



May 2023

Horizon Europe implementation

Key data for 2021-2022

2 years of implementing Horizon Europe

Horizon Europe was launched in April 2021 with a total budget of **EUR 95.5 billion**. This includes EUR 5.4 billion from the Next Generation Europe instrument, particularly to support the green and digital recovery from the COVID crisis.



€ 16.3 billion of EU contribution allocated so far through grants



5 509 signed grants over 2021-2022



15.9% success rate of proposals (11.9% in Horizon 2020)



7 out of 10 high quality proposals cannot be funded (an extra EUR 34.3 billion would have been needed)



82% of funding going to collaborative projects, involving on average **12** participants



39 079 participations from **14 182** distinct organisations from **142** countries



€ 3 million of average grant size (€1.9m under Horizon 2020)

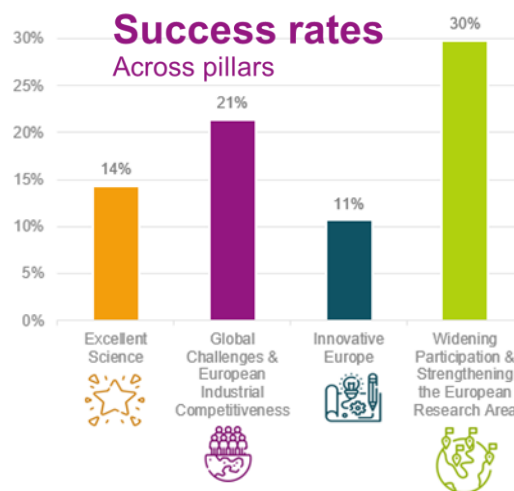
A programme raising a lot of interest with high quality of applications, and higher success rates, but with still 7 out of 10 high quality proposals that cannot be funded

As of end 2022, **31% of Horizon Europe budget** had been **committed** and **12% of the payments made**. The programme has been very attractive generating **close to 45 000 proposals to the 236 calls for proposals (4.3 topics per call)**. The **quality of the proposals improved compared to Horizon 2020**, with 54% of them assessed as high quality by external experts, compared to 46% in the past programme. **Only 30% of the high-quality proposals could however be funded** with the budget available, even if this is slightly better than in Horizon 2020 (25%), an **additional €34 billion would have been needed to fund**

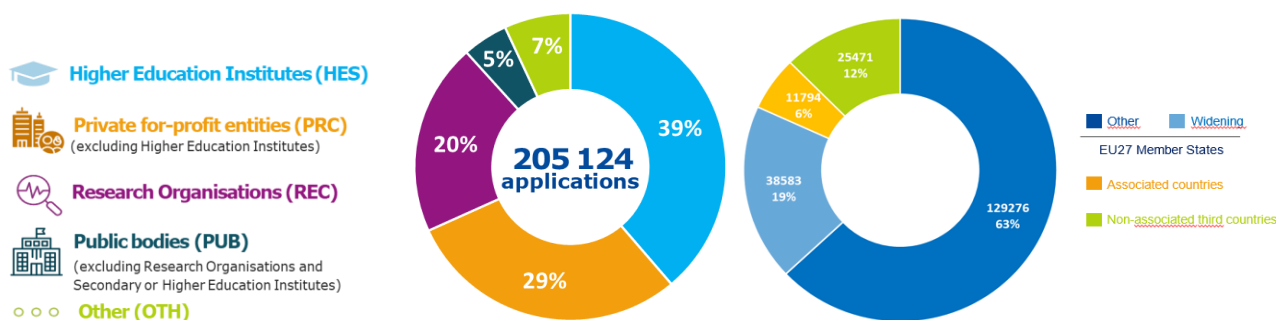
them all. To promote potential support through other means at national or regional level, **2562 of these excellent unfunded proposals received a Seal of Excellence** certificate.

The **average success rate of proposals has increased from 11,9% in Horizon 2020 to 15,9% in Horizon Europe.** Success rate varies by pillar but there are no big differences between country groups.

