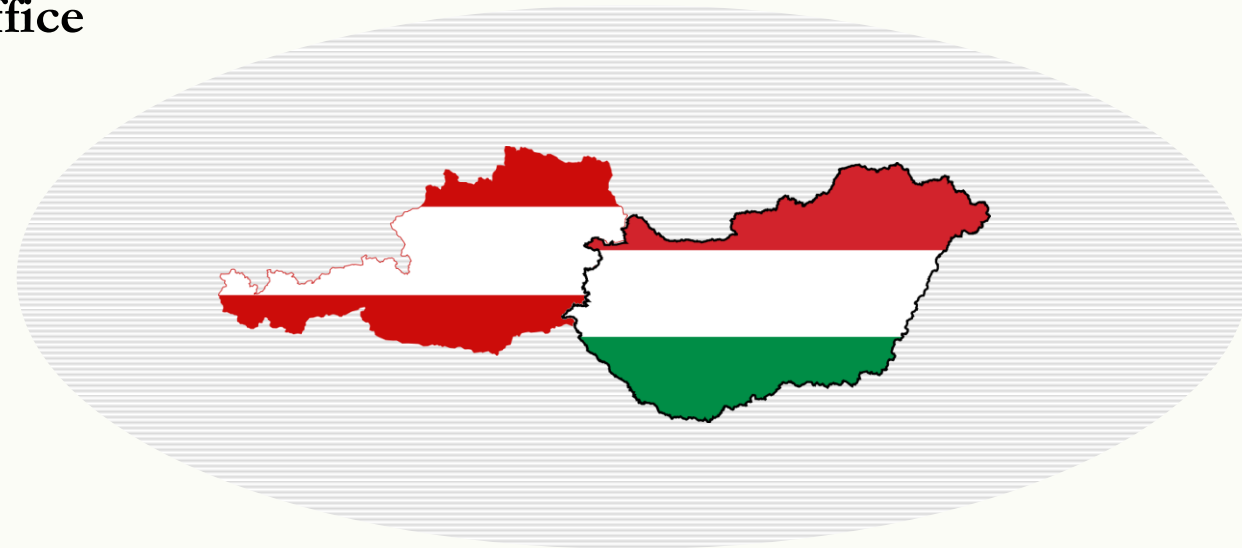


The National Research Development and Innovation Office and RDI Cooperation opportunities between Austria and Hungary

József Pálincás, President
National Research, Development and Innovation Office
of Hungary

Wissenschaftsfonds FWF
Vienna, Austria
14.07. 2017

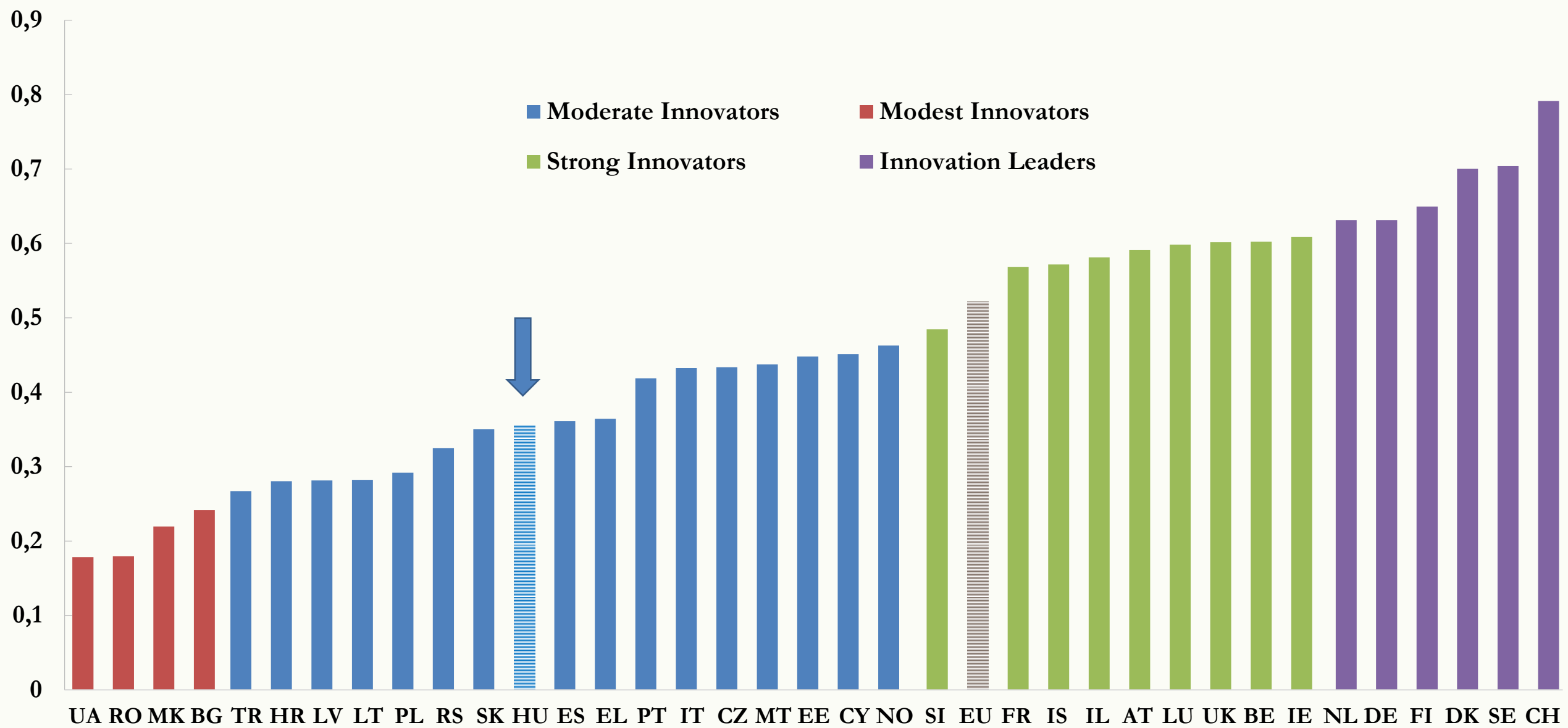


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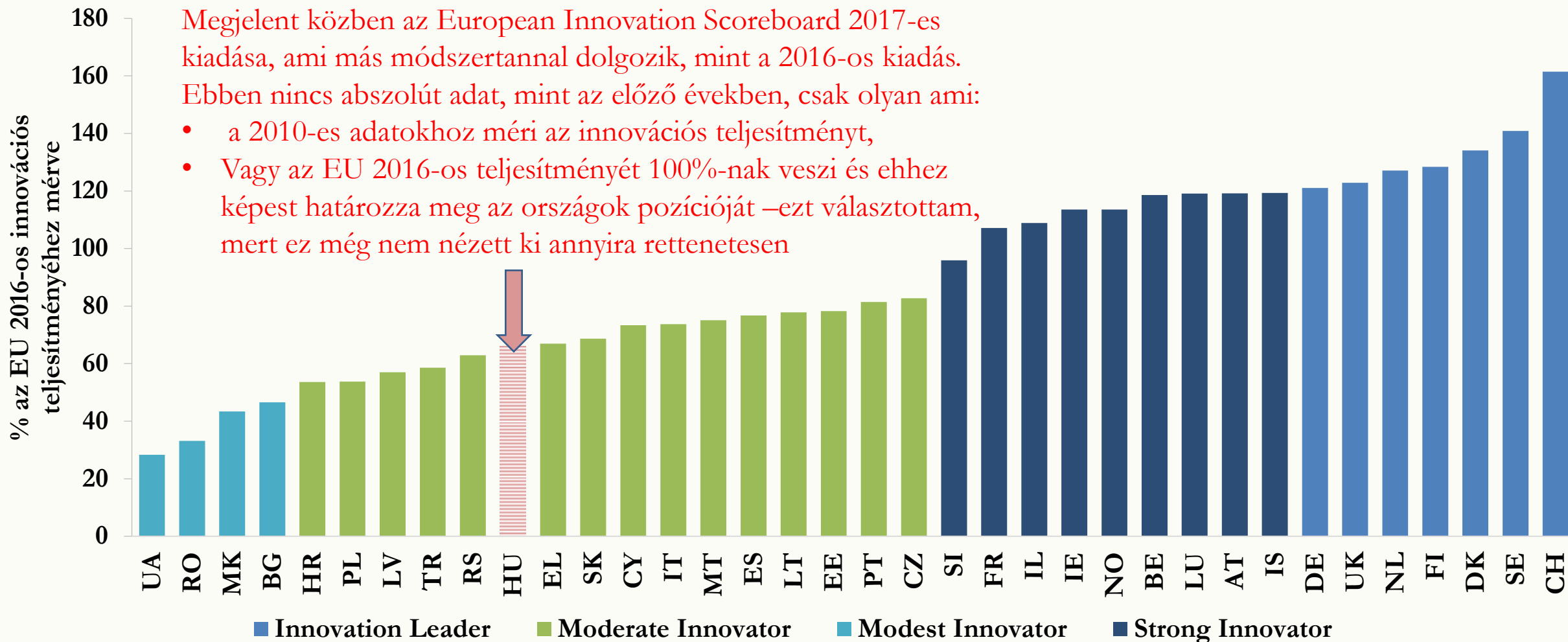


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Innovation Union Scoreboard, 2016



European Innovation Scoreboard 2017



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R&D expenditures and use of R&D funding, 2015

