

14. Action 14: Bring science closer to citizens

1.1. Purpose of the Action and expected outcomes

The role of citizens has been evidenced as crucial to ensure broader impact of R&I as well as higher alignment with societal needs and challenges. As a result of its relevance, citizen engagement has been embedded into the EU Missions.¹ Missions have the potential to mobilize EU citizens around common goals and to offer meaningful opportunities to participate in change. They are instrumental to building a deliberative democracy in the EU.

Consequently, the ERA aims to empower citizens and local communities to promote their engagement, trust and interest in science. Education, training activities and regular citizen science campaigns are some of the key instruments implemented to achieve this objective. Additionally, this action also promotes co-creation and collaboration with citizens in view of ensuring the societal uptake of the developed solutions and results.

The ERA Policy Agenda 2022-2024 defines the following expected outcomes within Action 14:

- Scale-up of the Plastic Pirates – Go Europe! Initiative;
- Launch the European City for Science, during the European Year for Youth;
- Feasibility analysis for a federated ‘EU Science Media Network’ to ensure more factual journalistic reporting on science;
- Propose a policy coordination mechanism on public engagement practices, including citizen involvement in scientific processes.

1.2. Implementation of the Action

Increasing the engagement of citizens across the EU within the research ecosystem has been a priority in the EU in the past years, placing higher attention on citizen science initiatives. In 2015, former Commissioner Moedas identified three strategic priorities, described in **Open innovation, Open science, Open to the world** (the three O’s strategy). One important dimension of open science is citizen science and in 2016, the Council² recognised citizen science as an open science priority.³

Following this line of action, the EU developed the EU citizen science initiative through Horizon 2020,⁴ an online platform for sharing knowledge, tools, training and resources for citizen science. As part of Marie Skłodowska-Curie Actions (MSCA) (under Horizon Europe), the European Researchers’ Night continues to be organised under the **MSCA and Citizens action**.⁵ It aims to bring research and researchers closer to the public at large, with a focus notably on families, pupils and students.

In 2022, the European Commission launched its new flagship initiative Researchers at Schools as part of the European Year of Youth. It fosters direct interaction between researchers, primary and secondary school teachers and pupils. In this context, under the **Horizon Europe WIDERA** programme calls have been launched to support citizen science and the connection to society⁶.

¹ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-missions-citizen-engagement-activities_en

² <https://europa.eu/ITq94Pn>

³ <https://op.europa.eu/en/publication-detail/-/publication/c30ddc24-cbc6-11ea-adf7-01aa75ed71a1>

⁴ <https://eu-citizen.science>

⁵ <https://marie-skłodowska-curie-actions.ec.europa.eu/actions/msca-citizens>

⁶ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search;callCode=null;freeTextSearchKeyword=citizen;matchWholeText=true;typeCodes=0,1,2,8;statusCodes=31094501,31094502,31094503;programmePeriod=null;programCcm2Id=43108390;programDivisionCode=43121702,43121707,43121757;focusAreaCode=null;destinationGroup=null;missionGroup=null;geographicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=sortStatus;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState>

Recently, key **initiatives and policies have been implemented to achieve the above-mentioned outcomes.** Under the Policy Support Facility the **Mutual Learning Exercise (MLE) on 'Citizen Science initiatives – Policy and Practice** was developed.⁷ It aimed at facilitating the exchange of information, experiences and lessons learned, as well as at supporting and expanding citizen science through identifying good practices, policies and programmes at local, regional and national level, towards supporting and scaling up citizen science.

Similarly, the **European City of Science** was launched in 2022 during the European Year of Youth. This label is awarded to cities with a rich and diverse scientific landscape. It allows citizens, adults and children, as well as scientists, researchers, and research professionals, to exchange ideas and increase their knowledge on science and technology⁸. The awarded city is also in charge of the organisation of the **European Science in the City Festival**, key initiatives in bringing citizen closer to citizens.

The last awarded city, Leiden, organised the **EU TalentOn**, an initiative aimed at bridging the gap between young talent, science and industry⁹. Another crucial initiative is the **European Union Contest for Young Scientists (EUCYS)**, the most important student science fair in the EU, showcasing the best of student scientific achievement in the EU and beyond¹⁰.

National policy examples

There have been increasing efforts in the form of policies and initiatives at the EU level and at the country level. In **Austria** the Federal Ministry of Education, Science and Research (BMBWF) has included Citizen Science as one of 12 Actions in the Austrian ERA National Action Plan, showing increasing commitment towards this action.

