

# Portugal Report

ERA-LEARN:

enabling systematic interaction with the P2P  
community

May 2026

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# Introduction

## *ERA-LEARN Country Reports*

ERA-LEARN has been producing [country reports](#) since 2019. The selection of the countries is based on a combination of variables: number of network participations, network coordination, national commitments to partnerships, etc., based on the data included in the ERA-LEARN database and their combination with relevant R&I indicators from EUROSTAT, OECD and the European Innovation Scoreboard.

This is the first report that is done on Portugal, whose performance is compared to that of Czechia, Denmark, Hungary and Norway. The report draws upon available literature and data, i.e. national R&I strategy/policy documents and sites, statistics from various sources (OECD, EUROSTAT, EIS, EIT, etc.), country reviews and special reports by the Policy Support facility, and relevant MLE (mutual learning exercise) reports.

The partnership-related data comes from the ERA-LEARN database (cut-off date August 2025, the data for calls<sup>1</sup> are until Oct 2024), eCORDA (cut-off date August 2025) and the BMR 2024. The ERA-LEARN data (especially actual investment in projects and project numbers) is 75% complete, as not all required information has been fully updated by the H2020 partnerships. Yet, the number of calls is accurate and the committed budget figures are available for most calls.

The data on Horizon Europe partnerships and their projects is still largely incomplete. The partnership-funded project-related data in the ERA-LEARN database refers to P2P networks that were launched and supported under Horizon 2020. On the other hand, the project-related data in eCORDA covers mainly projects from the co-programmed and institutionalised partnerships in Horizon Europe. Data on projects from co-funded partnerships and EIT-KICs are far from complete in the ERA-LEARN database. However, the national agencies managing the country's participation in European Partnerships are keeping such data and these have been included in the report.

The country reports provide an analysis of a country's participation in partnerships and try to explain its 'performance' within the overall national R&I policy context and system. Comparing the specific country with a set of other countries of interest as well as the EU14, EU13 and EU27 overall averages provides additional insights. The country reports may be useful for individual organisations in the specific country as they might only have a fragmented picture of the situation, or they might lack explanations for certain features that may be found in the wider R&I context of the country. The reports may also be useful for organisations in other countries that wish to learn the reasons behind the 'position' of a country and/or learn from other countries' exemplary performances.

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<sup>1</sup> The data for calls include all calls that have been announced, launched, or completed from 2014 until Oct 2024.

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We owe special thanks to the officials in the Foundation for Science and Technology (FCT) and the National Innovation Agency (ANI) involved in managing the participation of Portugal in European Partnerships, for facilitating the preparation of the report by providing their valuable insights and guidance as well as data and background material. We are also grateful for the permission to use the data that was elaborated for the purposes of the BMR2024 by the [expert group on support for the strategic coordinating process for partnerships](#). Special thanks are also due to Optimat for its support with the data collection and elaboration.

We would also like to thank all the interviewees that shared with us valuable insights, data and information about their experience and knowledge of Portugal's position in international collaboration and overall performance in research and innovation. In particular, people from the following organisations were interviewed<sup>2</sup>:

- Foundation for Science and Technology (FCT),
- The National Innovation Agency (ANI),
- The Commission for Coordination and Regional Development of the Center (CCDRC),
- Directorate-General for Energy and Geology (DGEG),
- Agency for Clinical Research and Biomedical Innovation (AICIB), as well as
- project beneficiaries from the partnerships AAL2, EMPIR, JPND, ERA-NET SmartGridPlus, CHANCE, HERA, PRIMA, BIODIVERSA 3, TRANSCAN 3, M-ERA.NET 2, and ERACoBioTech.

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<sup>2</sup> Due to GDPR rules the names of the individuals are not disclosed.

# Key Highlights

Over the past decade, Portugal has been increasingly adopting a thematic and mission-oriented approach in the R&I policy making which aligns closely with EU-level frameworks and priorities. The framework for R&D policy is primarily defined by the [Portugal 2030 Strategy](#). The Portugal 2030 Strategy defines the country's long-term development vision, aligning national priorities with the UN 2030 Agenda for Sustainable Development and the European Union's strategic goals for the 2021–2030 decade. It aims to ensure economic competitiveness, social inclusion, and environmental sustainability while strengthening territorial cohesion and institutional capacity. The Strategy is organized into four thematic agendas, which together form the country's main development framework to 2030:

- People first: Focuses on a better demographic balance, greater inclusion, less inequality
- Digitalisation, innovation and skills: Emphasises the importance of digital transformation as a driver for development.
- Climate transition and resources sustainability: Aims to foster sustainable practices and reduce environmental impacts.
- An externally competitive and internally cohesive country: Seeks to enhance Portugal's global competitiveness while ensuring social cohesion.

Beyond the thematic agendas, "Portugal 2030" identifies 10 strategic axes that cut across different policy domains, such as infrastructure networks, digital transition, health and the future of care, electrification, culture, etc. The national strategy also ties competitiveness to positioning Portuguese firms in European and global value chains and highlights Horizon Europe and the Connecting Europe Facility among the core funding channels for its internationalised agenda. Beyond R&I per se, it underlines Iberian cross-border cooperation and better trans-national connectivity as levers for joint projects and shared outcomes.

Although the priorities are only defined at a higher level, the strategy provides the overall context within which Portugal takes part in trans-national partnerships and other relevant initiatives. The "Portugal 2030" strategy makes specific references to European-level and international collaboration in research and innovation, which are framed around strengthening the national science base while explicitly internationalising it. The document sets a headline goal to lift R&D expenditure to 3 percent of GDP and commits to thematic R&I programmes "in the European context," to upgrading research infrastructures and getting them into European infrastructure networks, and to attracting and retaining highly qualified researchers in ways that make the Portuguese system competitive with "the best European levels of excellence."

Portugal's [National Smart Specialisation Strategy \(ENEI 2030\)](#) and [Technological and Business Innovation Strategy \(2018-2030\)](#) also reinforced the shift towards a more thematic approach by linking national R&I efforts with European priorities, encouraging participation in transnational partnerships, and mobilising EU funds to complement domestic investments. ENEI 2030 organises its priorities into six broad, horizontal domains. These are Digital Transition, Advanced Materials, Systems and Production Technologies, Green Transition, Society, Creativity and

Heritage, Health, Biotechnology and Food, and Major Natural Assets covering Forest, Sea and Space. This means supporting the digitalisation of the economy and advanced manufacturing capabilities, accelerating circular and low-carbon transformations, leveraging cultural and creative strengths, deepening life-science and agri-food innovation, and mobilising Portugal's natural endowments on land and at sea, while developing space and Earth-observation applications.

The Technological and Business Innovation Strategy of Portugal 2018–2030 defines three overarching strategic pillars, internationalisation being one of them alongside business innovation and technological development, and knowledge transfer between science and industry. It also identifies several thematic priority areas, aligned with both national strengths and European priorities, designed to strengthen national innovation capacity and competitiveness.

Within this overall framework, thematic strategies have also been developed that provide orientation for research and innovation activities both at the national and international levels:

- The National Strategy for Semiconductors ([Council of Ministers Resolution No. 12/20241](#)) aiming at boosting the microelectronics and semiconductor industry in Portugal, through the establishment of mechanisms that strengthen business capacity and national research and development, as well as the promotion of synergies with international partners and participation in sector-specific European programs. This strategy aligns with the Integrated Circuits Regulation (European Chips Act) and frames the country's participation in relevant partnerships such as the Chips JU or others in Cluster 4 (Digital, Industry and Space).
- The [Microelectronics Agenda](#) was created as part of Portugal's Recovery and Resilience Plan with the purpose to strengthen the production and innovation capacity of the Portuguese semiconductor and microelectronics industry. One of the major outcomes of the agenda is the Microelectronics Observatory, a strategic tool that maps and publicizes the microelectronics sector in Portugal, aiming to promote the visibility and development of the national industry.
- In relation to Climate, Energy and Mobility (Cluster 5), a Memorandum of Cooperation was signed between Clean Aviation JU, ANI (National Innovation Agency), and ANAC (National Civil Aviation Authority) in March 2025. Although not legal binding, the MoC formalizes the national commitment to actively support the development of clean aviation technologies and enables the alignment of national priorities with European objectives, encourages the participation of Portuguese entities in European calls, enhances synergies and mobilizes funds at national level.<sup>3</sup>
- The revised [National Energy and Climate Plan \(NECP\) 2021-2030](#) with specific envelopes for energy, water and climate, aligns national R&I with the EU Green Deal architecture, Horizon Europe and the Strategic Energy Technology Plan. The plan details active participation in SET Plan governance and implementation groups and in Horizon Europe Cluster 5, as well as links to European Partnerships including Clean Energy Transition, Driving Urban Transitions, Batteries4Europe, Clean Hydrogen Joint Undertaking and Built4People. The plan also calls for national programmes and living-lab style testbeds that are explicitly designed to dovetail with EU priorities and funding, using smart

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<sup>3</sup> <https://ani.pt/en/portugal-and-clean-aviation-establish-strategic-partnership-for-more-sustainable-aviation/>

specialisation strategies to connect domestic agendas with European partnerships and missions.

- The National Strategy for Emerging Technologies, coordinated by PLANAPP in collaboration with ANI and FCT, is a key public policy instrument aimed at positioning Portugal at the forefront of technological innovation in the coming decades. It identifies priority areas for investment and development—namely biotechnology, quantum technologies, and advanced materials—recognizing their high transformative potential and impact on the country’s economic and scientific competitiveness. Built on an evidence-based and collaborative approach, the strategy actively engages the scientific, business, and institutional communities to align policies, mobilize resources, and strengthen Portugal’s position within the European and global landscape, while addressing the territorial and societal challenges associated with the adoption of these technologies.

Several thematic strategies and action plans have also been developed in relation to the environment, sustainable bioeconomy and circular economy. They provide the guiding framework for research and innovation activities including partnerships in Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment).<sup>4</sup> The documents related to bioeconomy explicitly mention the Circular Bio-based Europe Joint Undertaking as the main public-private vehicle for collaborative R&I, while listing the EU Circular Bioeconomy Fund or EU and EEA sources such as Horizon Europe, EEA Grants and agricultural and maritime funds as primary financing for joint projects. At the same time, there are circular-economy measures tasking authorities to pursue “international circular agreements” for the acceptance and circulation of by-products, to gather EU and international best practices, and to involve collaborative labs, clusters and operators in those efforts, which presumes technical cooperation and shared standards across borders.

Regarding territorial development and cities (relevant for partnerships such as the Driving Urban Transition Partnership for instance), the second edition of the [National Circular Cities Initiative InC2](#) was launched in 2024 (the first edition ran between 2019-2023) by the Ministry of Environment and Climate Action. With a national scope but focused on local development, this initiative aims to improve local-based participatory planning practices and networked learning, as key conditions for accelerating the circular economy in cities. Next to this, there is the [Programa Nacional da Política de Ordenamento do Território \(PNPOT\)](#), the top-level instrument of the territorial management system, that serves as the reference framework for other territorial programs and plans, and as a guiding instrument for strategies with territorial impact.

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<sup>4</sup> For instance, Action Plan for Sustainable Bioeconomy: <https://apambiente.pt/apa/bioeconomia>; Strategic Guidelines for Primary Production Sectors in the Context of the Development of the National Strategy for a Sustainable Bioeconomy 2030, <https://www.gpp.pt/images/Destaques/Noticia/Bioeconomia/BioEconomia-RelatorioPrincipal-Visualizacao.pdf>; Sustainable Bioeconomy (RRF): [https://www.recuperarportugal.gov.pt/wp-content/uploads/2024/07/12\\_ComponenteBioeconomiaSustenta%CC%81vel\\_Final.pdf](https://www.recuperarportugal.gov.pt/wp-content/uploads/2024/07/12_ComponenteBioeconomiaSustenta%CC%81vel_Final.pdf); Mapping Portugal's bio-based potential: <https://biconsortium.eu/publication/mapping-portugals-bio-based-potential>; Blue Bioeconomy Pact: <https://inovamar.pt/en/blue-bioeconomy-pact>; Action Plan for the Circular Economy in Portugal: <https://files.diariodarepublica.pt/1s/2017/12/23602/0005400073.pdf>; Blue bioeconomy Roadmap for PT: [https://www.ciimar.up.pt/wp-content/uploads/2023/09/roadmap\\_digital\\_hGBit\\_.pdf](https://www.ciimar.up.pt/wp-content/uploads/2023/09/roadmap_digital_hGBit_.pdf)

Besides the thematic strategies, the main national targets by 2030 are to:

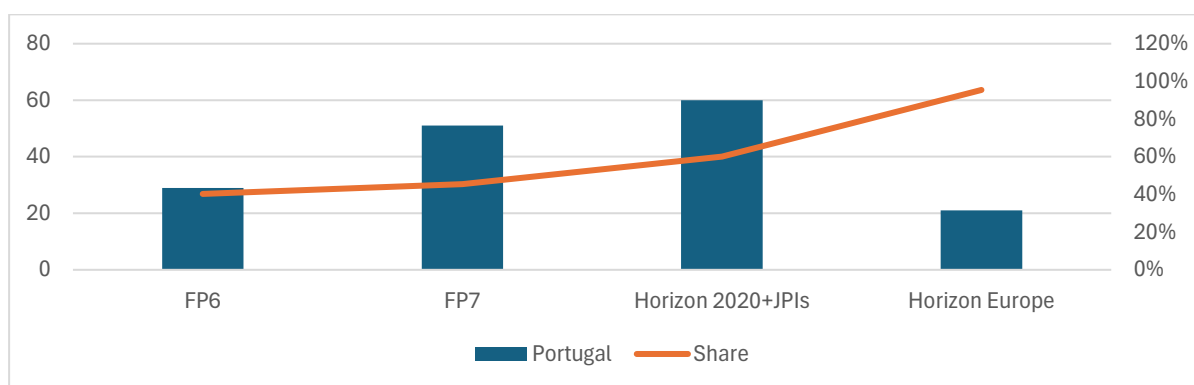
- Achieve 3% of GDP in R&D investment (1/3 public, 2/3 business), restoring growth from the post-2010 stagnation.
- Reach 50% tertiary graduates among 30–34-year-olds and ensure 60% of 20-year-olds participate in higher education.
- Achieve EU leadership in digital competence, internet access, and innovation readiness.