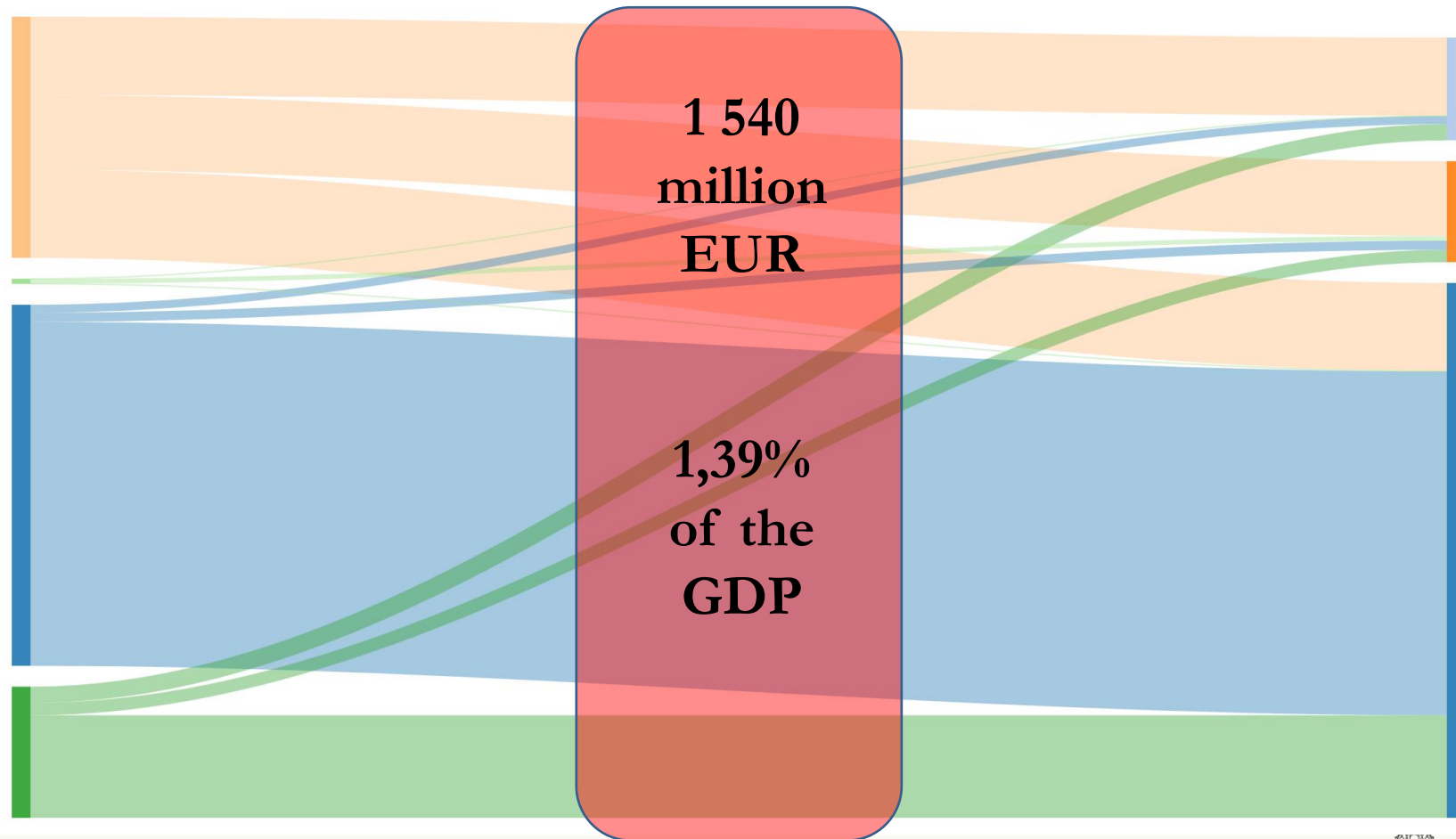
EXPENDITURES

Governmental
(35%)

Non-profit
(>1%)

Business
enterprise
(50%)

Foreign(15%)



USE OF FUNDING

Governmental sector
R&D (14%)

Higher education
sector R&D (12%)

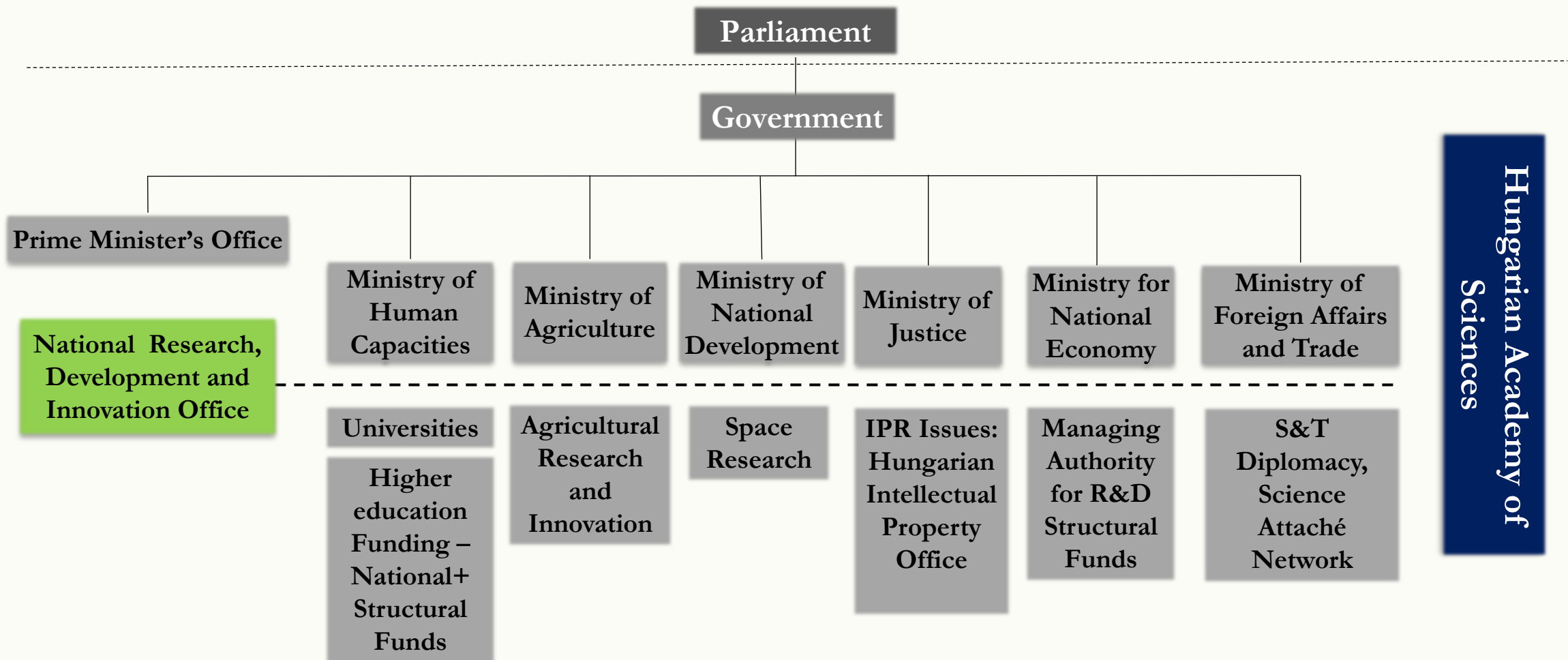
Business enterprise
sector R&D (74%)

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Governmental Structure of RDI in Hungary



