



HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENTS

GSRI

GENERAL SECRETARIAT FOR
RESEARCH AND INNOVATION



GR@CERN

14-15 November 2022

Recent Developments in the R&I Ecosystem in Greece



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Outline



Introduction – elements of the Greek R&I landscape

a few numbers

Elements of our National Smart Specialization Strategy and International cooperation activities

GREEK GOVERNMENT

**MINISTRY OF EDUCATION &
RELIGIOUS AFFAIRS**

**25 HIGHER EDUCATION
INSTITUTIONS (HEIs)**

Since July 2019 GSRI has been a part
of the Ministry for Development and
Investments

MINISTRY OF DEVELOPMENT & INVESTMENTS

GENERAL SECRETARIAT FOR RESEARCH & INNOVATION

**HELLENIC FOUNDATION
FOR RESEARCH AND
INNOVATION (HFRI)**

**11 RESEARCH CENTERS
(Basic & Applied Research)**

**3 TECHNOLOGICAL
ORGANISATIONS**

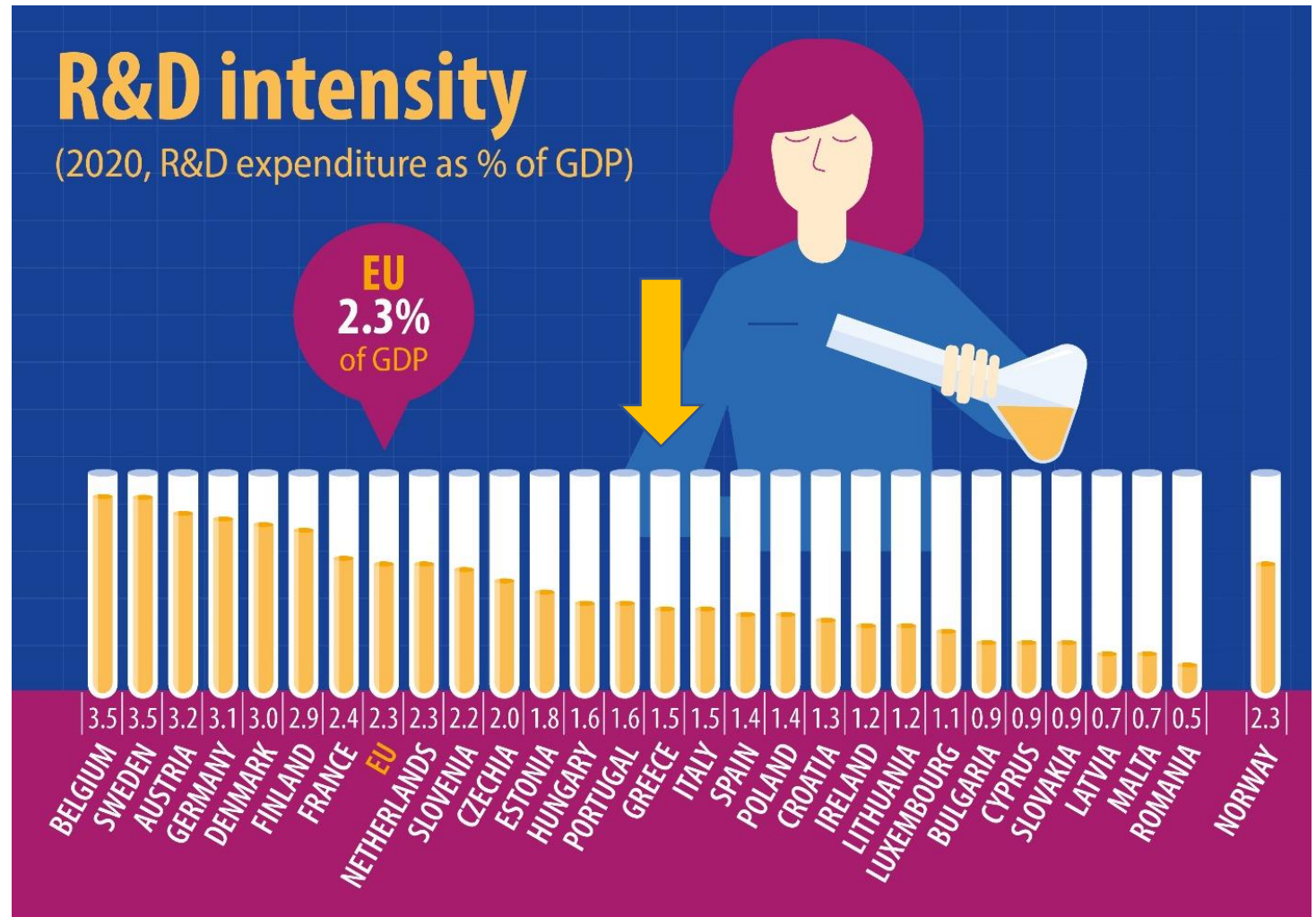
**International S&T Cooperation
Directorate**