In **Germany**, citizen science has been systematically funded and embedded into national policies. Citizen science has been included both in the 2016 Green Paper and 2022 White Paper and a national platform 'Bürger schaffen Wissen' has been established.

In relation to the outcomes above-mentioned, there have been key achievements regarding **Plastic Pirates – Go Europe! citizen science initiative**, one of the main outcomes of this Action. This initiative was launched by the Trio Presidency of Germany, Portugal and Slovenia in 2020 and, since 2022 it incorporated 8 additional EU countries (Austria, Spain, Italy, Lithuania, Hungary, Belgium, Greece, Bulgaria) showing an increasing commitment across the EU.¹¹ In each of these 11 countries, successful pilot phases with a minimum of 15 citizen samples have been carried out **involving more than 5000 young citizens as active participants** and adding up to a collection of over 300 data sets that are currently being verified by local research partners.

The initiative has led to wide press coverage across Europe with 196 media reports (online, print, radio, podcasts) and 295 posts in social media (Facebook and Instagram). In addition, didactically elaborated education material on plastic pollution has been made available to teachers and beyond in 10 European languages: English, Portuguese, Slovenian, Greek, Italian, Lithuanian, Dutch, Bulgarian, German and Spanish.

In the context of policies related to Action 14, the 2023 OECD STIP Survey provides key information on **policy initiatives and instruments** being implemented both at the EU level but also across the different EU Member States.

Figure 33 illustrates that **policies promoting Action 14** tend to fall under the smallest budget ranges, with 85 policy initiatives with less than EUR 1M of funding and only five with more than EUR 5M allocated to. This phenomenon is explained by the larger presence of governance and guidance policy instruments (implying lower budgets), which are among the above-mentioned expected outcomes.

⁷ <https://ec.europa.eu/research-and-innovation/en/statistics/policy-support-facility/psf-challenge/mutual-learning-exercise-citizen-science-initiatives-policy-and-practice>

⁸ <https://www.euroscience.org/european-city-of-science>

⁹ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/eucys_en

¹⁰ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/eucys_en

¹¹ <https://www.plastic-pirates.eu/en>

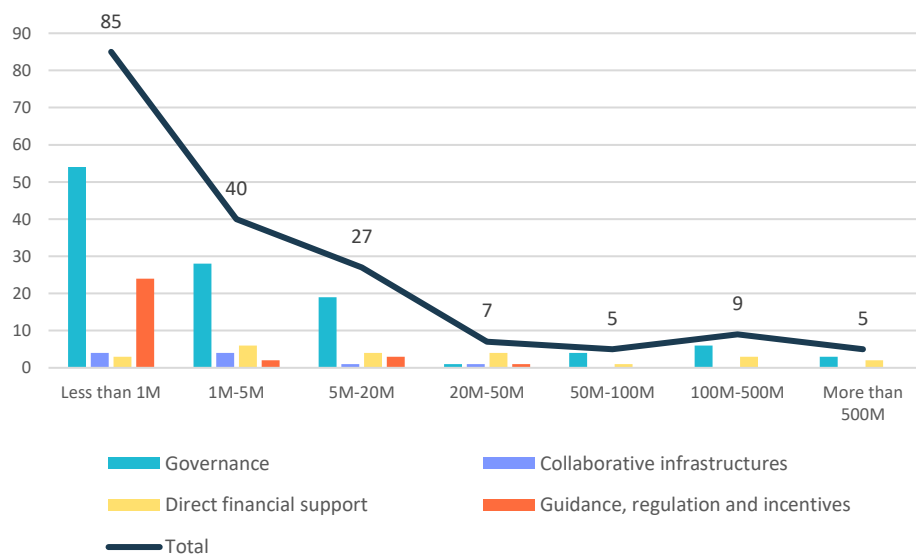


Figure 33: Action 14: Distribution of budget per policy instrument

KEY FINDINGS ERA PRIORITY 3: AMPLIFYING ACCESS TO RESEARCH AND INNOVATION EXCELLENCE ACROSS THE UNION

SUMMARY BOX: KEY FINDINGS ERA PRIORITY 3

In terms of the increase in total R&D expenditure, Widening Countries generally pursued the same trend as the EU overall, with a deceleration period between 2012 and 2016 followed by an upward trend until 2020.