Not surprisingly given its strong focus on mono-beneficiary grants, the **Excellent Science pillar** attracted 70% of the proposals whereas the **“Global challenges and Industrial Challenges” pillar** attracted 53% of the requested EU contribution. **Each entity applied on average 4.6 times** as in Horizon 2020, but big differences are observed between organisation types, ranging from 2 for private and public bodies to 24 for higher education institutes. The **largest share of applications comes from higher education institutes** (39%) followed by private for-profit organisations (29%, compared to 17% under Horizon 2020). Research organisations rank third with 20% of the applications, half of their representation in Horizon 2020 (40.2%).



Applications in eligible proposals by organisation type

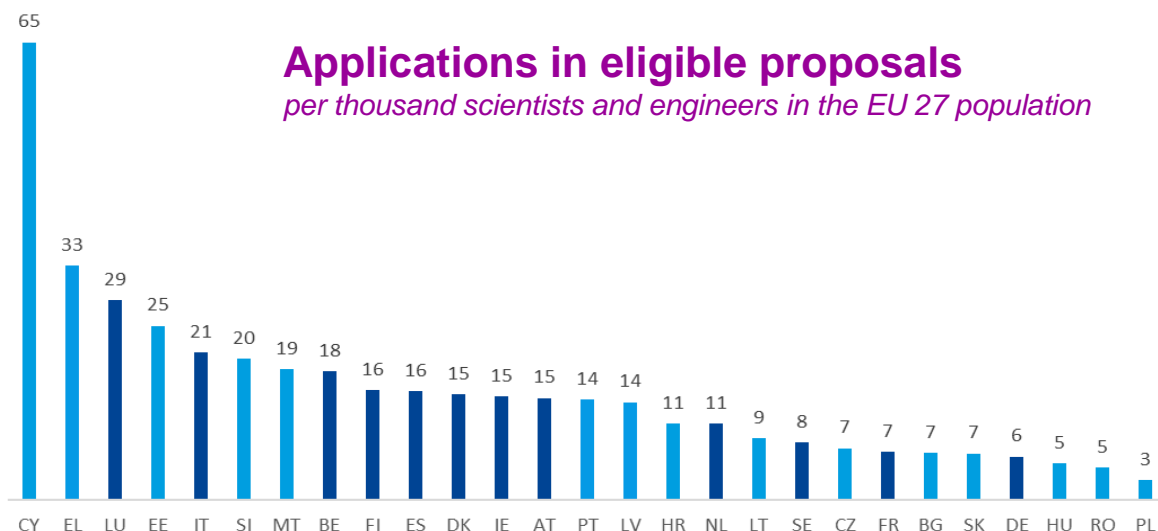


A wide geographic coverage but a low number of applications from the “widening” countries, despite higher success rates than under Horizon 2020, and funding concentrated in a little number of high R&I performing countries.

The programme generated interest from **180 countries.** Organisations located in EU27 Member States account for 82% of the submitted applications. **Entities located in the 15 widening countries¹ applied much less than other Member States** (19% of applications, while representing 26% of the EU population of scientists and engineers), despite relatively high success rates, for instance for Slovenia and Slovakia, with 23% of their applications being successful (as compared to 16% for the programme on average). Associated countries represent 6% of applications (mostly Norway, Turkey, Israel, and Serbia) and non-associated third countries 12%

¹ “Widening” countries are the least performing in terms of R&I with respect to EU27 average. Under Horizon Europe, those 15 countries are: Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia.

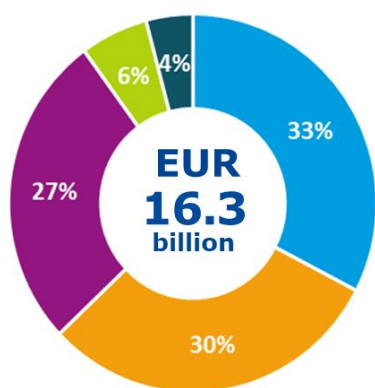
(mostly from UK - with a drop of applications by year of 50% compared to Horizon 2020 – and Switzerland, followed by the US, Canada and China).