EU &
International
Organizations

Bilateral
Cooperation

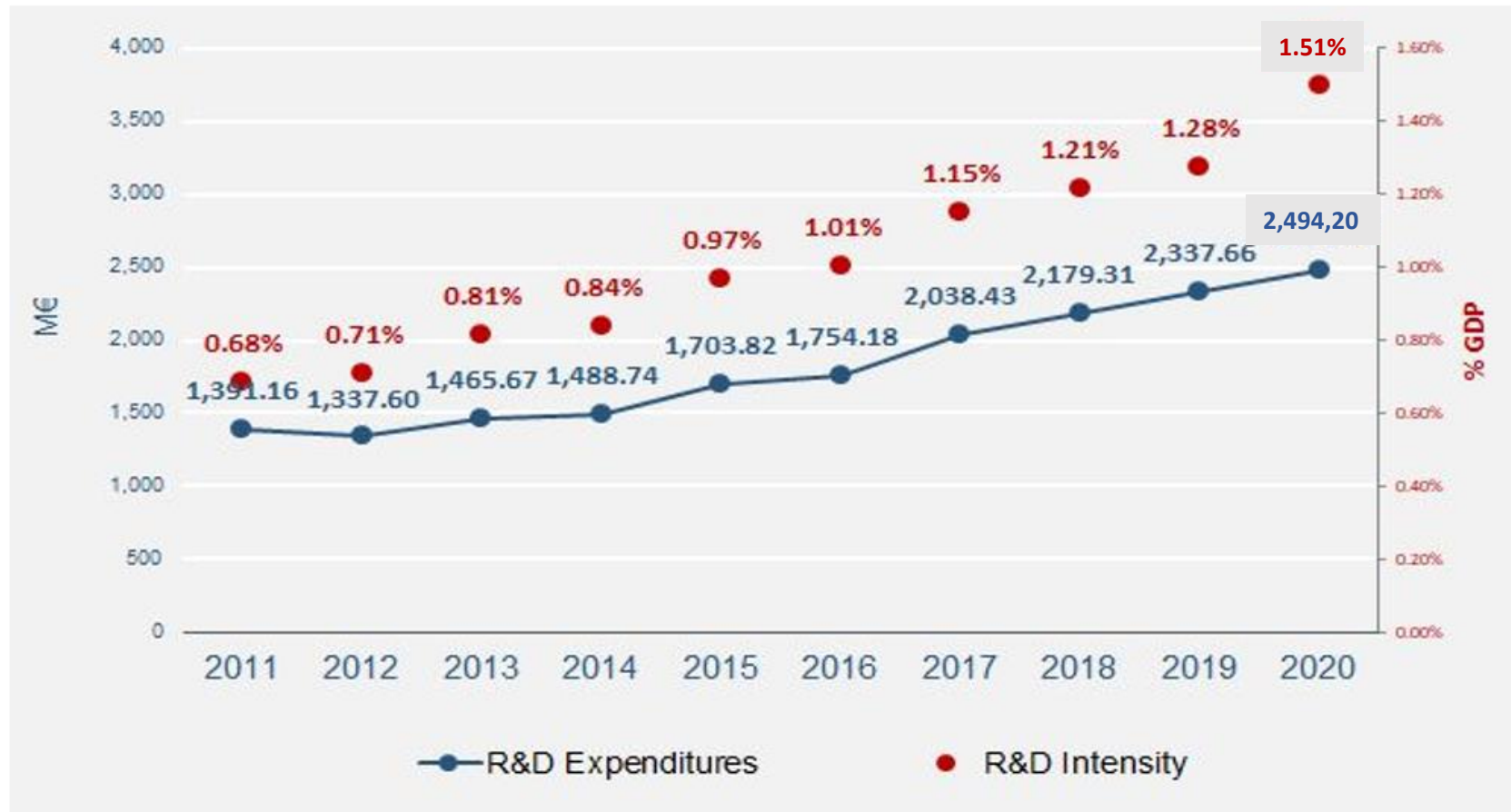
Management
of
International
Cooperation
Projects

