiarity concerns on the proposal establishing Horizon Europe.⁴²

Last, but not least, one recurrent theme brought up by regional and local authorities in the documents analysed is the importance of creating synergies between the various funding programmes available by facilitating a combination of funding instruments and harmonised rules. They likewise recommend ensuring a coherent bottom-up approach to R&I that promotes interregional investments and cooperation, with the ultimate aim of strengthening global R&I hubs at regional and local levels. One of the main findings of the interim evaluation of Horizon 2020 was the will to improve the shared, multi-level governance between the EU, Member States and regions and to promote the co-design and co-construction of the framework programme with the public and civil society.⁴³

EXPERT READING ON THE TOPIC

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Karakas C., [Research and innovation](#), EPRS, European Parliament, November 2020.

Leijten J., 'Innovation policy and international relations: directions for EU diplomacy', *European Journal of Futures Research*, Vol. 7(1), pp. 1-21, June 2019.

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Policy Department for Budgetary Affairs, [Mainstreaming innovation funding in the EU budget](#), European Parliament, April 2019.

Reillon V., [Preparing FP9: Designing the successor to the Horizon 2020 research and innovation framework programme](#), EPRS, European Parliament, November 2018.

Reillon V., [Interim evaluation of Horizon 2020](#), EPRS, European Parliament, March 2018.

ENDNOTES

- ¹ Karakas, C., [Research and innovation, thinking about future policy](#), EPRS, European Parliament, October 2020.
- ² Eurostat, [Eurostat regional yearbook](#), 2020 edition, p. 119.
- ³ Governmental organisations wishing to subscribe to 'The LINK' newsletter can write to EPRS-LinkingLevels@europarl.europa.eu.
- ⁴ For a total of 13 documents, ranging from 1 to 6 documents per work-stream.
- ⁵ Including roadmaps, inception impact assessments and consultations on Commission proposals in 2018-2019 on [civil, defence and space industries \(action plan on synergies\)](#); the [European Institute of Innovation and Technology – strategic agenda for 2021-27](#); [amendment of the regulation on the European Institute of Innovation and Technology \(EIT\)](#); the Horizon Europe programmes on the [partnership on high performance computing](#); [measurement research – European partnership on metrology](#); [European partnership for a circular bio-based Europe](#); European partnership for clean hydrogen; the [9th framework programme for research and innovation and rules for participation and dissemination](#); the [specific programme implementing the 9th framework programme on research and innovation](#); and [the three-year \(2015-2018\) evaluation of the European Research Executive Agency](#).
- ⁶ Dutch government, [The Netherlands' position paper on the interim evaluation of Horizon 2020](#), February 2017.
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- ⁸ Auvergne-Rhône-Alpes, [Position... sur le futur programme cadre \(PCRI\) après 2020](#), March 2018.
- ⁹ Non-EU European Economic Area countries are Iceland, Lichtenstein and Norway. Currently, the EU candidate countries are Albania, North Macedonia, Montenegro, Serbia and Turkey. The 16 European neighbourhood policy [partners](#) are Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Republic of Moldova, Morocco, Syria (for which all cooperation however has been suspended since 2011), Palestine, Tunisia and Ukraine.
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- ¹¹ Danish Ministry of higher education and science, [Early Danish position on the next EU framework programme for research and innovation](#), May 2017.
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- ¹³ German government, 'Horizon Europe' – German positions on the proposal of the European Commission: Federal government position paper, July 2018.
- ¹⁴ FORMAS, [The future of research and innovation and the European research area](#), August 2020.
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- ¹⁶ Portuguese Ministry for science, technology and higher education. [On the evolving nature of EU research funding: H2020 interim evaluation and directions towards next framework programme \(FP9\) in an increasingly diverging Europe](#), May 2017.
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- ²⁰ Catalonia, [Position paper on the European ninth framework programme for RTD \(2021-2027\)](#), February 2018.
- ²¹ Wallonia, [Position paper on Horizon Europe](#), February 2019.
- ²² Danube region strategy, [Position paper of priority area 'To develop the knowledge society \(research, education and ICT\)' \(PA7\) for the EU strategy of the Danube region...' on promoting research and innovation for the Danube region in the upcoming EU-funding period after 2020 \(particularly FP9\)](#), June 2017. See also [Danube region strategy](#), Joint

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