The document places particular emphasis in international and European collaboration and proposes a new cycle of international academic and entrepreneurial cooperation, aiming at promoting science-based entrepreneurship, fostering job creation and technology transfer, and strengthening university–industry–government collaboration. Beyond the university-centred alliances or those related to infrastructure (Atlantic International Research Centre), the strategy notes the PRIMA partnership for Euro-Mediterranean cooperation on water, agriculture and food systems, and ties Portugal’s emerging space strategy to deeper participation in ESA and related programmes.

With reference to missions and partnerships (ERA Action 10), the [ERA country report 2024 on Portugal](#), states that the country actively participates in the EU research and innovation missions under Horizon Europe, including the Cancer Mission, Adaptation to Climate Change Mission, Climate-Neutral and Smart Cities Mission, Soil Deal for Europe Mission, and Restore Our Ocean and Waters Mission. An analysis of Portugal’s participation in technology-based European partnerships, particularly in strategic priority areas for the European Union, shows that the country ranks among the top 10 in four partnerships in terms of secured funding: AI, Data and Robotics; Smart Networks and Services Joint Undertaking; Made in Europe; and Built4People.

Based on the ERA-LEARN and the BMR 2024 data, Portugal has been steadily increasing its participation in partnerships across the framework programmes, starting with a share of around 40% in FP6 and reaching 95% in Horizon Europe. The share of coordination of partnerships by Portuguese entities has also been increasing up to Horizon Europe. (Figure 1).

Figure 1: Number of partnerships that Portugal takes part in across the Framework Programmes



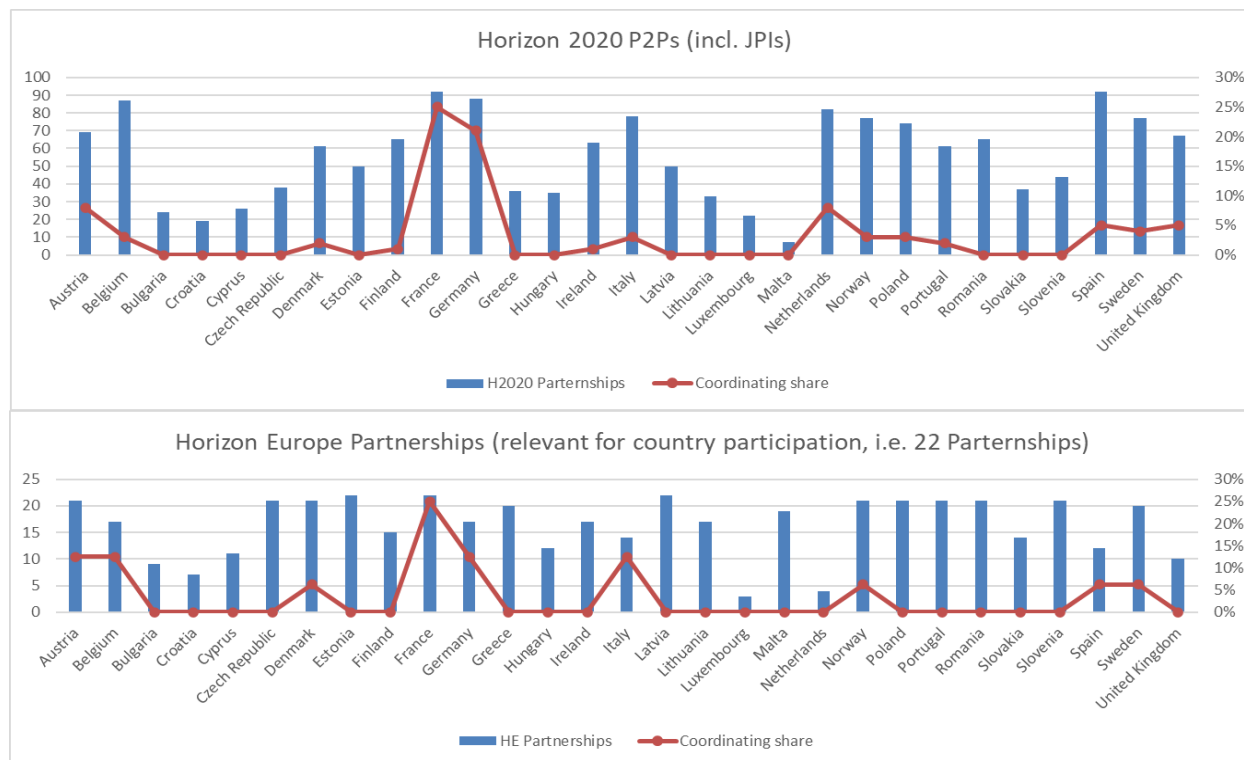
Source: ERA-LEARN database (cut-off date August 2025) and BMR2024 data.

(\*) Participation share: the number of partnerships a country participates in with any role (i.e. coordinator, participant, observer, other) divided by the total number of partnerships relevant for country participation.

Specifically, out of the 90 H2020 funded P2P networks (ERA-NETs Cofunds, etc.) and the 10 JPIs in H2020, Portugal participated in 60 of them (60%), while in Horizon Europe the country is present in 21 of the 22 partnerships that are relevant for country participation (95%). This is the same share as for Norway and Denmark in terms of the comparator countries and leaves behind

Czechia and Hungary with 11 and 17 participations respectively<sup>5</sup>. While Portugal enjoys the role of coordinator in some partnerships in Horizon 2020 together with Norway and Denmark, in Horizon Europe it is absent from this role with only Norway and Denmark, of the comparator countries, keeping such a role at the time of writing the report. (Figure 2)

Figure 2: No of partnerships and coordination shares for EU27 and selected Associated countries in H2020 and Horizon Europe



Source: ERA-LEARN database (cut-off date Nov 2024) and BMR2024 data.

(\*) No of partnerships: the number of partnerships a country participates in with any role (i.e. coordinator, participant, observer, other). Coordinating shares: the number of partnerships a country coordinates divided by the total number of partnerships.

Out of the 335 calls that have been launched by P2Ps in Horizon 2020, Portugal participated in 145, i.e. leaving behind all the comparator group of countries except Norway that participated in over 200 partnership calls in Horizon 2020. Regarding the number of projects, this was 397 for Portugal in H2020 partnerships, which is comparable to that of Czechia and much lower than Norway or Denmark. Czechia and Hungary have smaller research communities than Portugal and this can partly explain the smaller number of projects. However, the Portuguese research community is also larger than that of Denmark or Norway - Portugal around 45,000 researchers, Norway around 33,000, and Denmark around 44,000. As a result, although Portugal took part in a relatively high number of calls, the applications were not as successful as in the case of its peers in Norway, Denmark or even Czechia (where the ratio of projects/call was higher).

In Horizon Europe partnerships until now, Portugal has taken part in 43 out of the 118 calls. This number is comparable to that of Denmark and Norway. However, no sound conclusions can be made as the Horizon Europe partnerships are still running and new ones are being added (those under the Second Strategic Plan).

<sup>5</sup> The partnerships that were launched under the Second Strategic Plan are not included in the analysis.

Table 1: Participation in H2020 P2Ps (including JPIs)

	PT	CZ	DK	HU	NO	EU13 av.	EU14 av.	EU27 av.
No of H2020 partnerships	61	38	61	35	77	38	69	54
P2P coordinations	2	0	2	0	3	3	6	6
No of calls	145	98	121	105	208	114	186	151
No of projects	397	320	649	179	778	186	908	560

Source: ERA-LEARN database<sup>6</sup> (cut-off date August 2025).

Table 2: Participation in Horizon Europe Partnerships

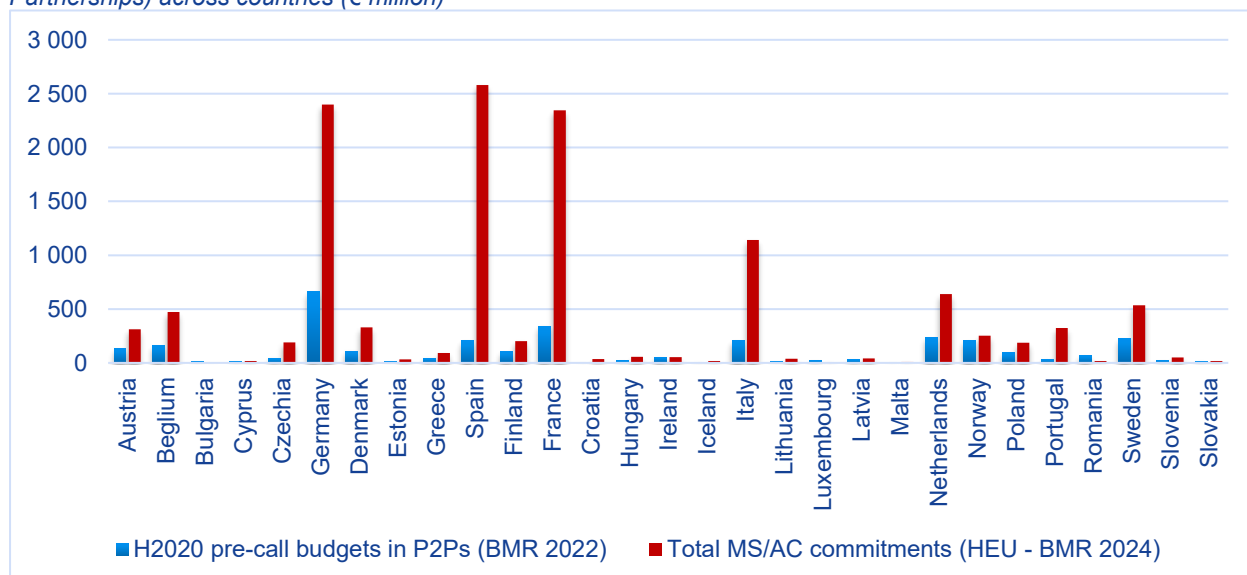
	PT	CZ	DK	HU	NO	EU13 av.	EU14 av.	EU27 av.
No of HEU partnerships	21	11	21	17	21	14	18	16
Co-funded Ps coordinations	0	0	1	0	1	0	1	1
No of calls	43	24	44	34	42	30	39	35
No of projects(*)								

Source: BMR 2024 data (partnerships and coordinations); ERA-LEARN database for calls (cut-off date Aug 2025).

(\*) Data on Horizon Europe projects funded by partnerships are not available yet.

In terms of national funds made available to support partnerships, in Horizon Europe, Portugal increased by almost 10 times the amount that was committed as pre-call budget for the Horizon 2020 Partnerships (from €34 million to € 323 million). Although the rest of the comparator countries also presented significant increases in their commitments across the two Horizon phases, there were not as high as that of Portugal (Czechia: 319% increase), Denmark: 199%, Hungary: 176%, and Norway: 20%). A clearly renowned commitment to European Partnerships in Horizon Europe is evident for Portugal.

Figure 3: Comparison of countries' pre-call budgets (H2020 Partnerships) and national commitments (HEU Partnerships) across countries (€ million)

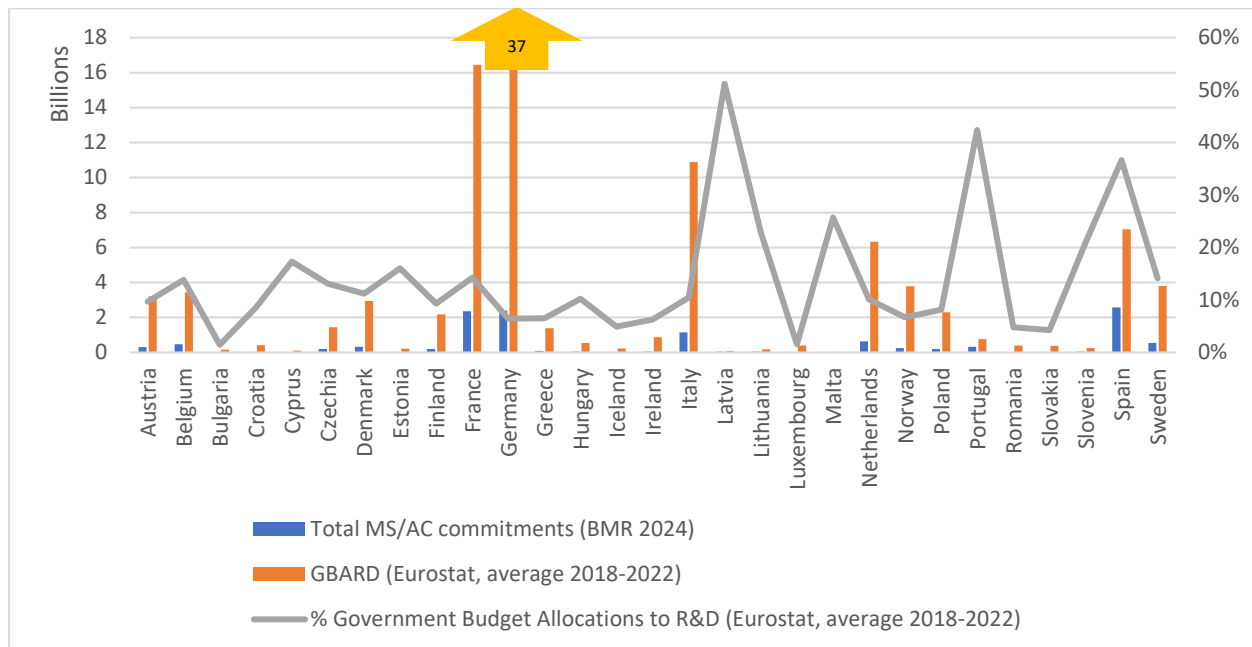


Source: ERA-LEARN for H2020 Partnerships (cut-off date Aug 2025). BMR 2024 data for HEU Partnerships.