Close to **50% of the Member States applications** come from organisations located in four countries, which also have the biggest population of scientists and engineers in EU27 and the highest R&D investments: Spain, Italy, Germany, and France. **They also received more than 50% of the EU contribution to signed grants.** Putting the number of applications in perspective with the scientific population of each country, the most active country is by far Cyprus, followed by Greece, Luxembourg and Estonia. The **lower number of applications from widening countries translates in terms of participations, where they represent 14% of participations.** This is higher than their share of investments in R&D in the EU27, which is 8%. When comparing EU funding received by Member States by million EUR invested in R&D, Cyprus actually comes first followed by Greece, and Malta.

Higher education institutes remaining the main beneficiary, but a considerable share of newcomers, and close to 5000 SMEs involved

Higher education institutes remain in first place in terms of EU contribution received (EUR 5.3 billion), followed by private for-profit entities (EUR 4.9 billion) and research organisations (EUR 4.4 billion). The share of funding per type of organisation looks very similar to what was observed in Horizon 2020, with a slight decrease for higher education institutes to the benefit of research organisations and private for-profit entities. **More than one third of Horizon Europe beneficiaries are newcomers.** They receive 9% of Horizon Europe funding and represent mainly the private sector and public bodies that **did not participate in Horizon 2020.**



EU contribution to signed grants *by type of organisation*

-  **Higher Education Institutes (HES)**
-  **Private for-profit entities (PRC)**
(excluding Higher Education Institutes)
-  **Research Organisations (REC)**
-  **Public bodies (PUB)**
(excluding Research Organisations and Secondary or Higher Education Institutes)
-  **Other (OTH)**

SME participation levels in Horizon Europe have not changed dramatically compared to Horizon 2020. **SMEs represent about one fifth of participations and EU funding in Horizon Europe projects.** At the end of 2022, there were 7 395 SME participations in Horizon Europe projects (19% of all), accounting for an overall EU contribution of EUR 2.9 billion (18% of all EU funding). There are 4 617 unique SMEs participating in at least one project. **If current trends persist, SMEs in Horizon Europe will be granted well over EUR 15 billion by 2027.**