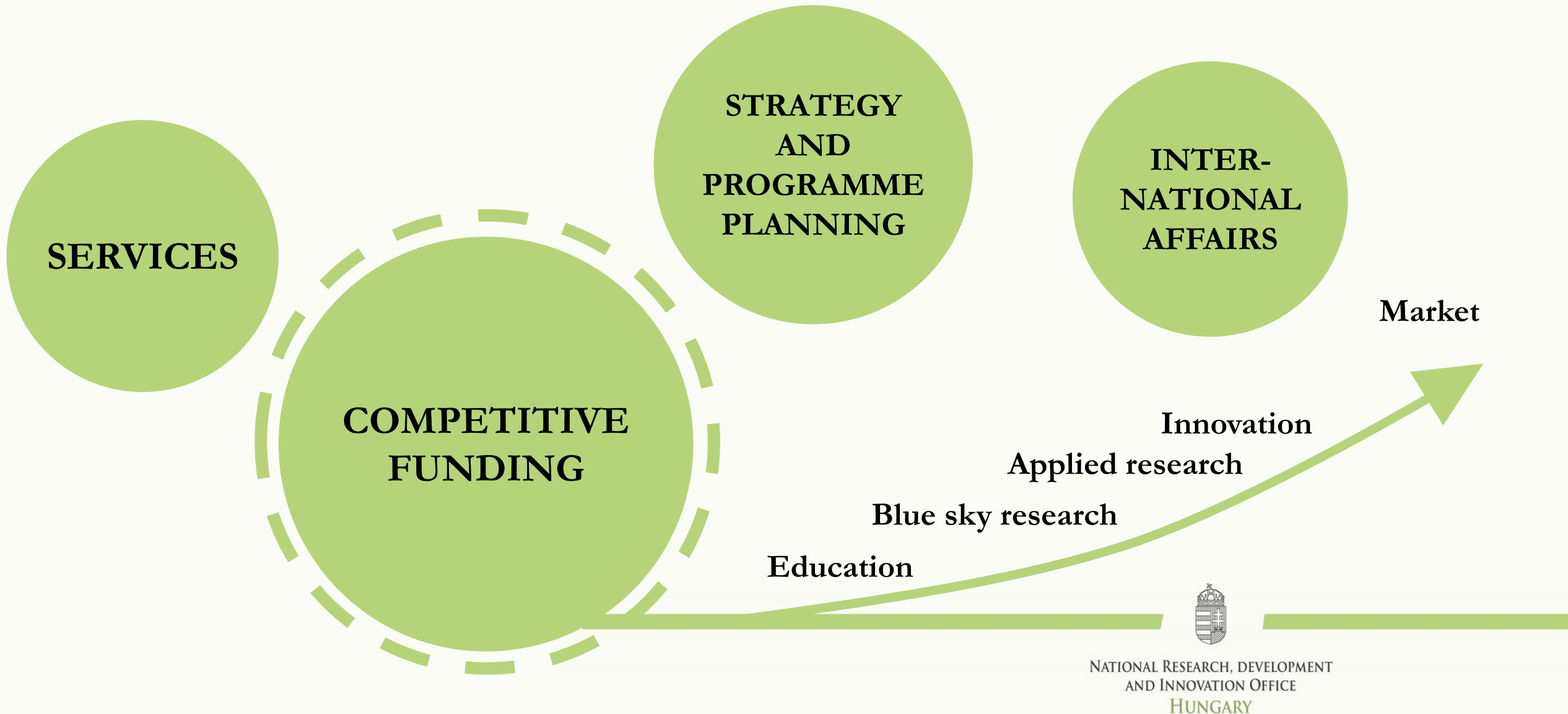
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National Research, Development and Innovation Office

the central governmental entity for RDI in Hungary



National Research, Development and Innovation Office

INCREASING
COMPETITIVENESS
THROUGH
EFFECTIVE
PLANNING AND
FUNDING OF
R&D&I

Mission

STRATEGY
PLANNING

FUNDING

REPRESENTING

Mandate

A WORLD-CLASS RDI
FUNDING AGENCY

CREATING
INTERNATIONALLY
ATTRACTIVE RDI
ENVIRONMENT

LINKING RDI TO
THE ECONOMY &
SOCIETY FOR
INCREASE GROWTH
& PROSPERITY

Vision

EXCELLENCE

TRANSPARENCY

INTEGRITY

TRUST

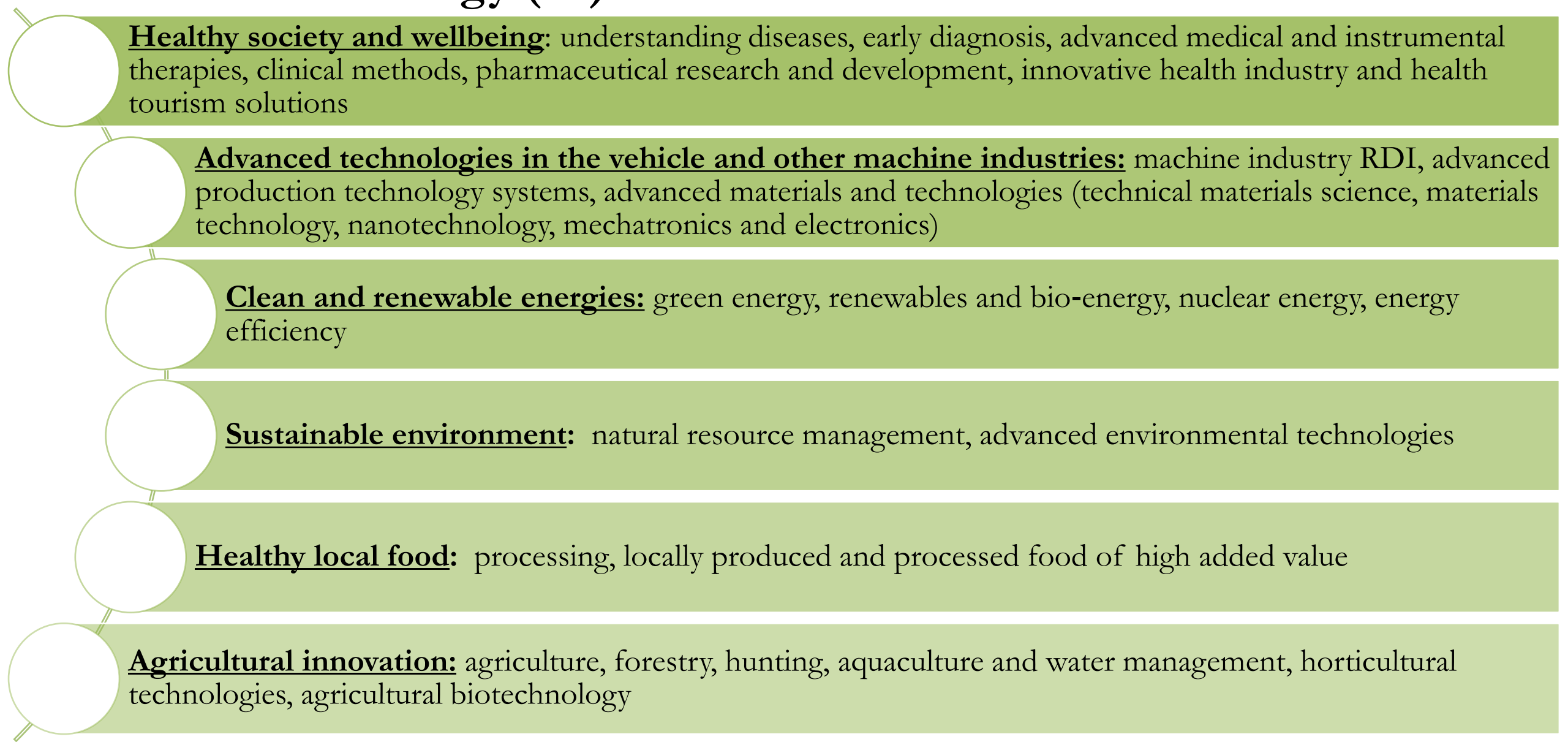
Values

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Sectoral priorities of the national smart specialisation strategy (S3)



Healthy society and wellbeing: understanding diseases, early diagnosis, advanced medical and instrumental therapies, clinical methods, pharmaceutical research and development, innovative health industry and health tourism solutions

Advanced technologies in the vehicle and other machine industries: machine industry RDI, advanced production technology systems, advanced materials and technologies (technical materials science, materials technology, nanotechnology, mechatronics and electronics)

Clean and renewable energies: green energy, renewables and bio-energy, nuclear energy, energy efficiency

Sustainable environment: natural resource management, advanced environmental technologies

Healthy local food: processing, locally produced and processed food of high added value

Agricultural innovation: agriculture, forestry, hunting, aquaculture and water management, horticultural technologies, agricultural biotechnology

Horizontal priorities of the national Smart Specialisation Strategy (S3)

ICT (infocommunication technologies) & Services:

info-communication technologies in support of the sectoral priorities, infocommunication technologies and services. Some examples:

- smart business, manufacturing, company, home
- smart city
- 3D printing
- future internet
- cloud computing
- “Internet of things”

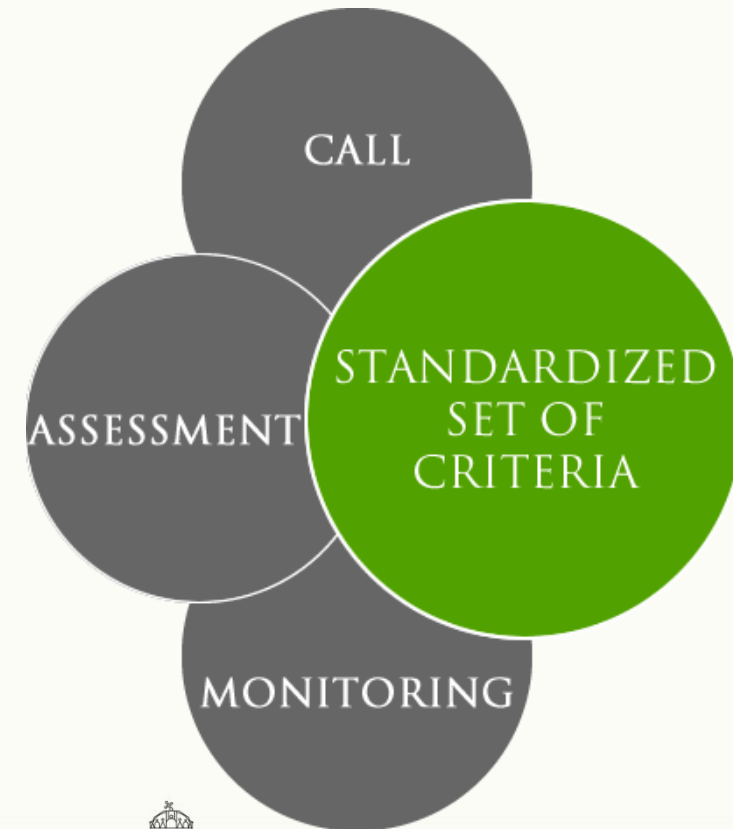
Inclusive and sustainable society, viable environment