<sup>6</sup> These figures are actually higher considering that around 20% of the financial data of the H2020 P2Ps have still to be updated by the P2P networks in the ERA-LEARN database.

Moreover, when the national contributions to Horizon Europe Partnerships are normalised by the government allocation in R&D (GBARD), Portugal presents the highest share (42%) behind Latvia (51%). This is way more than that of its peers with Czechia, Denmark and Hungary around 10-13% and Norway with only 6%.

Figure 4: Share of MS/AC commitments to European Partnerships in HEU compared to the country GBARD



Source: BMR 2024 data; Eurostat.

Based on the public officials that were interviewed, three motivations recur regarding the participation of Portugal in partnerships. First is **strategic internationalisation**, the desire to embed Portuguese actors in leading European networks and infrastructures, thus expanding visibility, learning and excellence. Second is **problem-driven alignment**, where partnerships are seen as curated ecosystems around urgent societal missions from health system transformation and rare diseases to climate-neutral mobility and blue economy transitions. Third is **capacity building and ability to share and shape European R&I agendas** by participation, whereby repeated exposure to European agenda-setting, membership in associations, and participation in working groups and State Representatives Groups steadily raise domestic capability and reputational capital.

*“Portugal is a small country, and our researchers feel that they should go international in order to be stronger and overcome the peripheral dimension that the country might have...European Partnerships give our community the possibility to participate in large-scale international projects... Funding is like the cement for all that, but the main purpose is collaboration, networking, and sharing of knowledge to increase impact.” (FCT official)*

*“Participation in the partnerships also drives the development of thematic strategies... It’s not only about the partnership instrument but the policy context in which it is discussed.” (ANI official)*

As noted by FCT officials, the Horizon Europe cycle has made participation a largely top-down political decision, with the agency mandated to join almost the full set and then justify each case on thematic fit and community capacity. Whereas this facilitates coherence with ERA, it also runs

the risk of thin engagement if resources are not scaled to match the interest from the research community.

The coordination of participation at the national level is quite effective among the two main funding agencies of the country (FCT and ANI), while having the same people in key positions, e.g. in State Representatives Groups (SRGs), or National Contact Points (NCPs) also ensures early information and thus important insights and contributions to shaping research and innovation agendas across the European and national/ regional levels.

*“... we follow all the discussion and negotiation at European level... having the same people involved in the SRGs and in the boards is fundamental and it's something the role of the NCPs should be highlighted as important.” (ANI official)*

Regarding the perceived **impacts from participation at the community level**, partnerships have deepened industry-academia ties, created earlier access to topic design, and opened brokerage circuits that would otherwise be hard to enter. At the **agency level**, NCP networks and board roles have elevated ANI's convening power, while FCT's near-universal presence in co-funded partnerships has Portugal as a reliable partner in pan-European calls. At the **regional level**, CCDRC's participation has catalysed an institutional learning curve, widened the repertoire of funding options for local actors, and fostered inter-agency trust through operationalised Memorandums of Understanding. These are not yet transformative outcomes, but they are the building blocks of systematic capacity.

*“Partnerships are not only about the money... The continuation between calls allows companies to have some cycle to fund projects, because even if they want to continue something with good results, they cannot do it alone at national level.” (ANI official)*

Three tensions recur across the interviewees. The first is **complexity**. Even experienced NCPs acknowledge the challenge of keeping abreast regarding the work-programmes and calls of partnerships and other related instruments, while overlapping themes are split across different instruments. In addition, stakeholders find it **difficult to navigate association memberships** and fees. Greater transparency, shared administrative backbones, and cross-partnership training are repeatedly requested.

The second is **co-funding scarcity and regulatory fit**. Time limits on national grants, domestic rules that do not mirror European flexibilities (particularly when using ERDF for co-funding partnerships) and the dual-application requirements all reduce the possibility of enjoying the full potential of partnerships.

The third is **inclusion and critical mass**. The tilt of some Joint Undertakings toward one project per topic, strict membership rules, and large consortia thresholds create high barriers to entry for SMEs and smaller research groups. There is concern that repeated exclusion could discourage capable actors. Excellence-seeking without engaging at the same time the domestic R&I ecosystem might erode Portuguese networks. Several interviewees call for national thematic strategies and targeted brokerage to sustain both international excellence and national ecosystems.

*“Our companies are still learning that it is important for them to be involved in such consortia... it's not just about the funding, it's about being involved in the development of*

*innovative projects that can change their businesses 2, 3, 10 years from now.” (ANI officials)*

Overall, appreciation of the value and the multiple opportunities offered by partnerships is high. At the same time, interviewees advocate clearer demarcation between partnership, simplification, systematic value-chain analyses in SRIAs for complex sectors, more open and transparent Joint Undertakings, and regularised cross-partnership data that mirror Horizon’s analytics dashboards. On the national and regional side, the call is for modest but catalytic changes in rules and funding envelopes, alignment of co-funding rates to avoid territorial inequities, alignment of ERDF procedures if they are also to be used for partnership projects, and selective development of thematic programmes in domains where repeated participation can compound into industrial capabilities. The interviews also show the pay-off of brokerage, consultation procedures and dual NCP–delegate roles as features that amplify a small country’s influence in a crowded field.

Portugal’s engagement with European Partnerships is best understood as a deliberate act of insertion into European policy and value chains rather than a mere chase for additional funding. The portfolio is broad where network effects dominate, as in health, and more strategically concentrated where industrial path-building is at stake, as in semiconductors and selected mobility niches. Alignment is achieved less by master plan than by iterative exchange and learning across ministries, agencies, regions and associations. The system works, even under tight budgets, when rules are predictable, information flows early, and domestic conveners translate European dynamics into timely national mobilisation. It stumbles when administrative layers multiply, when programming clocks are out of sync, and when openness narrows into exclusivity. The interviews of public officials collectively point to a feasible path forward that combines small regulatory fixes, targeted capacity investments, and sustained brokerage to convert presence into influence and participation into cumulative capability.

# 1. Portugal's Research and Innovation in an International Context

Portugal's [National Smart Specialisation Strategy \(ENEI 2030\)](#) explicitly ties Portugal's smart specialisation to international and European collaboration in research and innovation. It aligns its priority domains with Horizon Europe and EU policy frameworks and maps them to Horizon Europe clusters, signalling systematic engagement with European partnerships and consortia. It further identifies European programmes (Cohesion Policy funds, the Recovery and Resilience Plan and Horizon Europe) as core financing channels that complement national instruments, reinforcing the expectation that Portuguese organisations will join multi-country projects and networks.

As stated above, internationalization is also cited in the [Technological and Business Innovation Strategy \(2018-2030\)](#), where, besides facilitating companies' access to emerging markets at an international level and attracting foreign direct investment, the close collaboration with international partnerships in science and technology is noted, along with facilitating Portugal's participation in major international institutions. In this context, ANI, the major innovation agency in the country, should participate in investment attraction and external promotion activities, as well as continue its activities in bilateral, regional, and international cooperation under international programs.

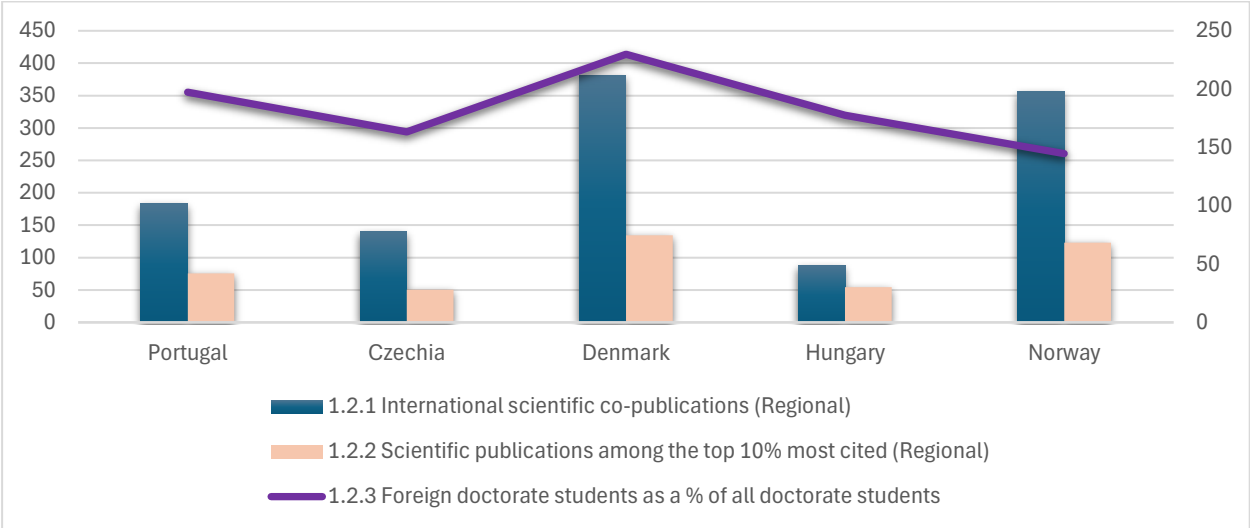
Based on the European Innovation Scoreboard (2025), Portugal is a Moderate Innovator, performing at 90.7% of the EU average and ranking 16th among EU Member States. The relative strengths lie in the direct and indirect government support of business R&D, the share of foreign doctorate students as a % of all doctorate students, as well as the public-private co-publications. The relative weaknesses refer to the innovation expenditures per person employed, the venture capital expenditures, and the exports of knowledge-intensive services as well as medium and high-tech products.

More specifically, regarding the three dimensions related to internationalisation (international co-publications, most cite publications and share of foreign doctorate students), Portugal's scores are usually after those of Denmark and Norway expect in the case of foreign doctorate students where it holds the second place. (cf. Figure 5)

The [OECD Review of Higher Education, Research and Innovation: Portugal \(2019\)](#) painted a picture of an internationally connected research base for Portugal and growing engagement with EU funding, alongside a continuing challenge to attract and retain top researchers and to deepen research–industry collaboration within global networks. The report highlights the gains of international collaboration for small economies and research communities, although Horizon 2020 funding flows mainly to universities and public research bodies, with SMEs nevertheless performing comparatively well in SME-specific instruments. It also notes that almost half of Portugal's publications are co-authored with foreign partners and that cross-sector co-publication with business is present but slightly below the OECD average.

On researcher mobility, based on a 2016 snapshot, the report concludes that those who left tended to be associated with higher-impact work than those who stayed, while returnees' citation impact did not stand out, suggesting Portugal was not fully capturing learning effects from careers abroad. The report added a complementary signal from inventors on patents, where the share of Portuguese inventors residing abroad was among the highest in Europe in earlier decades.