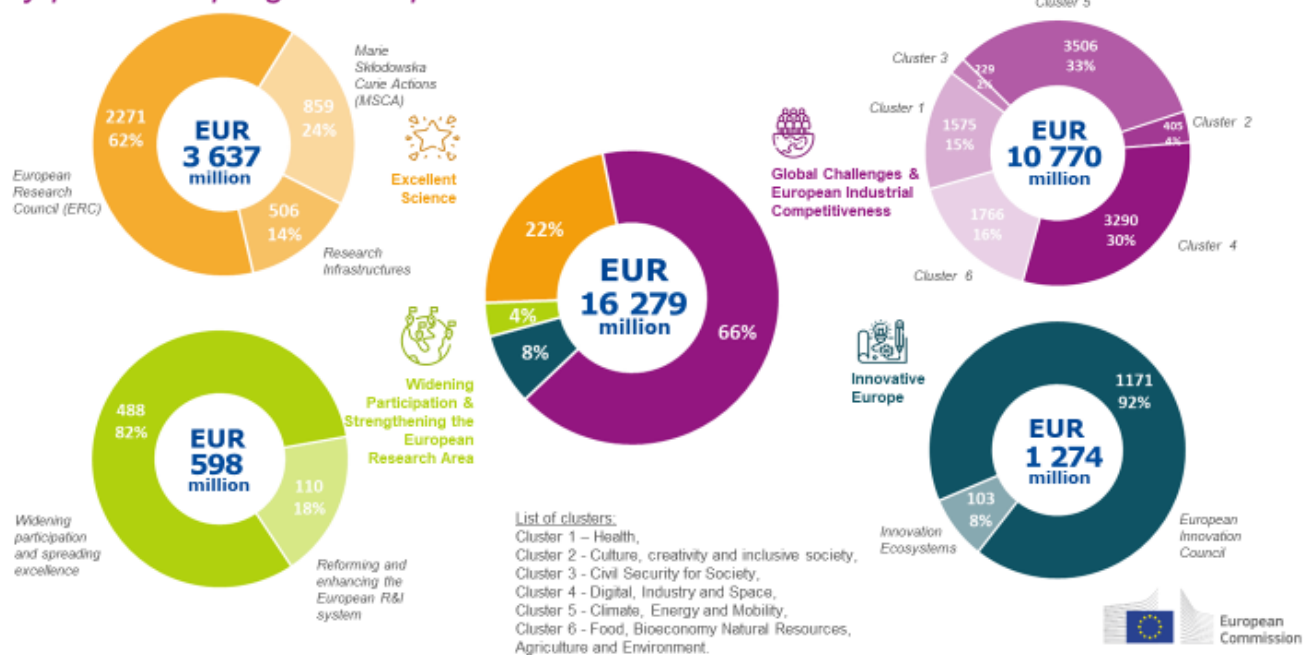
Pillar 2 represents three quarters of all SME participations, and two thirds of all EU contribution for SMEs in Horizon Europe, with EUR 1.9 billion allocated to SMEs. Pillar 3, which includes a set of SME-oriented instruments, represents a relatively small part of all SME participations (8%), but over a quarter of all funding (EUR 0.7 billion). **While the country with most participations in Horizon Europe is Germany, the country with most SMEs participations is Spain.** This confirms patterns already seen in Horizon 2020. Cyprus, Ireland, Greece, Estonia and Lithuania show the highest shares of SMEs participations. **In terms of EU contribution, German SMEs rank first, followed by France and Spain.** The share of SMEs in EU contributions is highest in Cyprus, Lithuania, Estonia, and Ireland.

More collaborative projects, bigger grants and scalable contribution to climate & digital priorities

The largest share of funding, **66%**, has been allocated to **pillar 2** – Global challenges and European Industrial Competitiveness, two-third of which to the climate and digital clusters of activities. The **Excellent science** pillar accounts for **22%** of the funding, allocated mainly to the European Research Council. The other two pillars share the remaining 12% of funding. **82% of the funding goes to collaborative projects as compared to 76% in Horizon 2020.** The **average grant size is around EUR 3 million under Horizon Europe.** It is higher than in Horizon 2020 where it was EUR 2.3 million.

EU contribution to signed grants

by pillar and programme part



Looking at the objectives pursued **34,1% of Horizon Europe funding is allocated to projects addressing climate change** (32% under Horizon 2020) whereas **7.5% of funding contribute to biodiversity**

objectives (8% in Horizon 2020). In addition 34% of Horizon Europe investments will contribute to the **digital transformation**. EUR 120 million were also allocated to projects whose principal objective is to improve **gender equality** and EUR 2497 million to projects that will contribute in some way to gender equality but not significantly.

EU Missions and Joint Undertakings on their way to tackle global challenges

Five EU Missions aim to provide concrete solutions to the greatest challenges Europe is facing and to directly support the EU priorities. Horizon Europe will provide initial funding of up to EUR 1,9 billion for the first three years.

By the end of 2022, **25 missions' calls** had been launched and fully evaluated; **71 grants** had been signed for a total of **EUR 567 million** and involving **1525 beneficiaries**. 9 out of 10 organisations participating in the missions' projects are based in EU Member States, 28% of which in "widening" countries.

By end 2022, 105 grants were signed through **Joint Undertakings** for a total amount of EUR 1.4 billion of EU funding, gathering 2329 participants:

- 68% of the funds allocated to activities contributing to the Green Deal objectives (Clean Aviation JU, Clean Hydrogen JU and Europe's Rail JU)
- 32% of the funds allocated to activities contributing to digital objectives (High performance Computing JU, Key Digital Technologies JU and Smart Networks & Services JU).