R&D Intensity in Greece remains below the EU average



R&D expenditures in Greece at 1.50% of GDP in 2020

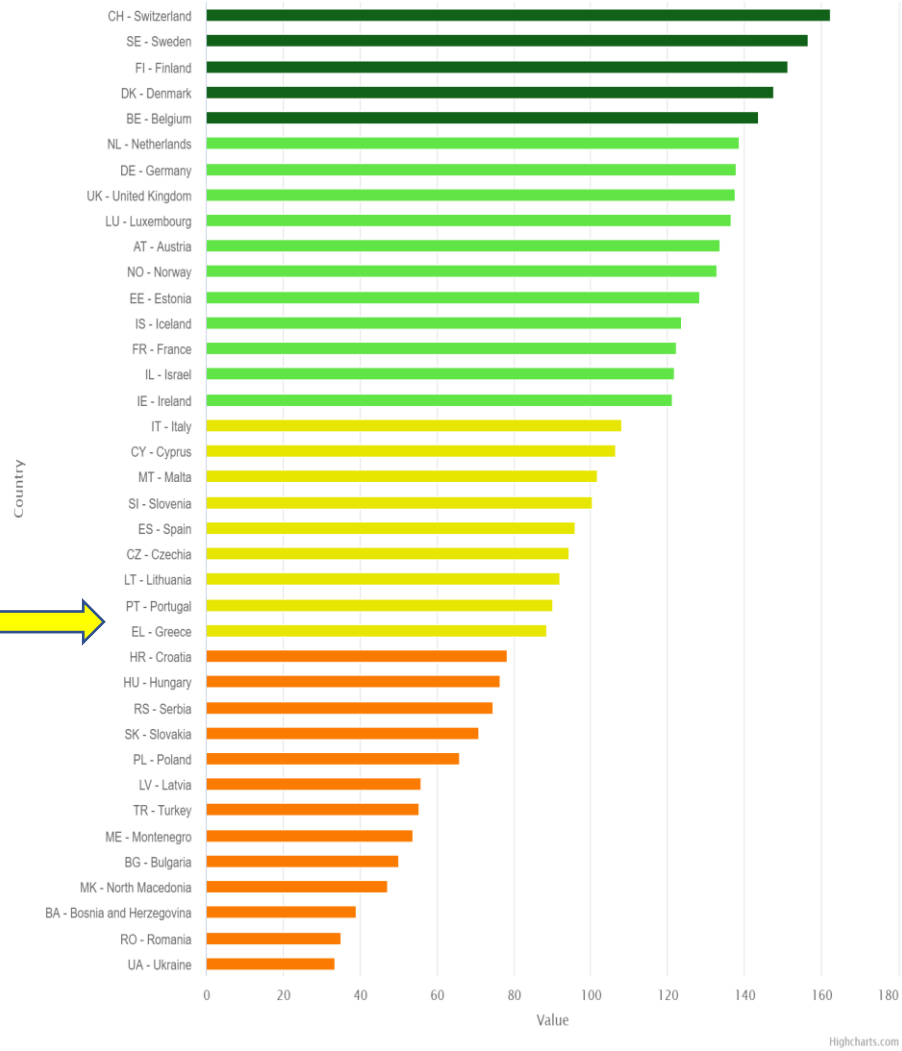
R&D Expenditures and R&D Intensity (R&D expenditures of GDP), 2011-2020



Source: National Documentation Centre (EKT)