- Education and training,
- Health-conscious education and prevention
- Awareness raising
- Promoting entrepreneurial skills
- Development of cooperation
- Networking
- Organization and management development
- Social innovation
- Connection to local and regional development programmes
- Regional development, tourism

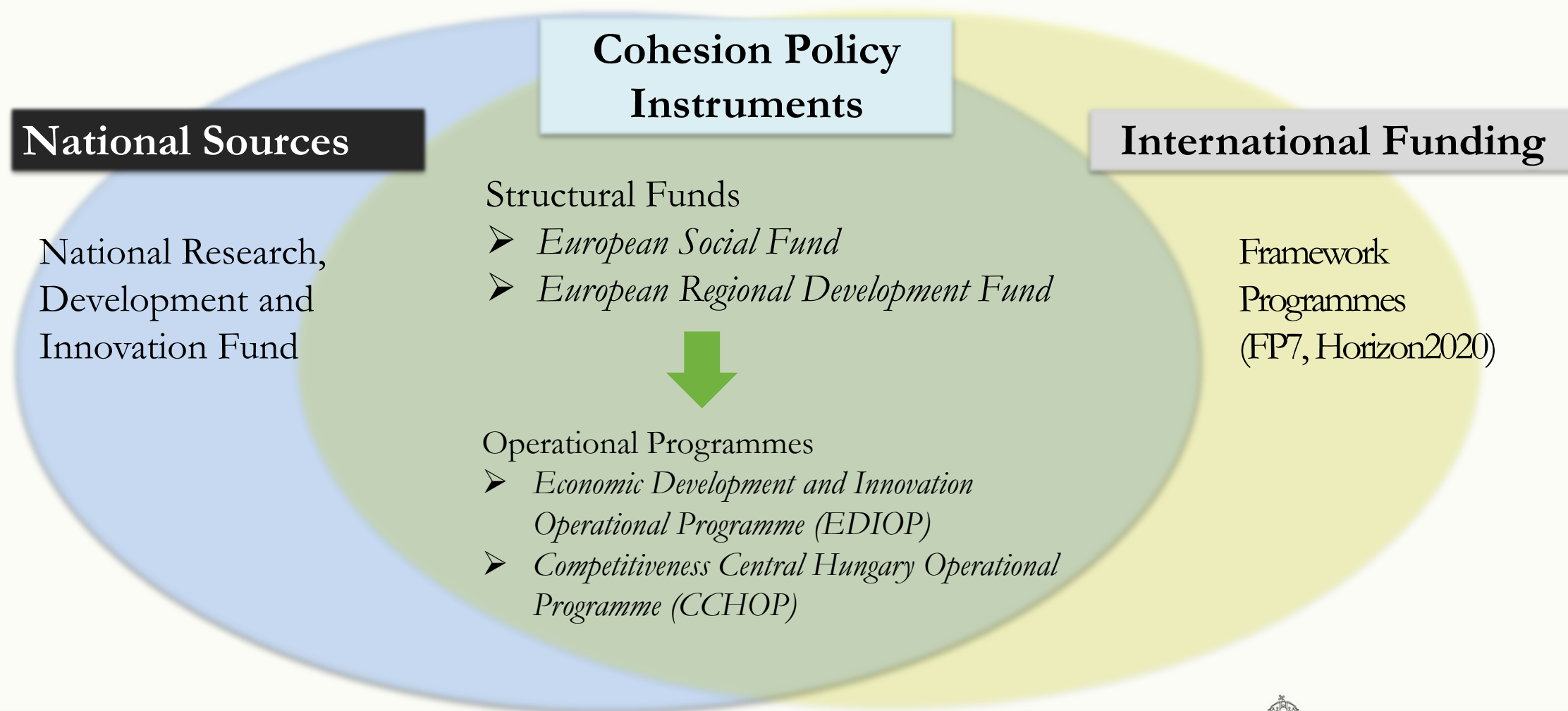
Coordination of resources in a competitive funding system

- coordinated management, flexible planning, complex portfolio of calls
- well-balanced support to discovery research, experimental development and innovation
- novelty, applicability, marketability, international competitiveness, sustainability
- challenge-oriented funding
- practical applicability of RDI results