Figure 5: EIS 2025 indicators for 'Attractive research systems' for Slovenia and the comparator countries

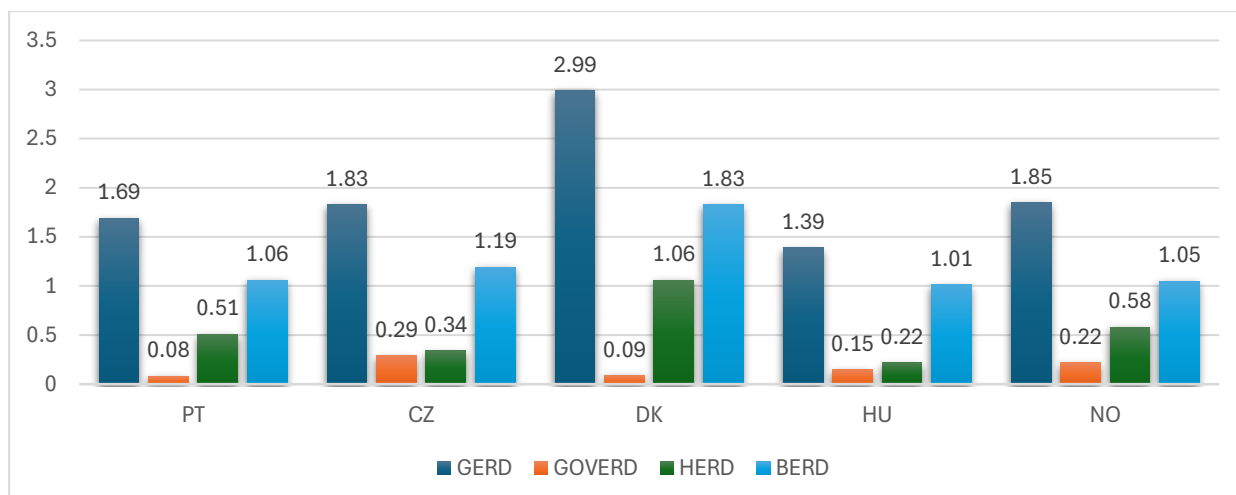


Source: European Innovation Scoreboard 2025. Elaborated using the data provided at <https://ec.europa.eu/research-and-innovation/en/statistics/performance-indicators/european-innovation-scoreboard/eis>

Looking at the basic R&I indicator across the comparator group, Denmark stands out in almost all of them (gross domestic expenditure on RD – GERD, higher education expenditure on R&D – HERD, business enterprise expenditure on R&D – BERD) except the government expenditure on R&D (GOVERD). Leaving Denmark aside, Portugal holds a relatively good rank in relation to GERD that is comparable to that of Norway. This is linked to a relatively high HERD, that is comparable to that of Norway. Yet, the BERD for Portugal is among the lower in the comparator group, although it does not fall far behind the second in the rank (Czechia: 1.19). Similarly, the government expenditure on R&D is the lowest in the group although not far from that of Denmark. (Figure 6)

While the target of 3% share of GDP as share of GDP is still being pursued, Portugal presents a rather steady picture since 2021 with the GERD around 1.69. At the same time, while the government expenditure on R&D (GOVERD) stays the same across the years, there is a slight increase in relation to the business sector expenditure (BERD) alongside a slight decrease in the higher education sector (HERD). (Figure 7)

Figure 6: Basic R&D indicators for Portugal and the comparator countries (% of GDP - 2023 values)

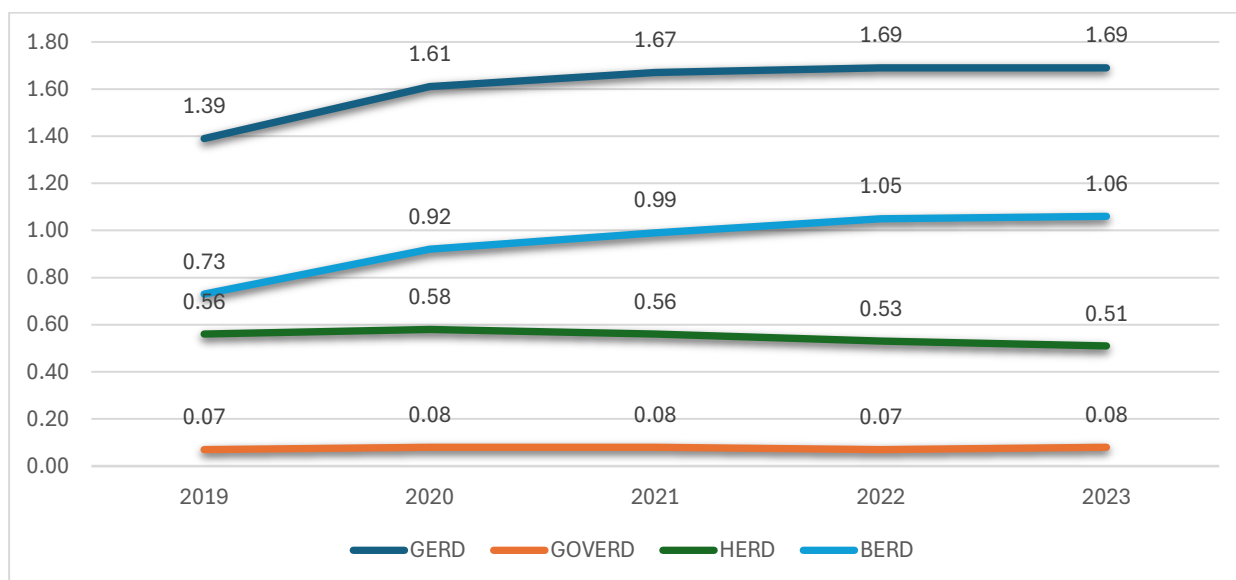


Source: OECD STI Indicators (2025)

The majority of GERD (62%) is performed by businesses in Portugal. This is comparable to Czechia and Denmark while the highest and lowest values are shown in the case of Hungary (72%) and Norway (56%). The higher education sector performs the second largest share (30%) as in the case of Denmark (35%) or Norway (31%) with the other comparator countries presenting shares lower than 20% (Czechia: 18%, Hungary: 15%).

Accordingly, the government sector in Portugal performs the smallest share of GERD (4%) as Denmark (3%) which is far behind the shares of the other countries (Czechia: 15%, Hungary and Norway around 11%), possibly reflecting the differences in the legal status and formats of their research organisations.

Figure 7: R&D expenditure in Portugal (% of GDP)



Source: OECD STI Indicators (2025)

Internationalisation and alignment with European research and innovation priorities enjoys strong political support in Portugal. They are strongly highlighted in the key strategies and policy documents, fostering participation in European partnerships and consortia while leveraging EU funds as key financing tools. Portugal is a Moderate Innovator, ranking 16th in the EU, with strengths in public support for business R&D and international research collaboration in the global but weaknesses in innovation and venture capital spending and knowledge-intensive exports. While Portugal's R&D intensity remains below the 3% of GDP target, business investment in R&D is rising, and higher education maintains a strong role. In a well-connected research base with extensive international co-publication, however, challenges exist in retaining top researchers and deepening research-industry ties.

## 2. Who are the key R&I funders in Portugal?

The key actor for research and innovation at the national level is the [Ministry of Science, Technology and Higher Education \(MCTES\)](#) with the mission to formulate, conduct, execute and evaluate the national policy for science, technology and higher education. Other key activities of the Ministry include: the promotion of the development, qualification, competitiveness and international evaluation of the S&T system; the organisation of S&T activities in the key domains of the international cooperation by promoting the diffusion of knowledge and technologies; participating in the international organisations; and contributing to the definition of EU S&T policy. In addition, the [Ministry for the Economy \(ME\)](#) is responsible for designing, implementing and evaluating the policies regarding: competitiveness; innovation; the internalisation of enterprises and the promotion of foreign trade; the promotion and attraction of foreign investment; tourism; consumer protection; public works; transport and communications.<sup>7</sup>

In 2019, MCTES created the [PERIN Network](#) to promote the global participation of Portugal's R&I, encouraging partnerships at the international and European levels, such as Horizon Europe. PERIN involves several agencies but the Foundation for Science and Technology (FCT) and the National Innovation Agency (ANI) have the prevalent roles<sup>8</sup>. The [Foundation of Science and Technology \(FCT\)](#) is the main national public agency that funds research in science, technology, and innovation in all areas of knowledge. FCT is a public organisation with administrative and financial autonomy, under the aegis of the MCTES. FCT has also established a [Global Science and Technology Partnership](#) (GoPortugal) based on international cooperation that has supported a series of partnerships with institutions around the world. The [National Innovation Agency \(ANI\)](#) is a state-owned agency funded by MCTES and ME that develops and coordinates activities to support technological and business innovation in Portugal, such as fiscal and financial incentives programmes, contributing to the consolidation of the National Innovation System (NIS). (ERA country report Portugal 2023).

The key Portuguese actors in participating in partnerships based on the ERA-LEARN database<sup>9</sup> are:

- The Foundation for Science and Technology (FCT)
- The Regional Fund for Science and Technology (FRCT)
- The National Institute for Agricultural and Veterinarian Research (INIAV)

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<sup>7</sup> [TRIMIS - Portugal](#)

<sup>8</sup> The other agencies included in PERIN are focused on specific areas of R&I, such as the Agência Espacial Portuguesa (Portugal Space), the Agência de Investigação Clínica e Inovação Biomédica (AICIB), Agência Nacional Erasmus+ Educação e Formação, and the Direção-Geral do Ensino Superior (DGES). (ERA country report Portugal, 2023)

<sup>9</sup> [https://www.era-learn.eu/network-information/organisations?cid=2bc0a5f75715435dbc4c30992244c001&el\\_type=](https://www.era-learn.eu/network-information/organisations?cid=2bc0a5f75715435dbc4c30992244c001&el_type=)

- The National Institute of Health Dr. Ricardo Jorge (INSA)
- The National Innovation Agency (ANI)
- The Ministry of Health (MS)
- The Directorate General for Energy and Geology (DGEG)
- The Commission for Coordination and Regional Development of the Centre (CCDRC)
- The Agency for Clinical Research and Biomedical Innovation (AICIB)

Alignment between national and European priorities is a **core selection criterion** for partnership participation. Coordination is ensured through collaboration among the MCTES, FCT, ANI, and relevant sectoral ministries (e.g., Economy, Infrastructure). Strategic decisions are informed by:

- past performance and stakeholder feedback,
- alignment of thematic areas with EU policy directions, and
- formal financial commitments and in-kind contributions.

Sectoral agencies such as AICIB (clinical research and biomedics), ANACOM (communications) and ANAC (civil aviation) manage participation and implementation, depending on the domain. Interest in participating in certain partnerships may also come from industry clusters, notably in aeronautics and materials. The adoption of Memoranda of Cooperation, as in Clean Aviation, further integrates national actors into European value chains.

Portugal enjoys good collaboration and coordination among the key players at the national level with FCT and ANI playing central roles, advising ministries and preparing strategic frameworks. They are mandated to track the European Research Area agenda and represent Portugal in the Partnership Knowledge Hub for European Partnerships, and the ERA mutual-learning on Missions. In addition, the National Contact Points (NCPs) are instrumental in providing continuity across programme cycles, often serving multiple roles (e.g., Programme Committee members, strategy advisors, and stakeholder liaisons).

Below follow additional information and insights that were shared during the interviews that were carried out for the purpose of the report.

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## 2.1. *Foundation for Science and Technology (FCT)*

FCT covers the full spectrum from fundamental to applied research and, by political decision, participates in almost the entire suite of European Partnerships, using these instruments to internationalise the science base, attach to European infrastructures, and align with the European Research Area.

Based on FCT data (Dec. 2025), the calls that resulted in the largest numbers of applications refer to THCS, Biodiversa+, DUT, WATER4ALL, CETP and ERA4HEALTH. The partnerships with the highest success rates for Portugal (no. of funded proposals divided by number of eligible proposals with Portuguese participants) were CETP, DUT, WATER4ALL, AGROECOLOGY, and SBEP. The overall success rate for the proposals submitted under co-funded partnerships

reaches 37%, which is much higher than that achieved in the case of Horizon Europe projects (16.17%). FCT also manages part of the calls under the Chips JU and those in synergy with the 'older' KDT JU. These calls have absorbed almost half (42%, €13.9 million out of €33.3 million) of the total funding allocated by FCT in European Partnerships, while the success rate is of medium range (36%) in comparison to the other partnerships. The data indicate the strategic importance of certain sectors like semiconductors, as well as the interest of Portuguese researchers in the areas of health, agriculture, the blue economy and the environment.

Overall, in Horizon Europe partnerships, FCT has supported 185 projects under European Partnerships which amounted to € 19.9 million (i.e. 93.6% of the committed state budget).

*Table 3: Calls, success rates and funding for the European Partnerships managed by FCT*

Partnerships managed by FCT	Submitted eligible proposals	Funded proposals	Success rate
<b>Co-funded partnerships</b>	<b>389</b>	<b>146</b>	<b>37.53%</b>
AGROECOLOGY	11	6	54,55%
AHW	10	5	50,00%
BIODIVERSA+	77	22	28,57%
CETP	33	19	57,58%
DUT	36	21	58,33%
EPFUTUREFOODS	15	7	46,67%
EPPERMED	11	4	36,36%
ERA4HEALTH	31	8	25,81%
ERDERA	6	1	16,67%
SBEP	27	14	51,85%
THCS	98	20	20,41%
WATER4ALL	34	19	55,88%
<b>Institutionalised Partnerships</b>	<b>41</b>	<b>39</b>	<b>35,90%</b>
Chips JU (+ KDT JU) (FCT part)	41	39	35,90%
<b>Total</b>	<b>430</b>	<b>185</b>	<b>43.02%</b>

Source: FCT data (Dec. 2025)

Based on the FCT officials, participation in European and international partnerships is viewed as a strategic instrument for visibility, funding access, and knowledge exchange. The country's motivation extends beyond financial returns, emphasising network building, scientific collaboration, and integration into global value chains.

*“The driver is to have our community more internationalised and therefore have access to a bigger network, more opportunities, more knowledge... it is not just the funding.”  
(FCT officials)*

The Horizon Europe cycle has made participation a largely top-down political decision, with the agency mandated to join almost the full set and then justify each case on thematic fit and community capacity. FCT, for its part, documents each partnership against national strategies where they exist, and increasingly opens seats to other public bodies to thicken domestic coalitions.

Officials reported a positive alignment between expectations and outcomes in European partnerships. Participation has also strengthened its scientific community's international

reputation and catalysed national policy alignment with European initiatives. At the same time, certain challenges pertain such as,

- Administrative and regulatory complexity across different partnerships and instruments.
- Budget constraints that require prioritisation of investments in a small-country context.

*“There are many funding regulations within the partners... With so many different regulations, it’s very hard to obtain conditions of success... The burden is known — there’s lots of literature and position papers coming from the partnerships themselves. Reducing the administrative burden would be very important.” (FCT officials)*

FCT interviewees summarised the key positive impacts which had to do with the strengthened global engagement of universities and research centres, targeted national investments aligned with European priorities. The collaboration between companies and research centres is also enhanced while Portugal sees an increased participation in shaping EU R&I agendas.