Overall, the expenditure in R&D has increased throughout the period 2010-2021. Despite limited quantitative assessment, evidence shows powerful and increasing policy efforts to improve access to R&I excellence across the EU. For example, the Horizon Europe programme is enhancing collaboration with Widening Countries.

Similarly, to other ERA Priorities, there is a disparity between countries and regions in the EU in terms of R&I performance. Therefore, a more inclusive approach supporting all EU Member States towards improving their R&I systems and performance is recommended.¹²

In order to further support the reduction of regional disparities and the inclusion of Widening Countries, a core enabling factor relies in strengthening HEIs through the promotion of capacity building, upskilling and reskilling of researchers. As already mentioned, in order to achieve this ERA Priority Horizon Europe is playing a crucial role by supporting various projects through the WIDERA work programme¹³ and COST actions¹⁴.

Key findings by action

ERA Action 16 aims at improving access to excellence across the EU's R&I system particularly supporting low R&I performing countries through increased coordination between Cohesion policy instruments and the Horizon Europe programme. As part of this action, the ERA Forum sub-group 'Access to excellence' – 'R&I and Cohesion Managing Authorities' Network (RIMA) has been set up. The activities implemented under this action are relatively new with most of them being implemented since 2023.

¹² It can be expected that the establishment of the ERA Forum sub-group 'Access to excellence' – 'R&I and Cohesion Managing Authorities' Network (RIMA) will enhance and support the implementation of actions within this ERA Priority (<https://ec.europa.eu/transparency/expert-groups-register/core/api/front/document/95343/download>).

¹³ HORIZON EUROPE: Widening participation and spreading excellence (https://rea.ec.europa.eu/funding-and-grants/horizon-europe-widening-participation-and-spreading-excellence_en)

¹⁴ <https://www.cost.eu>

Horizon Europe, particularly the WIDERA programme (providing support for activities such as Teaming, Twinning, Excellence hubs or the European Excellence Initiative) plays a central role in supporting EU-wide access to excellence for Widening Countries and to contribute to the achievement of objectives under Action 16.

In relation to the promotion of excellence in R&I, Horizon Europe demonstrates a strong commitment to research management initiatives. This commitment aligns with [ERA Action 17](#) and includes efforts to promote best practices in research management, open science, and innovation. Among these initiatives, the Research Management Roadmap was launched. It is a pan-European community of research management excellence, coming together over three years to define a roadmap for research managers.

Notable initiatives such as RITrainPlus, Horizon Europe's SwafS and RRI programs, and the EIT's HEI Initiative provide support and funding to enhance the strategic capacity of research management.

PROGRESS TOWARDS THE OBJECTIVES FOR ERA PRIORITY 3

The third Priority of the European Research Area focuses on amplifying access to research and innovation excellence in Europe and enhancing interconnections between innovation ecosystems across the Union. The core objective of this priority relies in the promotion of an inclusive approach in R&I, engaging all relevant stakeholders, particularly those located in R&I systems with lower performance as well as promotion of synergies across funding schemes to enhance R&I across the ERA. The priority has three associated sub-priorities, however, there is currently a lack of data availability for several indicators that should track progress in this area.¹⁵

There is one indicator used to monitor progress against [sub-priority 3.1 more investments and reforms in countries and regions with lower research and innovation performance](#). It tracks the **increase in total R&D expenditure for widening and non-Widening Countries (as percentage of GDP)**. The available data over 10 years (from 2011 to 2021) shows that R&D expenditure increase throughout the whole period. Nonetheless, the increase in R&D expenditure across the EU decelerated between 2012 and 2016, followed by an upward trend until 2020.

Error! Reference source not found.⁶⁴ in Annex 3 shows divergence across Widening Countries¹⁶. Countries like Croatia, Greece or Poland constantly lie above the EU average, evidencing a larger increase in R&D expenditure than at the EU level. Other countries like Estonia, Slovenia or Slovakia display volatile trends over the period, with large up and downs. Overall, both widening and non-Widening Countries follow similar trends to the EU average.

¹⁵ For more details, please refer to the methodology report for the ERA Scoreboard and the ERA Dashboard published in the context of the ERA Monitoring Mechanism.

¹⁶ Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia and all Associated Countries with equivalent characteristics in terms of R&I performance and the Outermost Regions.