The power of excellence



The Sources of R&D Funding in Hungary

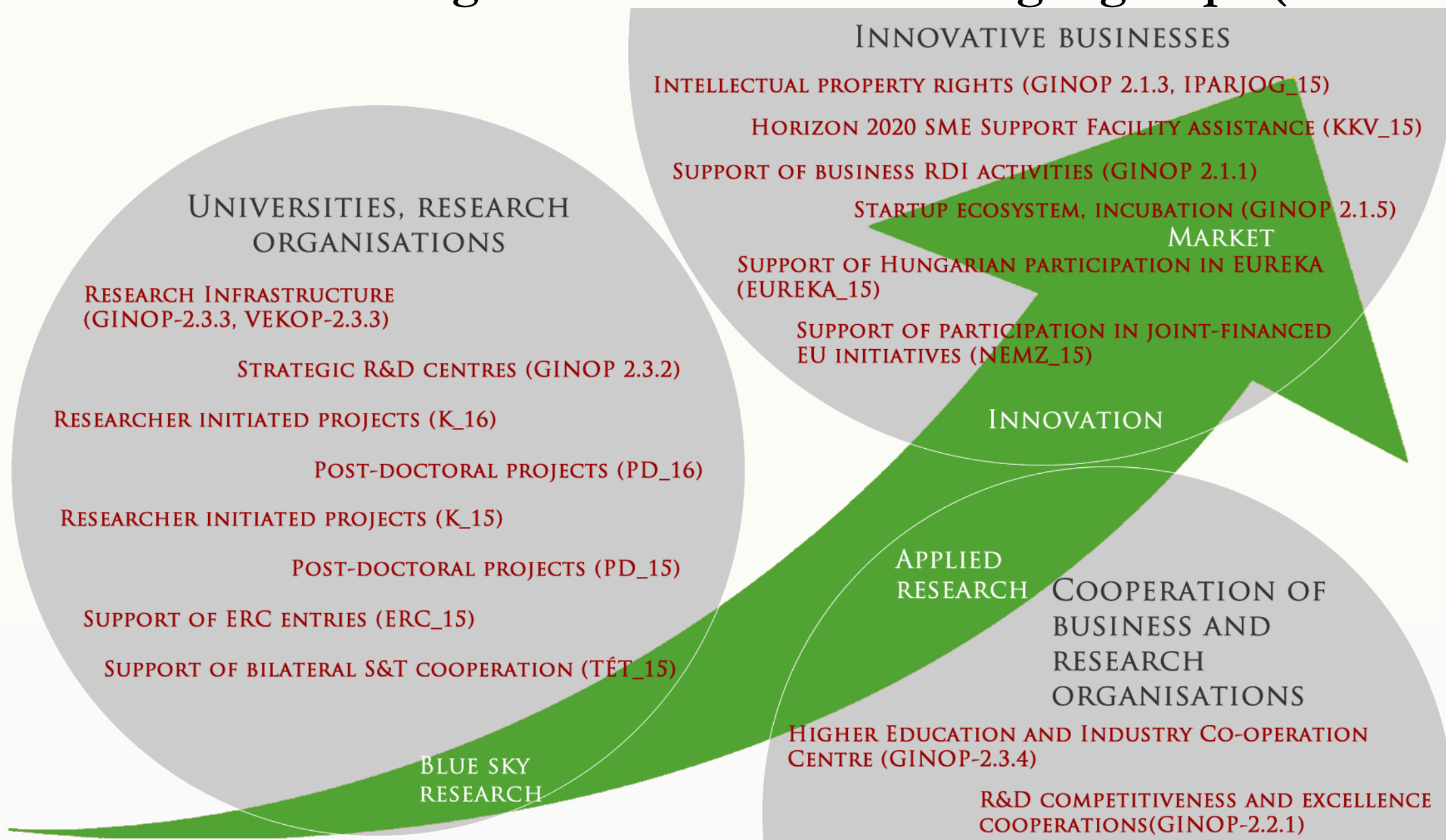


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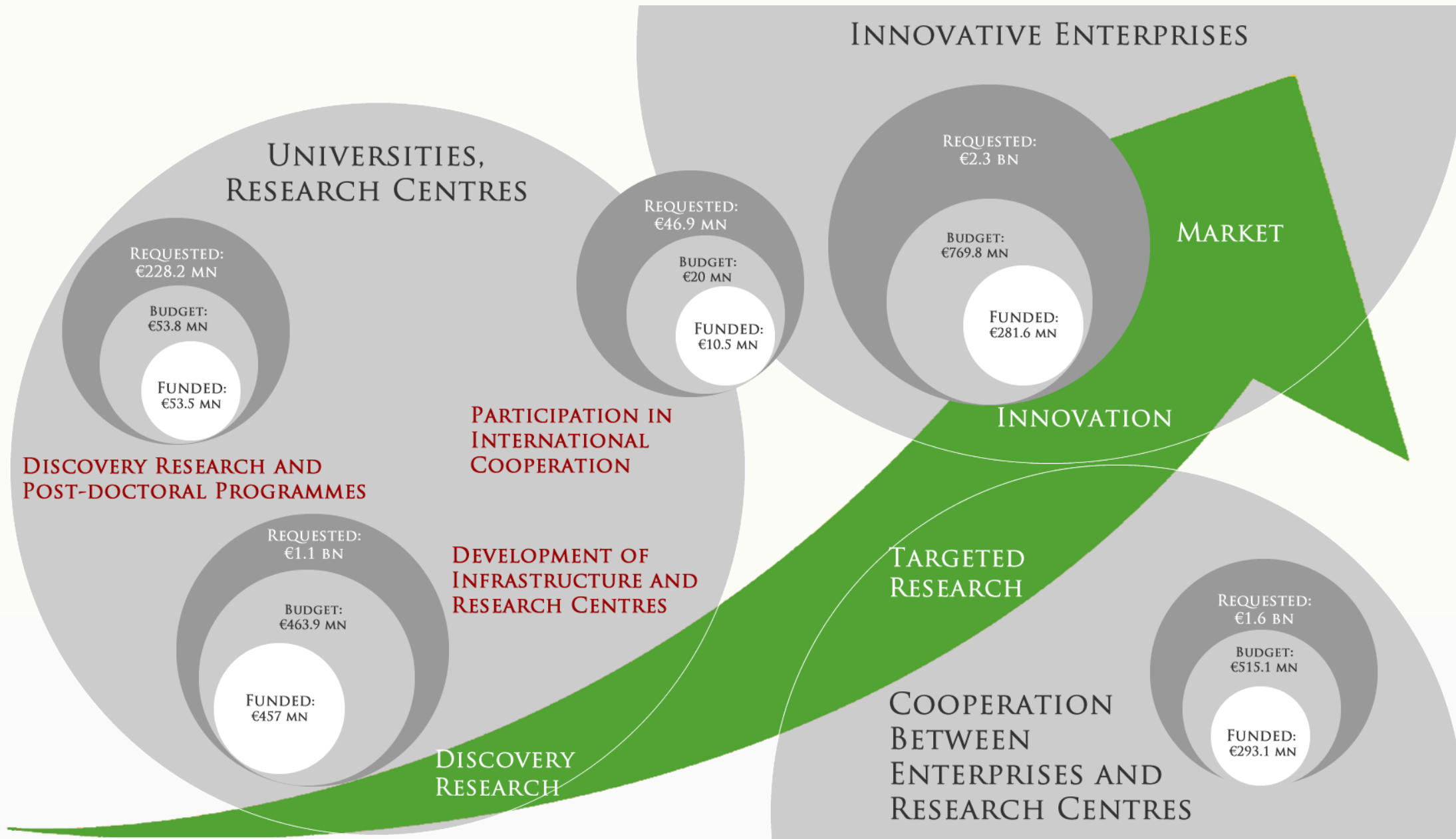


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Funding of the different RDI target groups (2015-2016)



Funding of the different RDI target groups (2015-2016)



Funding decisions in 2016:

Significant resources allocated to all sectors

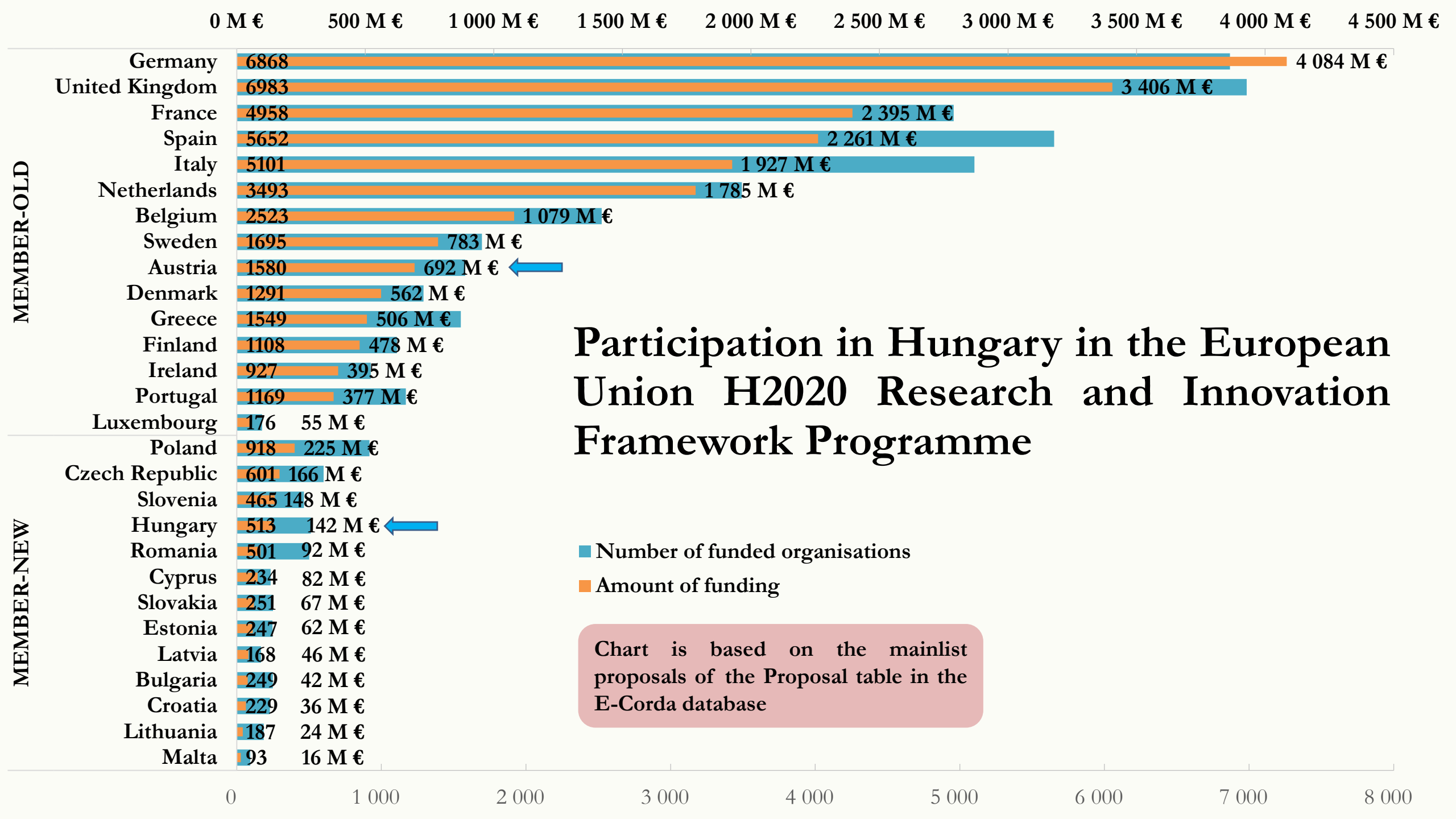
Requested RDI resources (GINOP, VEKOP, NRDIF):	4 405 m EURO
• Resources allocated (GINOP):	691 m EURO
• Positive expert opinion (VEKOP):	32 m EURO
• Resources allocated (NRDIF):	218 m EURO
• Altogether	941 m EURO

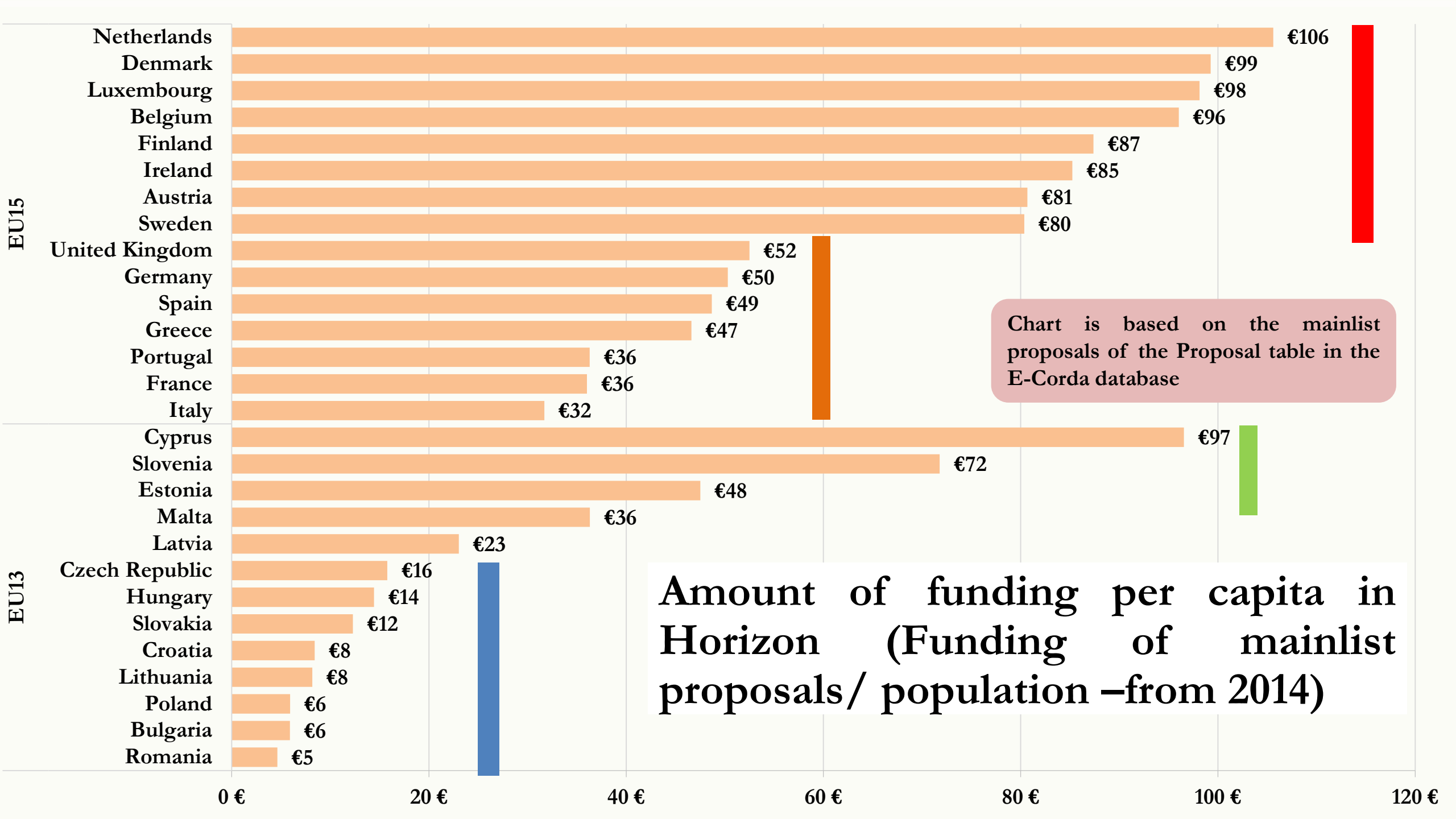
Number of proposals:

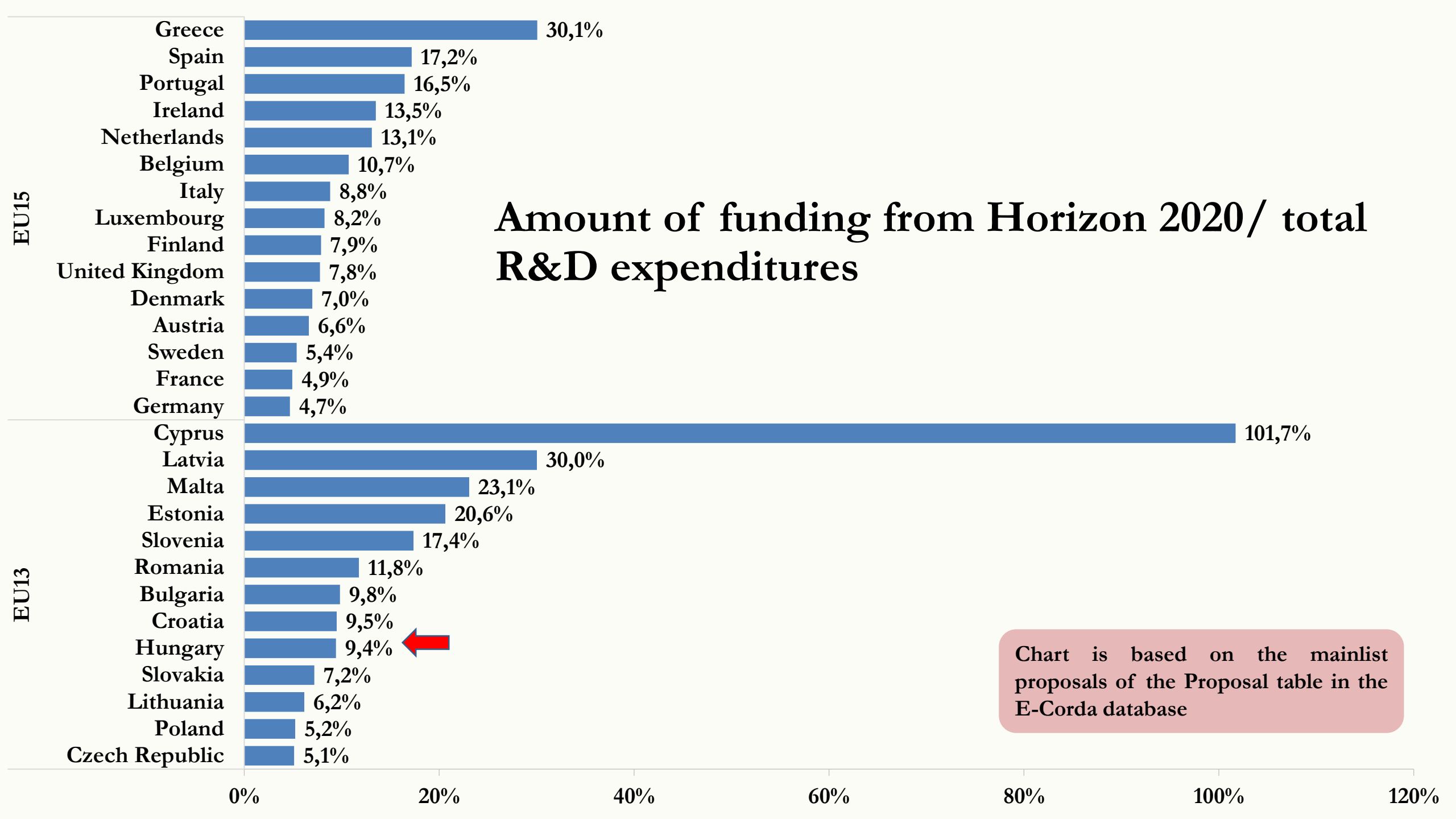
• GINOP:	4 231
• VEKOP:	972
• NRDIF:	3 868
• Altogether:	9 071

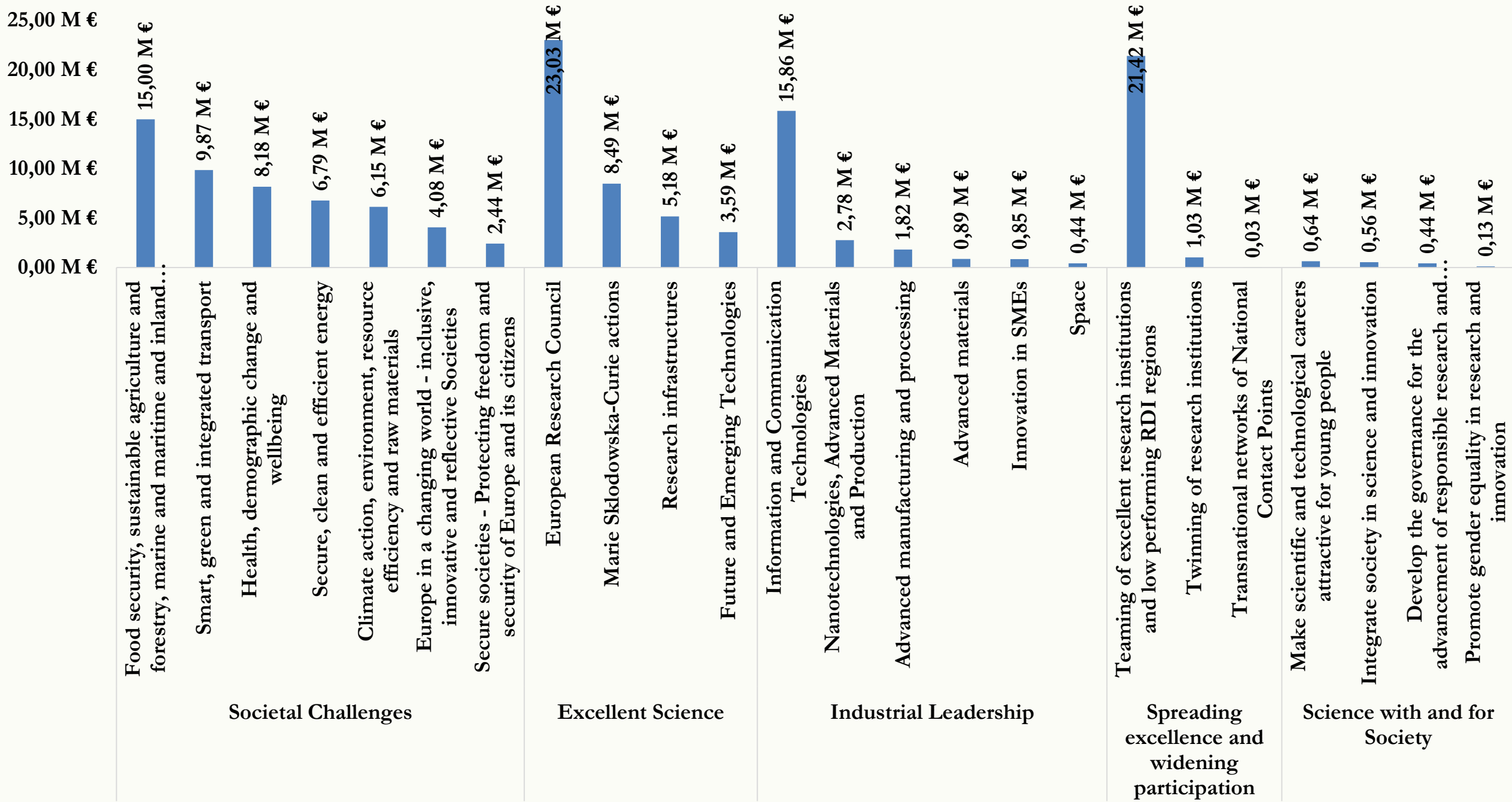
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EU Horizon 2020 results by thematic areas in Hungary

Two funded Hungarian research initiatives among 10 European Teaming proposals



The main goal of the Centre of Excellence on Cyber-Physical Production Systems is to boost the innovation process, to create industry-relevant results, to train the next generation of highly skilled experts and to ensure the background for a sustainable and competitive production ecosystem for various industry sectors in Hungary and in Europe

Full budget:
€21,7 million

Members of the consortium:

- Budapest University of Technology
- Hungarian Academy of Sciences
- Fraunhofer institutions



The goal of the project is to set up the Hungarian Centre of Excellence for Molecular Medicine placing strong emphasis on translational medicine and promoting the clinical application of basic research results.