In addition, co-funded partnerships offer opportunities for collaboration in smaller projects. This enables experimentation, as well as inter-disciplinarity and closer collaboration. This middle, preparatory step for larger programmes like Horizon is valuable for less experienced or early-career researchers. The opportunity to continue collaboration in the same partnership or other settings is also key for gradual innovation scaling and long-term engagement. A balance between large and small projects is considered crucial.

At the same time, the need for simplification and harmonisation across European instruments was emphasised. The multiplicity of rules, differing co-funding rates, and administrative complexity hinder broader participation, and the possible overlapping with other European initiatives (e.g., IPCEIs, EDIHs) creates complexity. Portuguese institutions also rarely coordinate large projects, due to the highly administrative burden and limited funds.

Despite the constraints, Portugal demonstrates strong institutional maturity and strategic coherence in its engagement with European R&I framework. Its integrated governance model, anchored by FCT, ANI, and sectoral ministries, combined with proactive stakeholder engagement, provides a solid foundation for sustained participation and impact.

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## 2.2. The National Innovation Agency (ANI)

ANI is responsible to guarantee the national representations and disseminate the funding opportunities for all domains where co-programmed partnerships and Joint Undertakings dominate the landscape, especially the digital and industry domain (there is an agency responsible for space – PT Space), climate, energy and mobility and biotech including Circular Bio-based Europe. Its staff frequently hold a dual role as National Contact Points and State Representatives or delegates, shortening feedback loops between Brussels and domestic communities, and enabling both agenda-setting and hands-on guidance to prospective applicants. This dual positioning is recurrent in the interviews and is consistently framed as a practical advantage for a smaller Member State.

Based on the data that ANI keeps, the greatest interest of the Portuguese research community (in terms of submitted proposals) lies in the areas addressed by AI-Data-Robotics, Made in Europe and Built4People, as well as the SNS JU and the CBE JU. This denotes attraction to the sectors of digital industry and space, climate, energy, and mobility, the circular economy and the environment, which resonates with the key strategic priorities set by the country.

The highest success rates are noted in the institutionalised partnerships related to semiconductors, aviation, rail, and high-performance computing. Although these partnerships may show the highest success rates, however, the number of proposals as well as the funding captured remains relatively low.

Table 4: Calls, success rates and funding for the European Partnerships managed by ANI

Partnerships managed by ANI	Submitted proposals	Funded proposals	Success rate
AI, Data and Robotics	281	33	11,74%
Made in Europe	141	25	17,73%
Batt4EU	67	15	22,39%
Processes4Planet	66	12	18,18%
Built4People	147	10	6,80%
2ZERO	24	5	20,83%
ZEWT	30	7	23,33%
AI, Data and Robotics - Made in Europe	13	2	15,38%
CCAM	24	4	16,67%
Photonics	32	2	6,25%
Clean Steel	10	1	10,00%
Made in Europe - Photonics	7	1	14,29%
2ZERO & Batt4EU	1	1	100,00%
Photonics - Made in Europe	4		0,00%
<b>Total Co-programmed Partnerships</b>	<b>847</b>	<b>118</b>	<b>13,93%</b>
SNS JU	108	23	21,30%
CBE JU	198	23	11,62%
CLEANH2 JU	49	6	12,24%
CHIPS JU (ANI part)(*)	8	8	100,00%
CLEAN AVIATION JU	7	5	71,43%
Europe's Rail JU	10	7	70,00%
SESAR JU	14	8	57,14%
EUROHPC JU (*)	7	4	57,14%
<b>Total Institutionalised Partnerships</b>	<b>401</b>	<b>84</b>	<b>21,18%</b>
<b>Overall total</b>	<b>1248</b>	<b>202</b>	<b>16,18%</b>

Source: ANI (Aug 2025, CHIPS JU updated data May 2026)

(\*) Co-managed by FCT.

Regarding the participation of companies in partnerships, it is worth mentioning that the highest shares of the project funding (>50%) is secured for businesses in the cases of rail (Europe's Rail JU), road (2ZERO) and waterborne transport (ZEWT), air traffic management (SESAR JU), as well as digital (AI-Data-Robotics), manufacturing (Made in Europe) and circular economy (CBE JU). Overall, Portuguese teams participated in 202 projects until now (Dec. 2025) under the co-programmed and institutionalised partnerships, the total budget of which accounted for almost €

131.5 million (€77 mio under the co-programmed and €61.5 mio under the institutionalised), around 45% of which was allocated to companies.

ANI officials echoed the belief that European partnerships play a central role in Portugal's R&I ecosystem. They are not seen merely as funding mechanisms but as key tools for collaboration, internationalisation, and capability-building. This strategic intelligence increases Portugal's capacity to anticipate and prepare and allows Portuguese stakeholders to better navigate Horizon Europe and align their research agendas.

*“Partnerships provide advance knowledge of upcoming topics and strategic directions.”  
(ANI officials)*

At the same time, partnerships accelerate national learning and critical mass in areas where Portugal is developing new capabilities (e.g., semiconductors, hydrogen, batteries, circular bioeconomy).

*“Partnerships provide a chance to grow know-how in emerging areas, even where national expertise is still limited.” (ANI officials)*

Despite the clear benefits, ANI officials identified a series of obstacles, some internal to Portugal, others structural to Horizon Europe. Structural simplification, more Inclusive and Open Partnership Ecosystems encouraging newcomers and widening-country participants, and the need for EU-Level monitoring dashboards of participation in partnerships are needed at the EU level.

Supporting SMEs is another area of concern alongside attracting large companies. There are difficulties in mobilising companies, particularly SMEs, to participate actively and integrate into European value chains. SMEs face challenges in participating in partnerships including the 60% funding rate requiring 40% co-financing, the limited staff resources, reluctance in seeing the value of entering industrial associations and difficulties in entering established consortia. The latter is particularly relevant for the Joint Undertakings dominated by big industry players, some of which often fund only one project per topic, making them highly competitive.

Across all ANI interviews, the message is clear: European Partnerships are essential to Portugal's strategic positioning in European R&I, enabling access to networks, shaping R&I agendas, and strengthening national ecosystems in emerging domains. They repeatedly underline that the benefits are substantial - strategic visibility, networking, capacity building, and influence. Yet challenges persist: lack of thematic national programmes, SME constraints, complexity, and limited influence in some JUs. ANI sees the future of partnerships as highly positive but dependent on reforms, both at the EU level and nationally.

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### ***2.3. The Commission for Coordination and Regional Development of the Center (CCDR-C)***

CCDR Centro represents a notable regional actor in partnerships. It mobilises ERDF to co-fund participation in selected co-funded partnerships and, through memoranda and joint calls with

FCT, has established a workable division of labour and a safety valve when national envelopes are exhausted. Based on the data for the partnerships managed by CCDR-C, the specialisation of the regional actors in personalised medicine and urban transitions is notable as well as the limited level of absorption of the committed funds (26%: € 975,000 spent of the € 3.850 million).

Table 5: Calls, success rates and funding for the European Partnerships managed by CCDR-C

Partnerships managed by CCDRC	Submitted full proposals	Funded proposals	SUCCESS RATE
DUT	9	4	44,44%
SBEP	4	1	25,00%
EPPERMED	4	3	75,00%
THCS	13	1	7,69%
<b>Cofunded Partnerships</b>	<b>30</b>	<b>9</b>	<b>30,00%</b>

The interview with CCDR Centro highlights how the introduction of European Partnerships, combined with the ability to use ERDF funds in 2021–2027, has transformed the region’s approach to international research collaboration. The partnerships offered an unprecedented opportunity to “*leverage regional funding to enhance participation in EU research initiatives,*” allowing CCDR-C to promote excellence and competitiveness among regional stakeholders. Their motivation centred on strengthening international engagement, building capacity, and aligning the region more closely with European innovation ecosystems. Partnerships provided a bridge between regional actors and the European Research Area, enabling a shift from locally oriented research support toward large-scale, transnational collaboration.

Partnership participation was carefully aligned with the regional Smart Specialisation Strategy (RIS3), operational programme priorities, and stakeholder consultations. CCDR-C ultimately committed funds to four partnerships (THCS, EP PerMed, DUT and SBEP) selected for their relevance to regional strengths and existing institutional expertise. This ensured that investments complemented existing instruments instead of duplicating them, adding a transnational dimension previously missing from the regional portfolio.

However, administrative and regulatory challenges emerged: the dual application process, where stakeholders must first apply at European level and then submit a separate application in Portuguese to CCDR-C under a dedicated call to unlock ERDF funds. Additional constraints such as repeated eligibility checks, and the need for regional evaluations even after EU approval create heavy administrative burdens. CCDR-C also faced cases where companies that were initially deemed eligible were later found ineligible, leading to a decision to restrict ERDF support to academic and public research bodies.

Despite these obstacles, participation in European Partnerships generated substantial benefits for the region. Local institutions welcomed the opportunity to access European networks. The experience also broadened CCDR-C’s strategic outlook, strengthened internal coordination, and deepened cooperation with national agencies, especially FCT. CCDR-C’s memoranda with FCT, and mutual backing when budgets are exhausted showcase a workable governance model for multi-level co-funding. This inter-institutional collaboration, described as unusually strong compared to other countries, has improved policy coherence and trust. At the same time, national constraints, such as limited FCT budgets, rigid legal frameworks, and the 85% ERDF co-funding rate, create inequities across regions and discourage some applicants, who “*still prefer national funding due to 100% co-funding and simpler procedures.*”

Looking forward, CCDR-C identifies several areas where improvements are required at both European and national levels. At EU level, the most urgent need is to “*better align the programming timelines between ERDF and Horizon Europe*,” as timing discrepancies have already prevented participation in strategically relevant partnerships such as raw materials. At national level, CCDR-C calls for regulatory simplification, alignment of co-funding rates with EU norms, and the removal of unnecessary administrative burdens. Overall, CCDR-C’s experience demonstrates that regional participation in European Partnerships is both feasible and impactful, but long-term success will depend on procedural simplification, better timing coordination, and sustained investment in institutional capacity.

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## 2.4. Directorate-General for Energy and Geology (DGEG)

DGEG brings a policy ministry perspective within the Driving Urban Transitions partnership. It emphasises partnerships not as mere funding conduits but as structured spaces to test solutions for decentralised energy, energy communities and integrated urban systems, while learning across diverse national experiences and municipal capacities. Partnerships also help bridge policy ambitions and research outputs, enabling researchers to orient their work toward common European goals while fostering dialogue across countries and disciplines. This positioning elevates partnerships beyond the role of supporting R&D: they strengthen coherence between national policies, institutional strategies, and European ambitions.

DUT in particular is framed as a tool for aligning Portugal’s sustainable cities agenda with broader EU transitions in mobility, circularity, and energy systems as well as an opportunity to explore the increasingly central role of municipalities in energy transitions. To prepare for participation, DGEG coordinated with FCT and brought together six organizations representing regulators, research funding bodies, and sectoral stakeholders. Early experiences have been very positive, with strong engagement from universities and municipalities, and a high level of interest across the research community.

Portugal also finds synergies between DUT, the Cities Mission, and the Clean Energy Transition Partnership (CETP). While some coordination exists informally, the European Commission should help formalize cooperation through regular joint events or structured cross-partnership exchanges. At the national level, participation in DUT has also revealed structural barriers: Portugal’s governance system lacks an intermediate regional administrative layer, creating challenges in implementing energy and sustainability policies at the municipal level. Additional obstacles stem from political turnover, fragmented organizational participation, and uncertainty about long-term practical impacts.

Overall, the impacts of DUT participation have been largely positive. The partnership has strengthened cross-sector cooperation, stimulated high levels of engagement, and helped Portugal explore new funding mechanisms, particularly through discussions on using cohesion funds for R&I. DUT has been very useful in promoting dialogue between stakeholders, contributing to a more integrated national ecosystem. Despite the obstacles, Portugal’s involvement in DUT reflects a strong strategic commitment to sustainable urban transitions, with decentralized energy systems viewed as a cornerstone of future climate-neutral and smart cities.

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## 2.5. Agency for Clinical Research and Biomedical Innovation (AICIB)

Portugal's engagement in health-related European Partnerships is strongly shaped by the role of AICIB, a public-private agency created in 2018 under both the Ministry of Health and the Ministry of Science, whose operations began in 2020.

AICIB is responsible for managing health research and biomedical innovation and acts as a facilitator in partnerships by coordinating national delegates, providing experts and promoting synergies across initiatives. Its main motivation for participating in partnerships is clear: these initiatives address urgent and shared health challenges, including rare diseases, cancer, brain research, and health systems transformation, topics of high relevance for Portugal. As a result, AICIB participates in all health partnerships, alongside FCT, and independently in Innovative Health Initiative.

AICIB officials highlight Portugal's commitment to engage in the health portfolio of partnerships despite limited national envelopes, due to the high value of the network effects, shared infrastructures and translational knowledge gains, as well as the opportunity to influence EU R&I agendas. National contributions to each partnership are modest (€250k for coordinators and €150k for participants) which limits the number of Portuguese teams that can be funded. Oversubscription has led AICIB to seek additional support from Portuguese regional agencies, but it has also forced it to scale back intensive promotional efforts and adopt a more cautious approach for dissemination of calls.

Nonetheless, partnerships are considered strategically valuable because they integrate Portuguese institutions into transnational networks, support knowledge transfer, and provide researchers access to advanced infrastructures and methodologies. In many cases, the collaborative dimension is considered more important than financial returns, with consortia often using partnership-based networks to apply subsequently for larger Horizon Europe calls.