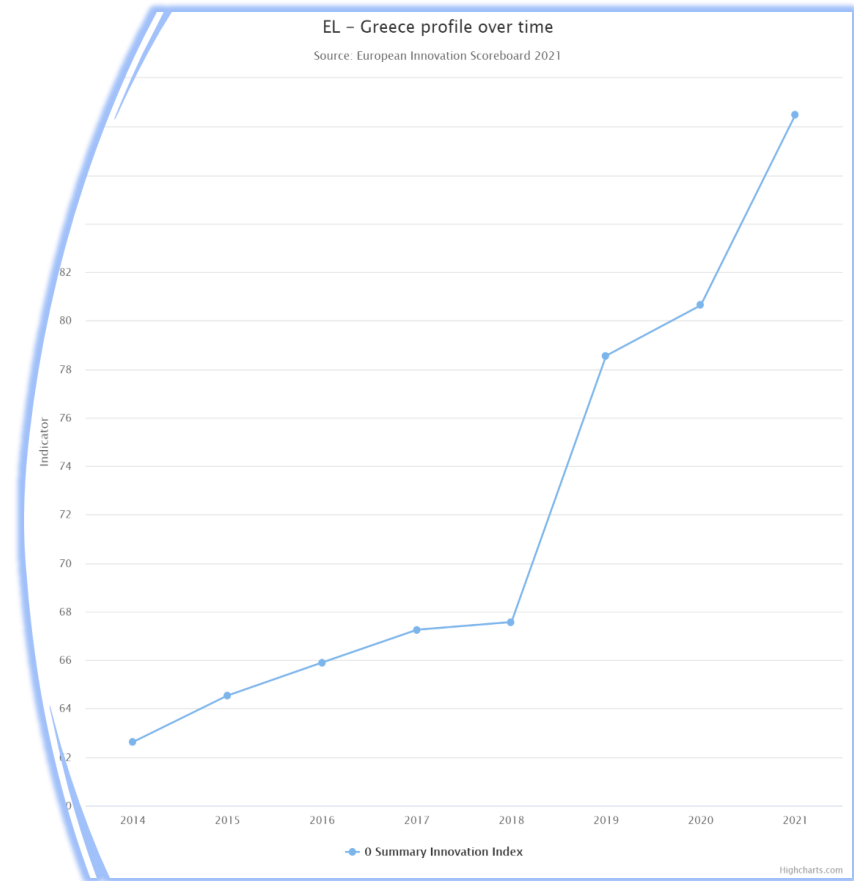
0 Summary Innovation Index

Source: European Innovation Scoreboard 2021



EL - Greece profile over time

Source: European Innovation Scoreboard 2021



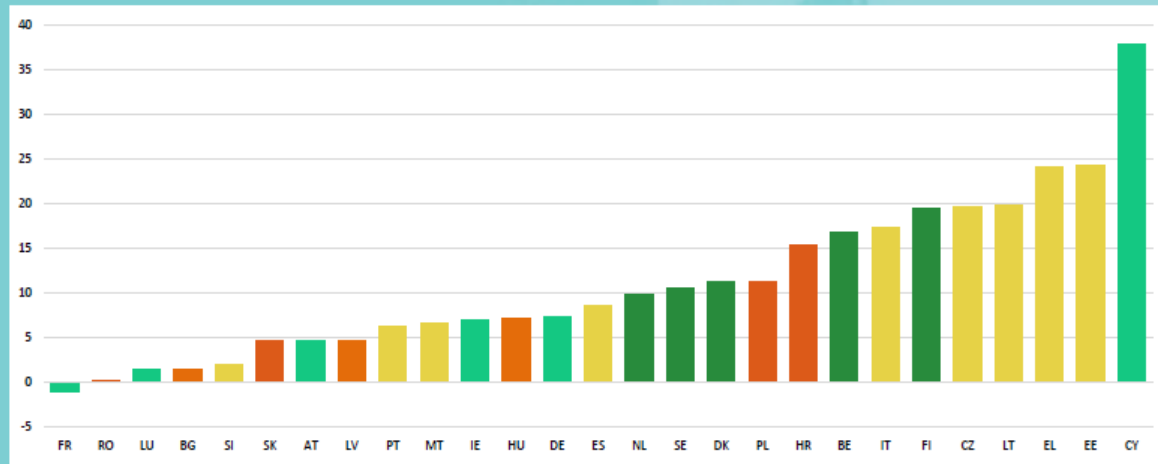
Greece is a Moderate Innovator

Over time, performance relative to the EU has increased strongly, in the last three years in particular

European Innovation Scoreboard 2022



Performance change over time (2015-2022)



Performance change is positive for 26 Member States with **Cyprus** showing the highest performance change