Full budget:
€52, million

Members of the consortium:

- University of Szeged
- Hungarian Academy of Sciences
- University of Debrecen
- Semmelweis University
- European Molecular Biology Laboratory

What is ELI?

ELI-DC

Brussels

The consortium that is responsible for the coordination of the three research centres during implementation

ELI-ALPS

Szeged

Hungary

ultrashort laser pulses at high repetition rate

ELI-BL

Dolny Brezany

Czech Republic

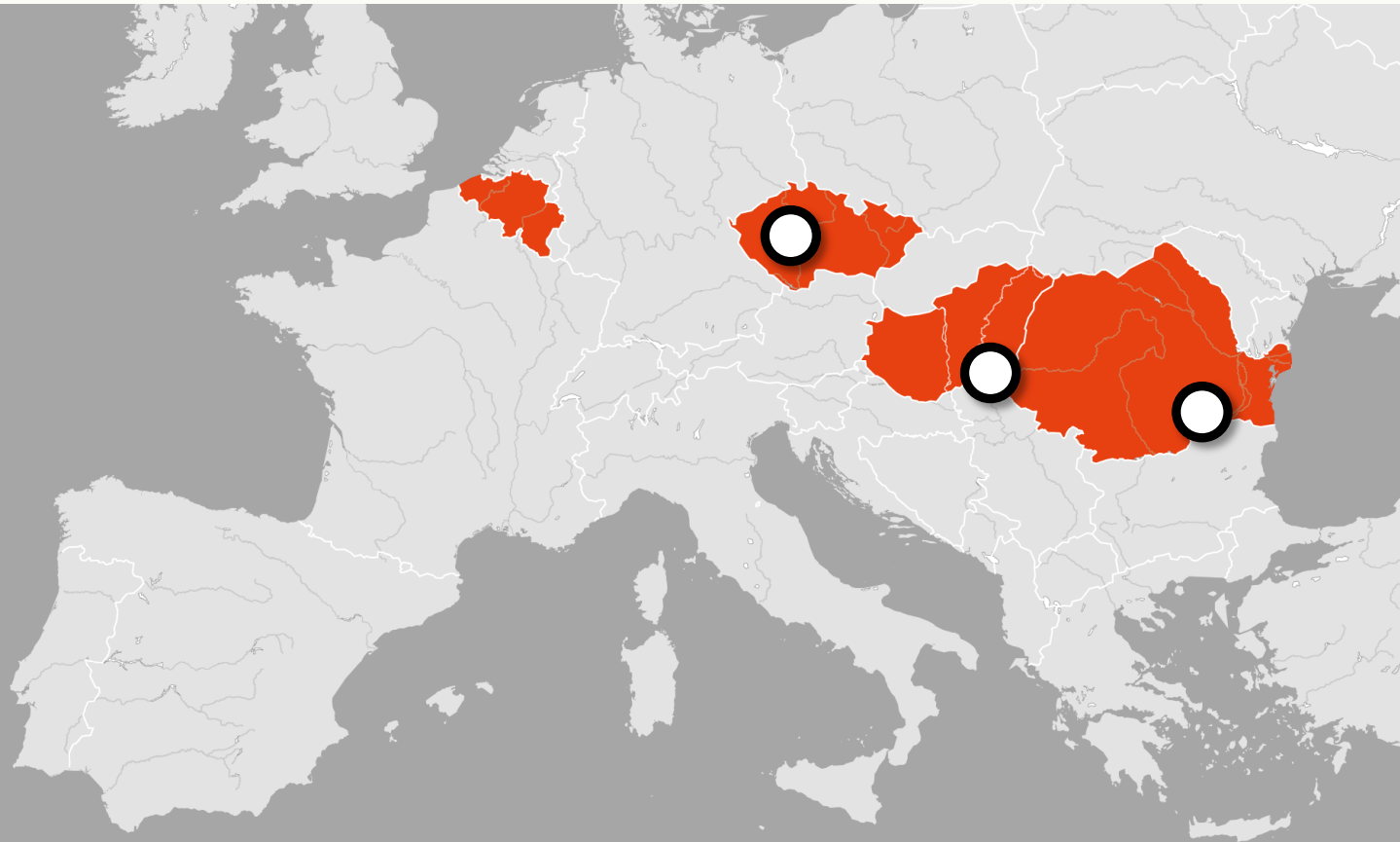
ultrashort x-ray generation, particle acceleration

ELI-NP

Magurele

Romania

ultra-intense optical and gamma ray pulses



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ELI project – Location in Hungary

Szeged

- Szeged, Southern Great Plain
- Brownfield investment
100 / 10 ha
- 165 km from Budapest
on motorway M5
- 5 km from the city centre
- Perfect transport connection
on the motorway to the
international airport

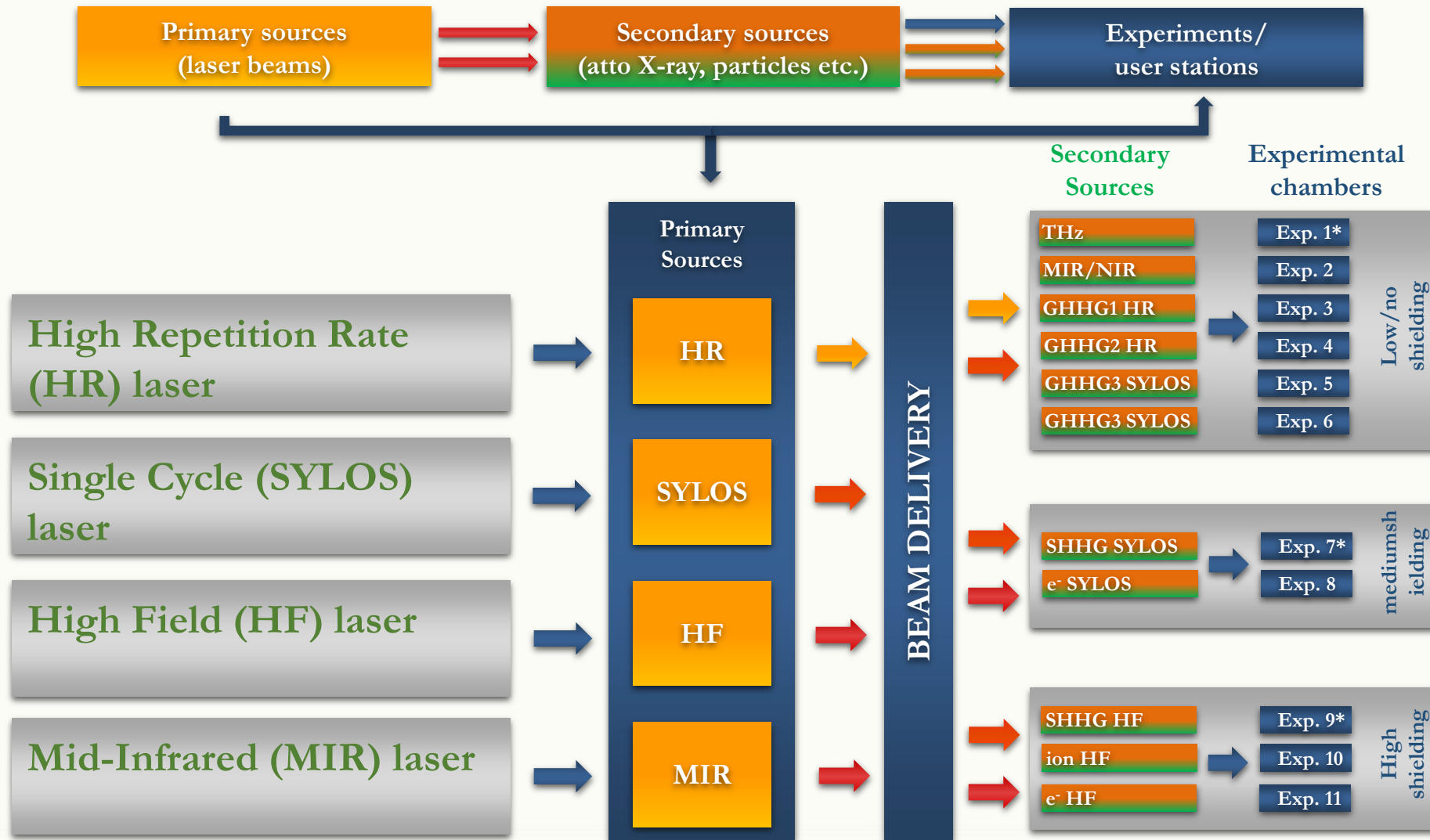


Missions of ELI-ALPS



- To generate X-UV and X-ray **femtosecond and attosecond pulses**, for temporal investigation at the attosecond scale of electron dynamics in atoms, molecules, plasmas and solids.
- To contribute to the technological development towards **high average power, high peak intensity** lasers.