For AICIB itself, participation has raised the Agency's visibility and credibility as a national and European actor, allowing it to expand its role in areas such as clinical trials (outside partnerships to avoid conflicts of interest). However, national regulations hinder full participation, specially because the rule limits financing to three years (with a possible one-year extension), effectively excluding Portugal from many clinical trial calls that require four to five years. Consequently, Portugal misses participation in some of the most impactful calls.

Changing the funding duration would allow Portuguese researchers to exploit the full potential of the partnerships in the health area, alongside greater contractual flexibility, and a more strategic approach to prioritisation that would enhance Portugal's performance and impact. At the same time, establishing a common administrative backbone across partnerships including harmonised procedures for call launch, topic selection, and evaluation, and systematic training and stronger peer-to-peer support to reduce duplication of effort among partnerships is also recommended. Despite the constraints, Portugal remains highly engaged, and benefits in collaborating, networking and visibility highlight the strategic importance of health partnerships for the country.

Portugal's participation in European Partnerships reflects a politically driven strategy to internationalise its R&I system, strengthen alignment with EU priorities, and integrate national actors into transnational networks, despite structural constraints and modest national budgets. Across all institutions and research domains, partnerships are consistently highlighted as strategically important for accessing knowledge, shaping agendas, increasing visibility, building capacity and critical mass in emerging areas. However, participation is hampered by administrative complexity, limited funding, SME participation challenges, and regulatory constraints. Overall, Portugal demonstrates strong institutional maturity, effective multi-level coordination, and high engagement in partnerships, but future impact will depend on simplification, more predictable and strategic national funding, and reforms at both national and EU level.

## 3. Who are the key R&I performers in Portugal?

### 3.1. Introduction

Portugal's research system is built around a set of highly research-intensive universities and leading research institutions that consistently appear as the country's strongest performers in scientific output, international collaboration, and participation in European R&I programmes. The major actors include:

#### **Research-Intensive Universities**

- University of Lisbon (ULisboa)

Portugal's largest and most research-productive university, hosting several top-tier schools such as:

- Instituto Superior Técnico (IST) – engineering, computer science, energy, aerospace
- Faculty of Sciences (FCUL) – physics, biology, chemistry, environmental sciences
- Institute of Social Sciences (ICS) – social sciences and humanities

ULisboa consistently leads national rankings in scientific publications and Horizon Europe participation.

- University of Porto (U.Porto)

Strong across engineering, health and biomedical sciences, and economics. Key research structures include:

- INESC TEC (associated laboratory)
- i3S – Institute for Research and Innovation in Health
- CIIMAR (marine sciences)

U.Porto is a national leader in technology transfer and spin-offs.

- NOVA University Lisbon

A highly internationalised and rapidly rising research university with strengths in:

- NOVA FCT (science & engineering)
- NOVA Medical School / IHMT
- NOVA SBE (economics & management)
- ITQB NOVA (life sciences & biotechnology)

NOVA is particularly strong in global collaboration and ERC grants.

- University of Coimbra (UC)

One of Europe's oldest universities, maintaining strong research intensity in health sciences, physics, materials, chemistry, law and humanities, marine and environmental research. UC participates heavily in European consortia and advanced research infrastructures.

- University of Minho (UMinho)

A major research hub in northern Portugal, strong in engineering (polymers, mechanical, electronics), advanced materials, social sciences, bioengineering and biomaterials. UMinho has strong links to industry and manufacturing clusters.

- University of Aveiro (UAveiro)

Particularly intensive in telecommunications and electronics (IT – Instituto de Telecomunicações), materials and nanotechnology, environment and marine sciences (CESAM), circular economy and clean technologies

### **Leading Research Institutions / Associated Laboratories**

- Champalimaud Foundation - world-leading biomedical research centre in cancer, neuroscience, and clinical innovation.
- Gulbenkian Institute for Science (IGC) - internationally recognised for fundamental biology, genetics, and evolution.
- INESC Group (INESC TEC, INESC ID, INESC MN) - a powerhouse for engineering, robotics, AI, data science, energy systems, and microelectronics.
- International Iberian Nanotechnology Laboratory (INL) - an international lab in Braga specialising in nanotechnology, materials, semiconductors, and advanced manufacturing.
- i3S – Institute for Research and Innovation in Health (Porto) - Portugal's largest biomedical research consortium, integrating three major institutions.
- Instituto de Medicina Molecular João Lobo Antunes (iMM Lisbon) - a leading medical research centre with strengths in immunology, neuroscience, and oncology.
- LIP – Laboratory for Instrumentation and Experimental Particle Physics - Portugal's central institute for particle physics and major participant in CERN collaborations.
- CESAM, CIIMAR, CCMAR - top environmental and marine research centres located respectively in Aveiro, Porto and Algarve.

The landscape also includes state Laboratories (LNEC – National Laboratory for Civil Engineering, INSA – National Institute of Health Dr. Ricardo Jorge, IPMA – Institute for Sea and Atmosphere, LNEG – National Laboratory for Energy and Geology) that contribute heavily to national strategic research in energy, geology, health surveillance, and marine environment.

Based on the Horizon Dashboard the top 20 participants in Horizon Europe projects include the following institutions:

Table 6: Top 20 Portuguese participants in Horizon Europe projects based on the EU net contribution (€)

Nr.	Organisation (ENG)	EU Net contribution (€)
1	UNIVERSIDADE NOVA DE LISBOA	42.801.836
2	UNIVERSIDADE DE COIMBRA	42.340.215
3	UNIVERSIDADE DO MINHO	38.462.404
4	INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA	38.014.124
5	UNIVERSIDADE DE AVEIRO	34.597.367
6	UNINOVA-INSTITUTO DE DESENVOLVIMENTO DE NOVAS TECNOLOGIAS-ASSOCIACAO	33.586.190
7	FUNDACAO GIMM - GULBENKIAN INSTITUTE FOR MOLECULAR MEDICINE	33.032.381
8	INSTITUTO SUPERIOR TECNICO	31.712.734
9	FUNDACAO D. ANNA DE SOMMER CHAMPALIMAUD E DR. CARLOS MONTEZ CHAMPALIMAUD	31.221.822
10	UNIVERSIDADE DO PORTO	26.923.613
11	INTERNATIONAL IBERIAN NANOTECHNOLOGY LABORATORY	24.836.674
12	NOVA ID FCT - ASSOCIACAO PARA A INOVACAO E DESENVOLVIMENTO DA FCT	17.395.295
13	FUNDACAO CALOUSTE GULBENKIAN	17.369.095
14	FCIENCIAS.ID - ASSOCIACAO PARA A INVESTIGACAO E DESENVOLVIMENTO DE CIENCIAS	16.773.578
15	ASSOCIACAO BIOPOLIS	16.167.399
16	INSTITUTO DE BIOLOGIA MOLECULAR E CELULAR-IBMC	14.221.706
17	CENTRO DE ESTUDOS SOCIAIS	13.632.903
18	UNIVERSIDADE DE EVORA	12.498.522
19	INEGI - INSTITUTO DE CIENCIA E INOVACAO EM ENGENHARIA MECANICA E ENGENHARIA INDUSTRIAL	11.483.298
20	INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLOGICA	10.812.462

Source: Horizon Dashboard, Oct 2025.

[https://dashboard.tech.ec.europa.eu/qs\\_digit\\_dashboard\\_mt/public/sense/app/1213b8cd-3ebe-4730-b0f5-fa4e326df2e2/sheet/d1435e56-cdee-4f5f-8b0d-f49d41ffbd6c/state/analysis](https://dashboard.tech.ec.europa.eu/qs_digit_dashboard_mt/public/sense/app/1213b8cd-3ebe-4730-b0f5-fa4e326df2e2/sheet/d1435e56-cdee-4f5f-8b0d-f49d41ffbd6c/state/analysis)

### 3.2. How are they doing in Horizon participation?

Portugal's long-standing participation (over 40 years in EU Framework Programmes) has provided institutions with the experience needed to navigate European collaboration effectively. Based on the data in the Horizon Dashboard, Portugal takes the third place in the comparator group of countries in terms of the net EU contributions in Horizon 2020 (1,7% of total net EU contributions) leaving behind Czechia and Hungary. However, it climbs to the first place regarding the unique participations (2.17% of total). This means that more research groups take part in

Horizon 2020 projects from Portugal compared to the comparator countries but accounting for less money, and they present a lower success rate (12.93%) which resembles that of Hungary. The performance of Portuguese groups in ERC is similar showing the third highest share of principle investigators and the third largest share of ERC net contributions in the comparator group of countries. It is interesting, however, that in the ERC, the Portuguese scores are not that far from those of the second country in rank (Norway).

In Horizon Europe the situation remains the same with more unique participations for Portugal compared to its peers but with a lower success rate than its peers. The ERC profile is similar taking the third place in the comparator group, but this time being far behind Norway's scores (second in the rank).

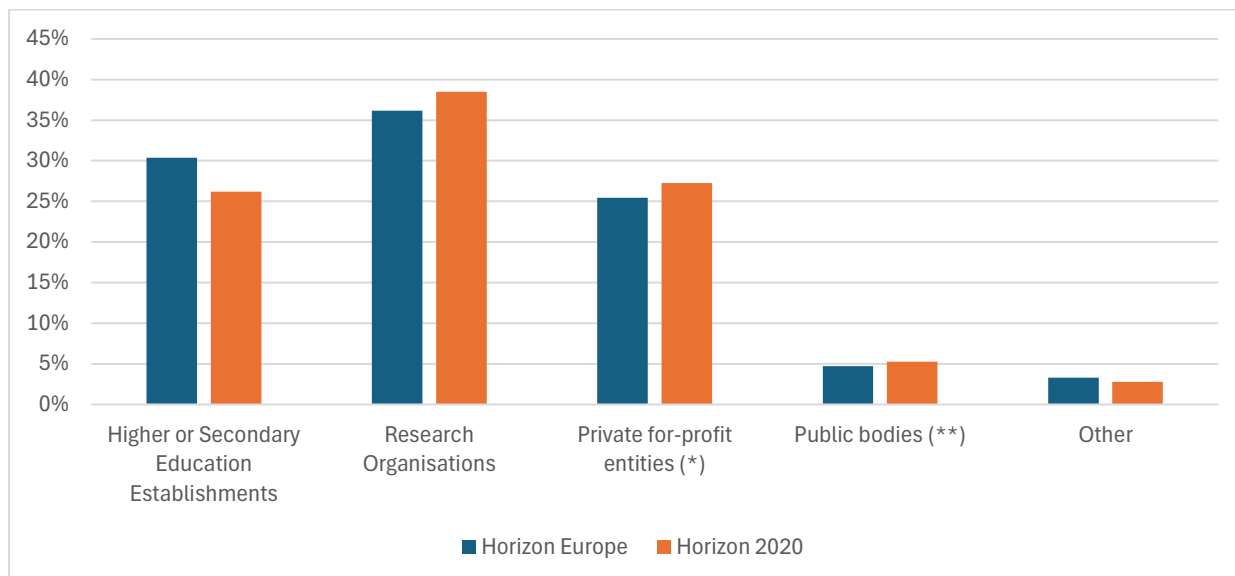
Table 7: Selected indicators of countries' performance in H2020 and Horizon Europe

<b>Horizon 2020</b>	<b>Portugal</b>	<b>Czechia</b>	<b>Denmark</b>	<b>Hungary</b>	<b>Norway</b>
<i>Net EU contribution (million)</i>	1,15 (1,7%)	0,504 (0,74%)	1,76 (2,59%)	0,365 (0,54%)	1,71 (2,51%)
<i>Unique participations (no.)</i>	911 (2,17%)	468 (1,12%)	895 (2,13%)	513 (1,22%)	786 (1,87%)
<i>Success rate (%)</i> H2020 success rate 15.34%	12,93%	15,48%	15,02%	12,73%	15,74
<i>ERC principal investigators (no.)</i>	86 (1,07%)	38 (0,47%)	186 (2,32%)	32 (0,4%)	107 (1,33%)
<i>ERC net EU contribution (million)</i>	127,9 (1,26%)	62,6 (0,5%)	322 (2,57%)	48 (0,38%)	195,5 (1,56%)
<b>Horizon Europe</b>	<b>Portugal</b>	<b>Czechia</b>	<b>Denmark</b>	<b>Hungary</b>	<b>Norway</b>
<i>Net EU contribution (million)</i>	1,12 (2,28%)	0,558 (1,14%)	1,42 (2,89%)	0,214 (0,44%)	1,53 (3,11%)
<i>Unique participations (no.)</i>	842 (2,73%)	420 (1,36%)	640 (2,07 %)	315 (1,02%)	656 (2,12%)
<i>Success rate (%)</i> HEU success rate 18.83%	16,17%	18,30%	20,45%	17,80%	20,68
<i>ERC principal investigators (no.)</i>	68 (1,3%)	47 (0,9%)	177 (3,39%)	14 (0,27%)	122 (2,33%)
<i>ERC net EU contribution (million)</i>	92,67 (1,09)	79,83 (0,93%)	302 (3,85%)	26,29 (0,31%)	229,3 (2,69%)

Source: Horizon dashboard – Oct 2025, [R&I Country Profile - Key Figures | Sheet - Qlik Sense \(europa.eu\)](#)

Regarding the types of beneficiaries across Horizon 2020 and Horizon Europe, besides a slight increase in the participation of higher education establishments, there is also a decrease in the involvement of research organisations and private for-profit entities. However, given that the figure is based on the EC contributions received by the project beneficiaries and that Horizon Europe is still running, any conclusion would be pre-mature at this stage.