80.2



Change over time: 24.1

89.7 Moderate Innovators

Greece	Performance relative to EU in 2022	Performance change 2015-2022	Performance change 2021-2022
SUMMARY INNOVATION INDEX	80.2	24.1	3.7
Human resources	72.4	4.8	-4.8
Doctorate graduates	70.3	11.4	-11.4
Population with tertiary education	118.3	0.0	0.0
Lifelong learning	18.9	0.0	0.0
Attractive research systems	66.8	9.8	-1.2
International scientific co-publications	84.2	42.1	8.3
Most cited publications	89.6	1.5	0.5
Foreign doctorate students	1.4	-2.1	-13.9
Digitalisation	57.3	0.0	0.0
Broadband penetration	38.5	0.0	0.0
People with above basic overall digital skills	81.8	0.0	0.0
Finance and support	60.7	35.2	7.9
R&D expenditures in the public sector	101.5	40.3	17.7
Venture capital expenditures	48.1	49.5	1.5
Government support for business R&D	25.7	13.6	1.0
Firm investments	71.0	24.8	5.5
R&D expenditure in the business sector	43.2	32.6	7.8
Non-R&D innovation expenditures	106.2	9.0	-8.0
Innovation expenditures per employee	66.8	33.1	15.0
Use of information technologies	37.0	3.3	-9.8
Enterprises providing ICT training	50.0	6.3	-18.8
Employed ICT specialists	22.7	0.0	0.0
Innovators	167.3	106.9	15.1
Product innovators (SMEs)	179.0	123.7	16.6
Business process innovators (SMEs)	157.0	89.0	13.5
Linkages	114.3	59.2	-8.8
Innovative SMEs collaborating with others	174.8	56.6	-16.0
Public-private co-publications	134.4	92.1	19.2
Job-to-job mobility of HRST	58.3	47.1	-14.7
Intellectual assets	53.8	12.8	5.1
PCT patent applications	44.5	8.7	3.1
Trademark applications	91.0	29.9	8.5
Design applications	27.4	4.7	5.0
Employment impacts	124.2	38.1	22.6
Employment in knowledge-intensive activities	80.5	0.0	0.0
Employment in innovative enterprises	158.9	73.0	43.3
Sales impacts	90.6	39.6	8.2
Medium and high-tech goods exports	27.1	14.1	-9.8
Knowledge-intensive services exports	99.3	45.1	46.1
Sales of innovative products	158.0	66.6	-12.2
Environmental sustainability	71.1	-6.3	1.1
Resource productivity	86.3	45.5	17.1
Air emissions by fine particulate matter	71.8	7.4	2.6
Environment-related technologies	55.2	-57.9	-11.7

The second column shows performance relative to that of the EU in 2022. Colours next to the column show matching colour codes: dark green: above 125% of the performance of the EU in 2022; light green: between 100% and 125%; yellow: between 70% and 100%; orange: below 70%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data. The next columns show performance change over time between 2015 and 2022 and between 2021 and 2022, with scores relative to those of the EU in 2015. Positive performance changes are shown in green, negative performance changes in red.

GREECE is a Moderate Innovator with performance at 80.2% of the EU average. Performance is below the average of the Moderate Innovators (89.7%). Performance is increasing (24.2%-points) at a rate higher than that of the EU (9.9%-points). The country's performance gap to the EU is becoming smaller.

Relative strengths

- Product innovators
- Innovative SMEs collaborating with others
- Employment in innovative enterprises
- Sales of innovative products
- Business process innovators

Relative weaknesses

- Foreign doctorate students
- Lifelong learning
- Employed ICT specialists
- Government support for business R&D
- Medium and high-tech goods exports

Strong increases since 2015

- Product innovators
- Public-private co-publications
- Business process innovators

Strong decreases since 2015

- Environment-related technologies
- Foreign doctorate students

Strong increases since 2021

- Knowledge-intensive services exports
- Employment in innovative enterprises
- Public-private co-publications

Strong decreases since 2021

- Enterprises providing ICT training
- Innovative SMEs collaborating with others
- Job-to-job mobility of HRST

Performance change is measured as the **difference between the 2022 and 2015 scores**



Relative to that of the EU in 2015

(See EIS 22 Section 3.3)



COUNTRY PERFORMANCE IN HORIZON 2020

Even better performance in H2020 Vs FP7

Horizon 2020 Key Figures

Participation
5 421
2.54%
of EU total

Number of organisations involved in H2020 projects. One organisation participating in N

Net EU Contribution
1,69B
2.76%
of EU total

Funding received by the project's participants after deduction of their linked third parties' funding

Applications
34.487
3.91%
of EU total

Number of organisations applying for Horizon 2020 grants. One organisation applying in N proposals

Success rate
13,43%
11,98%
EU average

Ratio of the retained proposals to the total number of eligible proposals received

SME Participation
1 299
23,96%
of country total

Number of SMEs involved in H2020 projects. One SME participating in N projects is counted N times

SME Net EU Contribution
359,9M
21,27%
of country total

Total funding received by SME participants after deduction of their linked third parties' funding

ERC Principal Investigators
36
0,45%
of EU total

MSCA Participation
580
2,17%
of EU total

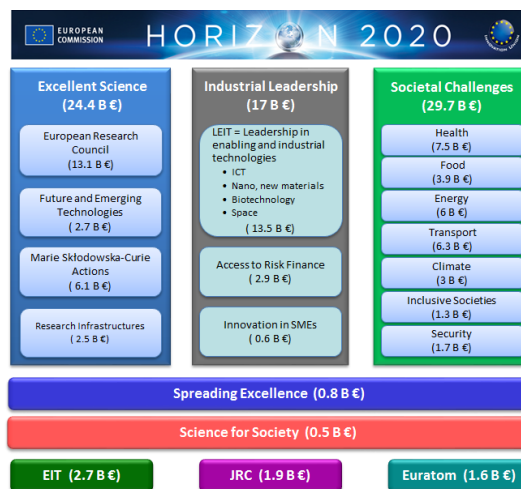
Participation in Horizon 2020

Participation rank
8 out of 28^{EU}

Ranking position based on the participations in H2020, for a country in its country group

Budget share rank
11 out of 28^{EU}

Ranking position based on funding received from H2020, for a country in its country group



#8 out of 28 in participations – #11 out of 28 in budget allocation

Participation in Horizon 2020

Participation rank
8 out of 28^{EU}

Ranking position based on the participations in H2020, for a country in its country group

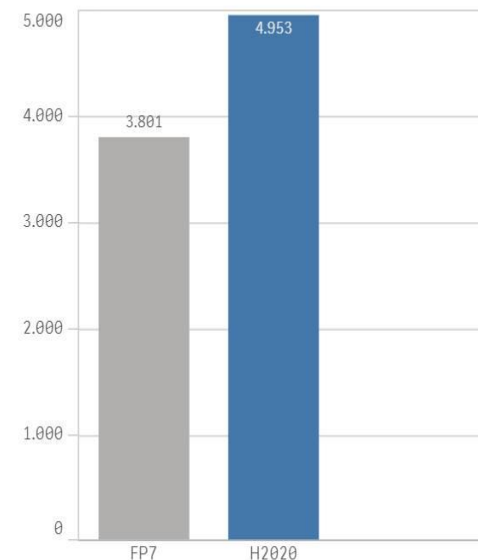
Budget share rank
11 out of 28^{EU}

Ranking position based on funding received from H2020, for a country in its country group

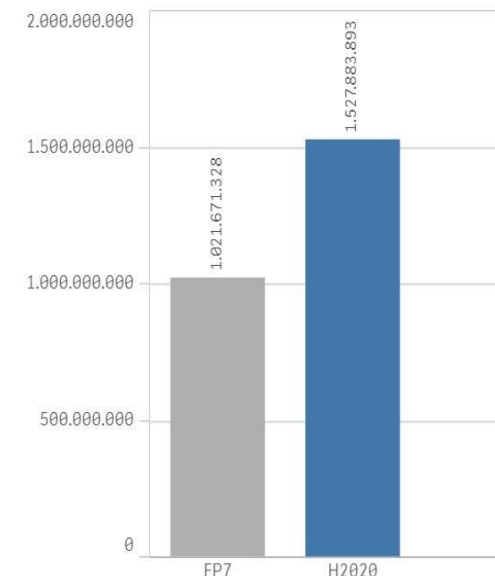
Participation in Programmes - Greece

Participation in Programmes - Greece

Participation across Programmes



EU Contribution (EUR) across Programmes





COUNTRY PERFORMANCE IN HORIZON EUROPE

Participation rank

7 out of 28^{EU}

Ranking position based on the participations in HORIZON EUROPE, for a country in its country group