Figure 8: Type of Portuguese beneficiaries in projects across Horizon 2020 and Horizon Europe based on the EC contributions received by each type



Source FFG based on eCORDA data (cut-off date Oct 2025)

(\*) Excluding Higher or Secondary Education Establishments

(\*\*) Excluding Research Organisations and Secondary or Higher Education Establishments

### 3.3. How are they doing in partnership project participation?

As noted above, based on data from the ERA-LEARN database (Table 1) Portuguese research organisations took part in 397 partnership projects during H2020. This places Portugal in the third place in the comparator group of countries with significant difference from the first two countries (Norway with 778 projects and Denmark with 649 projects), although Portugal took part in most of the calls in the partnerships under Horizon 2020. The Portuguese research community is larger than that of Denmark or Norway. In terms of financial commitments, Norway committed around €210 million in H2020 partnerships and Denmark put aside some €110 million, while Portugal committed some €34 million.

This denotes that Portugal has the research capacity (in terms of human resources) and excellence (as shown in international co-publications) but lacks the level of adequate funding to gain more in terms of research projects. The fact that Portugal participated in more calls than its peer countries in H2020 partnerships without however proportionate gains in projects might be another indication of the thin distribution of the available funding. The decision in Horizon Europe to increase commitments by almost 10 times the amount that was committed for partnerships under Horizon 2020 (from €34 million to € 323 million) was thus a step in the right direction.

However, the amount dedicated per project also needs to be increased. As a general rule Portuguese partners are funded with € 150,000 while the coordinators get € 250,000. The need for an increase in the **level of funding** was highlighted in all interviews with project beneficiaries. Interviewees noted that ceilings around €150k for all Portuguese participations in a project based on the FCT rules also discourage inclusion of multiple domestic organisations. This pulls Portuguese teams away from national consortia and toward external partners in Spain, Italy, France, Germany, Norway, etc.

The **funding asymmetry** that exists across the different countries also produces psychological hierarchies. An interviewee emphasised that their team received disproportionately lower budgets than German or UK partners, even though research costs are global:

*“Researchers should not go into the game feeling like you are worth less.” (JPND beneficiary)*

Another challenge is when a country does not ensure **consecutive participation in calls**. In a case where Portugal opted out of co-funding, a Portuguese team joined as an external partner without budget, absorbing costs from other sources, but highlighted that intermittent opt-ins to joint calls interrupt learning cycles and block leadership roles.

Interviewees across sectors - from anthropologists to health innovators – also expressed frustration with domestic bureaucracy and payment delays. As a Portuguese large company noted,

*“We were paid years after project completion.....This would be devastating for smaller organisations.” (AAL 2 beneficiary)*

Others echoed that due to **delays** in contract signing and payments, their institutions had to advance salaries and travel expenses, while other countries were already hiring staff.

Interviewees also highlighted that national funders demand heavy financial scrutiny, invoice-level verification, and duplication of reporting obligations that consume scientific bandwidth. By contrast, Horizon and major EU schemes were described as simple: predictable advance payments (often 50–80%), standardised financial models, and structured but manageable reporting. As a result, a striking consensus is that EU-level administration is seen as cleaner, faster, and more predictable than the Portuguese national funding system.

**Comparing different initiatives**, interviewees concluded that the Horizon programmes are larger, standardised, professionally administered programmes, more relevant for higher TRL, and market-oriented development. They are better for teams already embedded in strong networks. The European Partnerships including the old ERA-NETs and Joint Programming Initiatives like (JPND) are more suitable for smaller consortia and early-stage communities, as they enable authentic collaboration, and interdisciplinary research approaches. They are usually addressing lower TRL, while risky and exploratory research is welcome, and they are strong in stakeholder integration and policy reach.

Researchers repeatedly insisted these instruments do not substitute each other. Partnerships enable methodological innovation, deep scientific bonds, and trust, forming the foundations for later Horizon projects. As one participant put it, partnerships can be “*stepping stones*” to growth trajectories.

At the same time, researchers noted that Horizon programmes are significantly more competitive, and that preparing Horizon proposals also often require external consultants due to their complexity, while large Horizon consortia dilute integration. Instead, partnerships can be more inclusive and bottom-up.

*“Horizon programmes recycle the same large consortia... limiting entry for newcomers... Biodiversa’s smaller, thematic projects are more open, dynamic, and inclusive.” (Biodiversa Plus beneficiary)*

Participation in European Partnerships is repeatedly described as a **gateway into high-calibre research communities**, especially for institutions from peripheral or smaller national systems

like Portugal. Several interviewees indicated that partnerships were decisive in breaking institutional isolation and accelerating scientific recognition. As noted by a JPND beneficiary, participation in the partnership created unprecedented **visibility**. The interviewee described the experience as “*excellent*” across every stage, from proposal preparation to execution and follow-up, highlighting how European partners “*treated us as equal peers*” and valued the specificity of Portuguese expertise. This inclusion triggered the participating university to **modernise internal administrative and legal practices**, which then became assets in subsequent collaborations. The project also produced ongoing transnational activity after funding ended, with partners rebuilding a collaboration agreement and holding monthly meetings and annual workshops.

*“Even after the project ended, partners collectively decided not to dissolve the collaboration....we simply did not want to stop working together” (JPND beneficiary)*

The experience aligns with broader observations. European Partnerships tend to create **smaller, more cohesive consortia that build durable trust and institutional learning**. In contrast, large-scale Horizon projects are often perceived as fragmented and impersonal. Some interviewees stressed that the “closed circles” typical of Horizon are difficult to penetrate for less-established teams, whereas Partnership schemes actively redistribute opportunity, especially where “widening” and gender-balance criteria are enforced. A CHANSE beneficiary captured it clearly: the programme “*forces those better placed to look for people in other contexts, not to stay closed in their usual networks.*”

Interviewees also reported that **clarity of thematic purpose**, as seen in AAL, Biodiversa, or EMPIR for example, reduces ambiguity and improves proposal design. This mission alignment is particularly valued by applied research actors and innovation-oriented institutes. In the AAL case, the programme was praised as very targeted, and because AAL already defined user needs, the proposal was much easier than in EU calls where the objectives are vague. EMPIR offers a similar advantage. The programme enabled alignment of communities around concrete challenges, and the project showed the catalytic effect of interdisciplinary composition: radiation researchers and climate scientists “*did not normally talk to each other,*” yet were brought together into a coherent innovation agenda. In JPND, the unifying purpose was not just science, but care: researchers saw the disease not as competition but a shared challenge, and routinely engaged patients and families, reinforcing trust and ethical responsibility. An experience under SmartGridPlus also demonstrated that partnership projects are less rigid and that “*researchers can pursue alternative approaches*” allowing risk-taking and exploration in a “*creative environment for low-TRL research*”.

Regarding **success factors**, every interview confirms a fundamental point: the **human factor** determines success or failure far more than programme mechanics. Teams flourish when coordination is transparent, collaborative, and respectful.

*“The project coordinator’s competence and leadership are decisive.” (PRIMA beneficiary)*

European Partnerships that work well exhibit strong, assertive coordination, balanced inclusion (no partner treated as sub-contractor unless agreed), open communication, and mutual recognition of expertise.

*“The project worked because people liked and respected each other.” (HERA beneficiary)*

Conversely, when **coordination** fails, partnerships become disillusioning. A corporate partner in a PRIMA project who joined post-proposal felt excluded, used primarily “to access samples” rather than as an equal intellectual contributor. Despite being a consortium member, they “*were never given access to the final deliverables.*”

**Sustained networks are a systemic asset** and across disciplines, **project-afterlife** emerged as a distinct indicator of partnership quality. As examples,

- JPND teams continue monthly meetings and data sharing years after.
- SmartGrid and M-ERA.NET participants pursue joint follow-up projects.
- several consortia are preparing COST or ERC applications.
- EMPIR offers structured dissemination ecosystem (conferences, standards workshops, technology transfer) producing impact beyond publication.
- Biodiversa supports inter-project synergies, accelerating policy alignment and stakeholder uptake. The result is not simply research outputs but institutional reform, new methods, datasets, and follow-up initiatives.

*“These meetings create a multiplier effect beyond individual projects.” (BIODIVERSA Plus beneficiary)*

Overall, Portugal often benefits less from partnerships than its scientific potential would suggest, partly due to the domestic barriers and partly due to the challenges in aligning the diverse national rules and contexts to ensure the smooth operation of a partnership.

Taken together, the interview corpus demonstrates that Portugal’s scientific community thrives in European Partnerships, delivering innovation, policy impact, and institutional renewal. Portuguese teams are highly motivated, competent, trusted, and valued scientifically (with domain expertise e.g. in biotech, marine science, social anthropology, geriatrics, etc.). They perform strongly once integrated into European ecosystems, and have a proven capacity to form or join high-trust international consortia. However, domestic conditions erode their ability to lead, scale, or sustain participation. These include national bureaucratic burdens and delays, underfunding, uneven institutional maturity: private RTOs handle administration better than public universities, and inconsistent national co-funding which undermines momentum, leadership potential, and credibility. Added to this there is the dual reporting requirements and the national mismatches regarding participation rules, funding levels, and timing, that can cause challenges in project coordination and delays in the projects’ implementation.

## 4. In which R&I areas is Portugal strong?

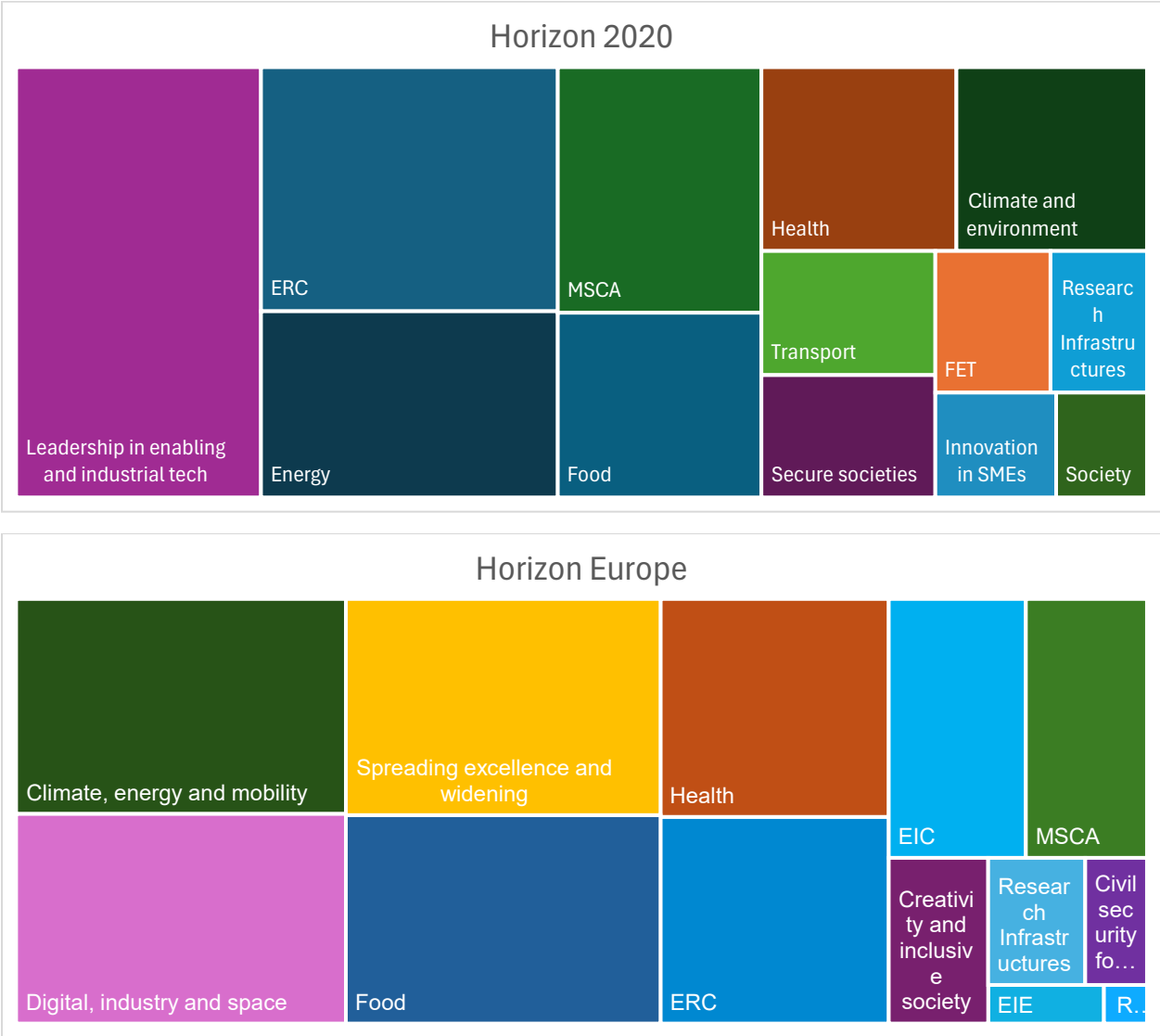
Portugal's research and innovation strategies focus on a broad but coherent set of thematic areas, centred on digitalisation, sustainability, and competitiveness. The ENI 2030 framework establishes major priorities in *Digital Transition, Materials, Systems and Production Technologies, Green Transition, Society, Creativity and Heritage, Health, Biotechnology and Food*, and *Major Natural Assets* including *Forest, Sea and Space*. The Technological and Business Innovation Strategy 2018–2030 complements these with more granular priorities: digital technologies and Industry 4.0, energy transition and decarbonisation, sustainable mobility, health and life sciences, agro-food systems and bioeconomy, advanced materials and nanotechnology, oceans and maritime industries, and space and aeronautics, supported by cross-cutting goals such as internationalisation, knowledge transfer, digitalisation, and human capital.

Additional sectoral strategies reinforce these domains: a National Strategy for Semiconductors and a Microelectronics Agenda targeting microelectronics; climate- and mobility-related strategies aligned with the NECP 2021–2030 and European aviation initiatives; bioeconomy and circular-economy strategies and territorial and urban-development strategies, such as the National Circular Cities Initiative and PNPT. Together, these instruments reflect a national strategic concentration on digital and industrial transformation, green and energy transitions, health and bioeconomy, and Portugal's natural and territorial assets (sea, forest, space, cities).

These areas are reflected in the performance of Portuguese research groups in Horizon 2020 and Horizon Europe projects. As shown below (Figure 9) the areas that have attracted more funding include enabling and industrial technologies and later the area of digital, industry and space. Climate energy and mobility have taken a large share in both Horizon framework programmes, followed by food and health.

As noted by some interviewees, current investment directions focus on semiconductors, clean aviation, biotechnology, quantum technologies, and soil-related missions. Portugal's performance in Horizon Europe reflects this focus, achieving around 2% return in competitive calls and 3% in mission-oriented activities, signalling solid results given its size and investment base.

Figure 9: Performance of Portuguese actors in Horizon 2020 and Horizon Europe - thematic areas based on the total EC contributions



Source FFG based on eCORDA data (cut-off date Oct 2025)

The interviewees shared some further insights for specific areas in relation to the county’s involvement in European partnerships. In health, Portugal’s comprehensive presence has built a dense web of contacts and learning channels across clinical, systems and personalised medicine partnerships. The central challenge is not scientific readiness but regulatory fit and budget scale for long trials, which points to the need for national rule adjustments and more predictable funding envelopes.

In urban transitions, DGEG underscores decentralised energy as the structural hinge of smart, climate-neutral cities. The partnership format is prized for its ability to convene municipalities, regulators, universities and firms around shared experimentation, with the Cities Mission serving as a complementary arena. Early experience is positive, though continuity across political cycles and wider organisational coverage remain open tasks.

In mobility, Portugal’s path is necessarily consortium-oriented given the absence of domestic headquarters of Original Equipment Manufacturers (OEMs). Joint Undertakings are competitive

and prescriptive, yet the country's success rates are approaching or exceeding EU averages in selected calls, especially where Portugal can offer strong testbeds and demonstration capacity. There is a call for clearer national thematic strategies to anchor repeated participation rather than ad hoc engagement.

In digital, semiconductors crystallise the benefits of concentrated national effort. Following the EU Chips Act, ANI invested heavily in brokerage and community mobilisation, and the emergence of a semiconductor strategy at national and regional levels has tightened alignment with European trajectories. By contrast, AI, data and robotics span an unwieldy breadth, making sustained community building more complex and sharpening the need for earlier information on co-funding needs, and value-chain analyses in partnership SRIAs.

In the blue and bio-based economy, Portugal's comparative advantages in marine resources and industrial biotechnologies are translating into growing participation. The bottlenecks are less scientific than structural, from membership fees and travel costs for SMEs to asymmetries in the information available to advisory representatives relative to full industry members.

Portugal has built a coherent and strategically aligned R&I framework with EU priorities centred on digital transformation, sustainability, industrial modernisation, and the valorisation of natural and territorial assets. These priorities are clearly reflected in Portugal's European R&I performance. Participation in European partnerships has deepened Portugal's integration into European research networks, though bottlenecks vary by domain. Overall, Portugal is strategically aligned, increasingly competitive, and deeply embedded in European R&I ecosystems, yet its full potential depends on addressing internal structural constraints and strengthening long-term capacities across key thematic areas.

## 5. With whom does Portugal collaborate in R&I and why?

The interviews depict two overlapping collaboration geographies. One is **excellence-seeking** and pan-European, in which Portuguese organisations increasingly join consortia with leading players irrespective of proximity, particularly in renewables, semiconductors and industrial biotechnology. The other reflects **regional ties**, especially with Spain and Italy. While traditional collaborations persist, thematic and strategic alignment with EU priorities now plays a more decisive role.

Based on the available data, Portuguese researchers mostly collaborate in Horizon Europe projects with peers in the South (Spain, Italy, Greece) as well as Germany, France, Belgium but also with Northern European countries (Netherlands, Finland, Denmark, and Sweden,) and the UK. These are largely repeated also in the case of project funded under the Horizon 2020 partnerships<sup>10</sup>. The associated countries in the top collaborators of Portuguese teams include in both cases United Kingdom, Norway, Switzerland, and Türkiye, while the US only appears in Horizon Europe projects.

Table 8: Top collaborations of Portuguese organisations in H2020 partnership projects and Horizon Europe projects

H2020 Partnership projects		Horizon Europe projects	
Countries	Number of links	Countries	Number of links
Spain	328	Spain	3631
Italy	250	Germany	2780
Germany	245	Italy	2757
France	195	France	2566
Greece	100	Belgium	1705
Netherlands	98	Netherlands	1588
Belgium	93	Greece	1482
Austria	88	United Kingdom	1287
Finland	75	Austria	767
Sweden	64	Finland	762
Poland	54	Denmark	698
...		Sweden	697
United Kingdom	72	Norway	672
Türkiye	46	Switzerland	663
Switzerland	39	Ireland	602
Norway	36	Poland	569
Israel	9	...	
...		Türkiye	291
		...	...
		United States	167

<sup>10</sup> Data on the projects of Horizon Europe partnerships are not yet available.

Source: H2020 partnership projects: BMR 2024. Horizon Europe projects: [Horizon dashboard](#).

Portuguese organisations are increasingly integrating into high-performance European value chains, yet they continue to collaborate strongly with Spain, Italy and Greece, alongside major research nations such as Germany, France, and the Netherlands. Overall, Portugal's collaboration geography is broadening and becoming more excellence-oriented

## 6. What are Portugal's S&W in relation to participation in European R&I Partnerships?

### Strengths

#### Strategic Alignment & Political Commitment

- Very high political commitment to European Partnerships; participation in 95% of partnerships relevant for Portugal in Horizon Europe.
- Strong alignment of national strategies (Portugal 2030, ENEI 2030, Technological and Business Innovation Strategy, NECP, thematic strategies on semiconductors, climate, mobility, circular economy, etc.) with EU partnership priorities.
- R&I internationalisation is a core national goal, driving systematic engagement with partnerships and significant increase of national financial envelop in Horizon Europe.

#### Institutional Coordination & Governance

- Highly coordinated national system for managing the participation in partnerships.
- Dual roles (e.g., NCPs also serving on State Representatives Groups) create early information flow and influence on agenda setting.
- Regional-national coordination between CCDRC, [FRCT Azores](#), and FCT (including MoUs).

#### Research Community Engagement

- High number of unique participations in Horizon Europe and Horizon 2020 (~2–2.7% of total), above comparator countries.
- Strong research-intensive institutions actively participate in partnerships.

#### Strategic Positioning in Key Sectors

- Strong performance or growing strength in:
  - Semiconductors and microelectronics
  - Digital, AI, Data and Robotics
  - Advanced manufacturing
  - Batteries, mobility and transport
  - Health partnerships, with comprehensive coverage and strong networking effects
  - Blue economy and marine sciences

#### Regional Innovation Effects

- ERDF-supported participation (e.g., via CCDR-C) shows positive regional impact, improving capacity and governance experience.

## Weaknesses

### Limited National Funding & Structural Constraints

- Very modest national budgets per project.
- Although Portugal increased commitments in Horizon Europe Partnerships, they remain thinly spread across almost all partnerships, preventing depth of engagement.
- Absence of national thematic programmes aligned with partnership areas limits long-term capability building.

### Regulatory mismatches

- ERDF rules add administrative layers, eligibility uncertainties, and mismatches in timing with Horizon Europe calls.

### Administrative Complexity

- Stakeholders describe high bureaucratic burden, including:
  - Dual application procedures
  - Differing partnership rules

### SME Participation Challenges

- Low SME engagement due to 40% co-financing requirements, limited staff capacity, difficulty entering established industrial consortia and high competition in JUs dominated by large firms
- Membership fees and association structures deter industry involvement.

### Limited Influence & Coordination Roles

- In Horizon Europe, Portugal holds no coordination roles in partnerships (unlike Norway/Denmark).

# Annex

Main indicators for Partnerships in H2020 and Horizon Europe based on ERA_LEARN available data (cut off date: Dec 2025)	Portugal	Czechia	Denmark	Hungary	Norway	EU14 average	EU13 average	EU27 AVERAGE
Total actual investments in partnership calls (€ m) (*)	60	71	203	38	320	335	46	196
Number of participating member organisations to partnerships	31	33	24	20	26	47	16	32
Number of partnership calls with specific country participation	187	122	165	139	250	209	131	171
Number of full-proposals submitted to partnership calls (**)								
Number of eligible proposals submitted to partnership calls (**)								
Success rate (funded/full-proposals) (**)								
Number of partnership projects with specific country participation (***)	362	291	602	166	689	820	176	528
Number of total project participations from country (***)	530	365	947	222	1062	976	183	615
Total costs of project participation (€ m) (***)	64	78	364	36	462	388	39	220

Sources: ERA-LEARN database (cut-off date Dec 2025)

(\*) Data from Aug 2025

(\*\*) Data not available yet

(\*\*\*) Only H2020 Partnership data available

Main R&I indicators	Portugal				Czechia	Denmark	Hungary	Norway	EU 27 average
	2020	2021	2022	2023	2023	2023	2023	2023	2023
GERD (as % of GDP)	1,61	1,67	1,69	1,69	1,83	2,99	1,39	1,85	2,13
Percentage of GERD funded by the business sector	52,20	53,70	56,60	-	37,60	-	50,2 (2021)	44,6 (2022)	57 (2021)
Percentage of GERD funded by government	37,30	35,60	33,20	-	29,90	-	34,6 (2022)	45 (2022)	30,8 (2021)
Percentage of GERD funded by rest of the world	6,50	6,30	6,10	-	31,10	-	19,6 (2022)	8,4 (2022)	9,9 (2021)
Percentage of GERD performed by the business sector	57,00	59,70	62,20	62,70	64,70	61,20	72,70	56,80	66,20
Percentage of GERD performed by higher education	36,00	33,30	31,10	30,20	18,80	35,40	15,80	31,30	21,50
Percentage of GERD performed by government	4,90	4,70	4,30	4,50	15,60	3,10	11,00	11,90	10,90
GOVERD (% of GDP)	0,08	0,08	0,07	0,08	0,29	0,09	0,15	0,22	0,23
percentage of GOVERD financed by the business sector	4,10	1,50	4,10	-	3,10	-	2 (2022)	7,3 (2022)	4,9 (2021)
HERD (as % of GDP)	0,58	0,56	0,53	0,51	0,16	1,06	0,22	0,58	0,46
percentage of HERD financed by the business sector	2,20	2,30	1,90	-	4,40	-	3,5 (2022)	2,1 (2022)	7 (2021)
BERD (% of GDP)	0,92	0,99	1,05	1,06	1,19	1,83	1,01	1,05	1,41
percentage of BERD funded by the business sector	89,70	88,40	89,50	-	55,90	-	61,4 (2022)	77,9 (2022)	83,2 (2021)
percentage of BERD funded by government	6,40	7,80	7,30	-	4,60	-	13,6 (2022)	10,7 (2022)	5,7 (2021)
percentage of BERD funded by rest of the world	3,80	3,80	3,20	-	39,50	-	25 (2022)	11,4 (2022)	10,8 (2021)
Total national public funding to transnationally coordinated R&D (€ million) (EUROSTAT) Europe-wide transnational public R & D programmes	11,986	19,238	20,932	33,199	21,990	26,332	4,142	76,119	
Total researchers (full-time equivalent)	53.174	56.365	59.160	62.476	48.775	53.860	44.224	41.003	2.135.151
International scientific co-publications per million pop (2025)	175 (2022)	176 (2023)	172 (2024)	182 (2025)	139 (2025)	381 (2025)	87 (2025)	356 (2025)	
Scientific publications in top 10% most-cited worldwide	90 (2022)	87 (2023)	81 (2024)	75 (2025)	50 (2025)	134 (2025)	54 (2025)	122 (2025)	
PCT patent applications EIS 2025	54 (2022)	53 (20213)	57 (2024)	51 (2025)	47 (2025)	126 (2025)	60 (2025)	68 (2025)	
ERC funded projects	13	23	13	18	8	43	-	30	

Sources: OECD STI Indicators, [https://stats.oecd.org/Index.aspx?DataSetCode=MSTI\\_PUB&\\_ga=2.10058678.2035126309.1548251117-1585184866.1542984834](https://stats.oecd.org/Index.aspx?DataSetCode=MSTI_PUB&_ga=2.10058678.2035126309.1548251117-1585184866.1542984834) ,  
<https://projects.research-and-innovation.ec.europa.eu/en/statistics/performance-indicators/european-innovation-scoreboard/eis-2024#/> ,  
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