Budget share rank

7 out of 28^{EU}

Ranking position based on funding received from HORIZON EUROPE, for a country in its country group

Participation

843 ^{4,00%}
of HORIZON EUROPE total

Number of organisations involved in HORIZON EUROPE projects. One organisation participating

Net EU Contribution

305,5M ^{3,76%}
of HORIZON EUROPE total

Funding received by the project's participants after deduction of their linked third parties' funding

Applications

8.048 ^{5,15%}
of HORIZON EUROPE total

Number of organisations applying for HORIZON EUROPE grants. One organisation applying in N

Success rate

20,18% ^{16,35%}
of HORIZON EUROPE total

Ratio of the retained proposals to the total number of eligible proposals received

SME Participation

213 ^{25,27%}
of Greece in HORIZON EUROPE

Number of SMEs involved in projects. One SME participating in N projects is counted N times

SME Net EU Contribution

69,64M ^{22,17%}
of Greece in HORIZON EUROPE

Total funding received by SME participants after deduction of their linked third parties' funding

ERC Principal Investigators

3 ^{0,71%}
of HORIZON EUROPE total

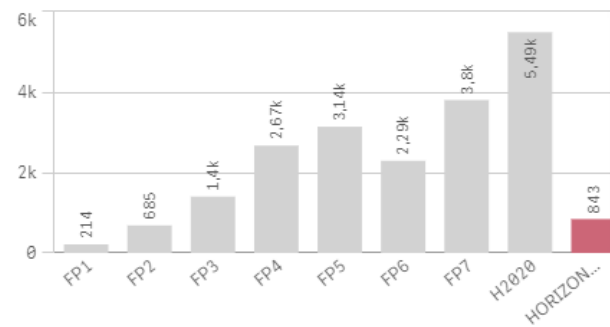
MSCA Participation

0
of HORIZON EUROPE total



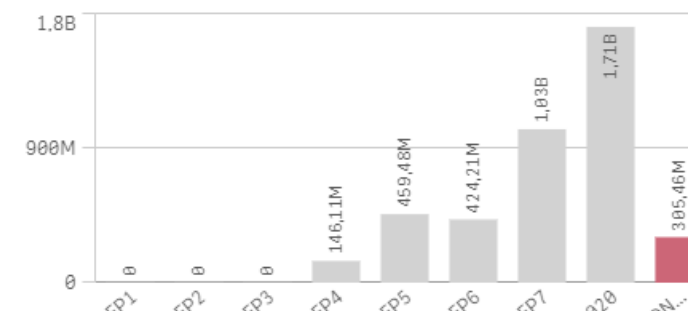
* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme.

Participation across Programmes



Framework Programme

EU Contribution (EUR) across Programmes



Framework Programme

Smart Specialization Strategy 2021-27: The Greek Innovation Journey Green, Digital, Inclusive

- ***Strategic Objectives***
- Production of New Knowledge
- Commercialization and diffusion of Knowledge
- Technological Transformation of the Greek Productive Sector – Innovation adoption
- **Internationalization – Penetration into Global Value Chains**



Internationalization / International R&I Cooperation



Participation to Horizon Europe and ERA (Partnerships, Missions, Widening, ERA Policy Actions etc.)



Access to international Research Organizations and facilities (CERN, EMBL etc.)



Bilateral and Multilateral R&D Cooperation



Support International Networking of Business and Research Organizations

CERN Industrial Return to Greece (approximate figures)

- CERN ANNUAL BUDGET 1.2 BCHF
- GREEK CONTRIBUTION (1.05%) 12.5 MCHF
- CERN ANNUAL EXPENDITURES ($\approx 33\%$) 0.4 BCHF (supplies + services)
- **EXPECTED ANNUAL GREEK INDUSTRIAL RETURN ($\approx 33\%$) 4 MCHF**

Actual return to Greek firms

- 2018 : 2.4 MCHF
- 2019 : 3.3 MCHF
- 2020 : 2.0 MCHF
- 2021 : **1.3 MCHF**
- 2022 (Sep): **1.1 MCHF**

It is much desired to join efforts between the Greek firms and the CERN procurement group to INCREASE the return



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Thank you for your attention!

For more information
<https://gsri.gov.gr/en>