Schematics of ELI-ALPS



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*R&D

ELI – beyond 2018



ELI will be

- the world's **first international laser user facility**, providing unique research opportunities for the future

“The CERN of laser research”



- a **distributed research infrastructure** based initially on 3 facilities in the Czech Republic, Hungary and Romania
- the first ESFRI project to be **implemented in the new EU Member States**
- **pioneering a novel funding model** combining structural funds (ERDF) for the implementation and contributions to an ERIC for the operation



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ELI Access Modes

Users

Can be individuals, teams, consortia and institutions from academia, business, industry and public services

Excellence-driven access (non-proprietary):

- Exclusively dependent on the scientific excellence, originality, quality
- Project selection through peer review by a specialized panel of experts
- Users must publish the research results in the scientific journals. The option of open access publication is considered

Market-driven access (proprietary):

- Access is defined through an agreement between the User and ELI-ERIC
- Application of an Access fee to cover the cost for ELI usage
- Research results may remain confidential and lead to proprietary IP
- Up to 5-10% of the Users' access time, that may differ from pillar to pillar in agreement to the national commitments to DG Regio: ALPS case: 5%

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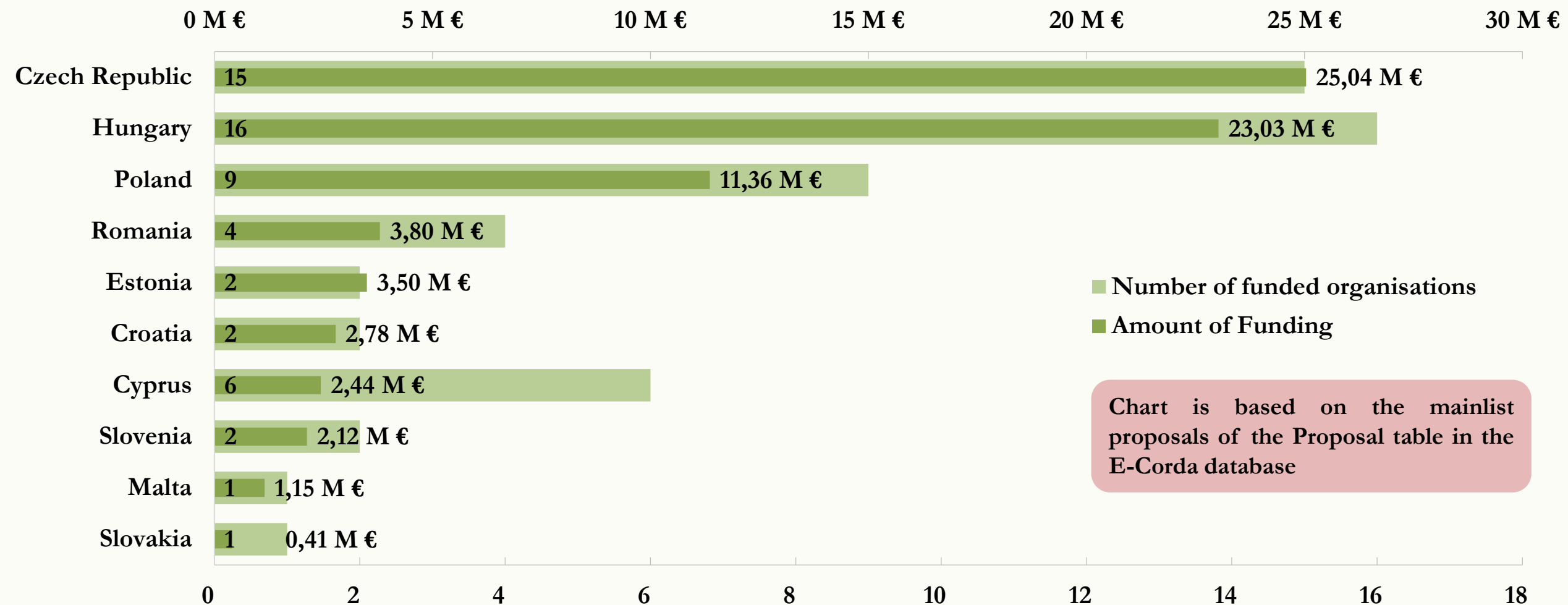
NURTURING EXCELLENT RESEARCH

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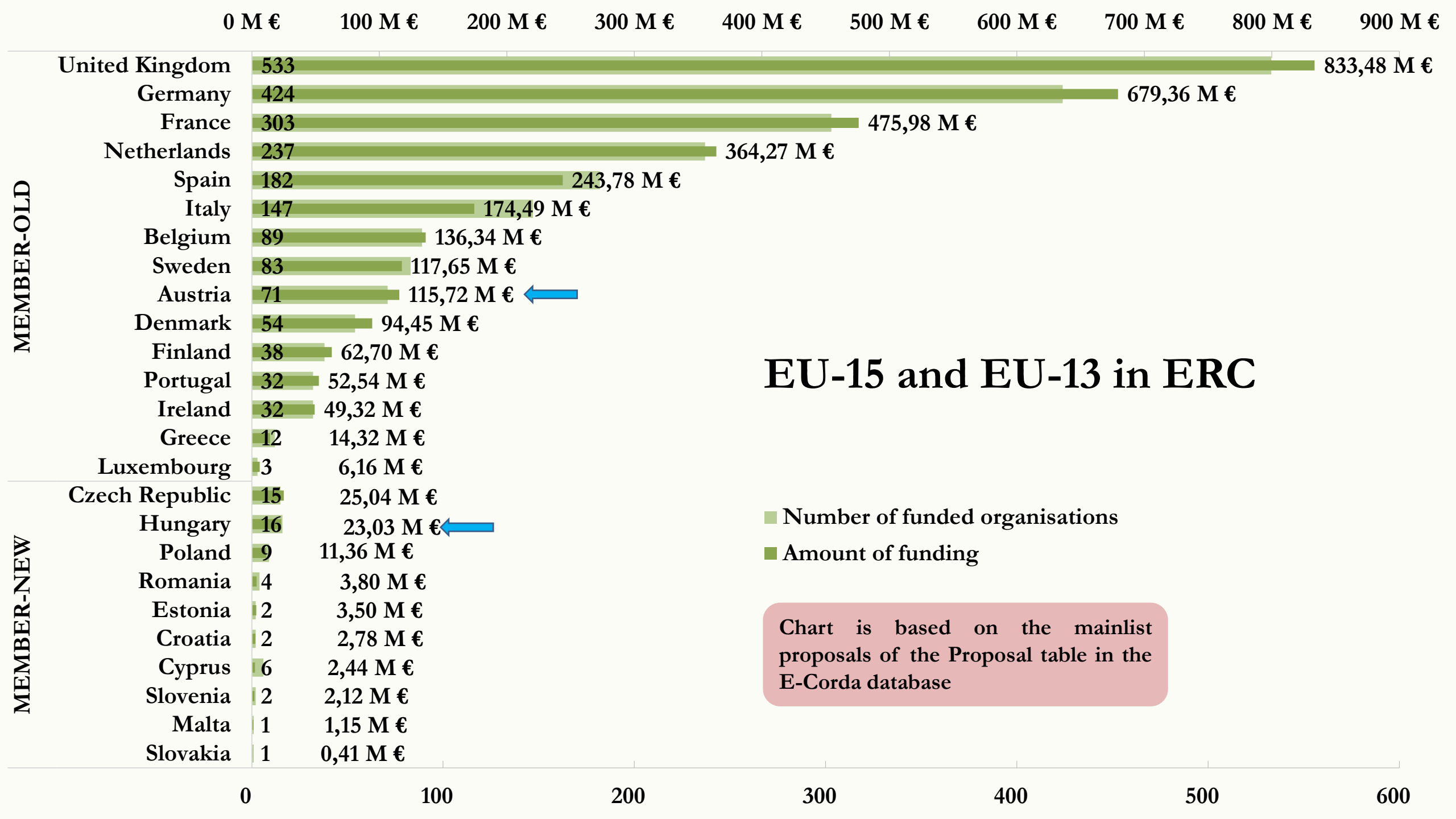
ERC Participation in H2020 in EU13 countries



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Supporting excellence: programmes of the NRDIO

EXCELLENCE PROGRAMMES PROMOTING THE INTERNATIONAL COMPETITIVENESS OF DISCOVERY RESEARCH	ERC	KKP_17	KH_17	
	Funding programmes promoting access to European Research Council (ERC) programmes	“Frontline” Research Excellence Programme	Funding of research groups whose outstanding achievements have a significant international impact on scientific forums with major visibility	
	BUDGET: HUF 0.45 BN	BUDGET: HUF 3 BN	BUDGET: HUF 1 BN	
RESEARCHERS’ THEMATIC APPLICATIONS PROGRAMMES, POSTDOCTORAL PROGRAMMES PROMOTING DISCOVERY RESEARCH	PD_17	FK_17	K_17	NN, ANN, SNN 17
	Postdoctoral excellence programme	Calls for thematic applications initiated by young researchers	Calls for thematic applications initiated by researchers	Calls for thematic applications based on international cooperation
	BUDGET: HUF 1.5 BN	BUDGET: HUF 3 BN	BUDGET: HUF 6.5 BN	BUDGET: HUF 6.5 BN

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Momentum Programme – Hungarian Academy of Sciences

Main principle:

EXCELLENCE

Logic

The Momentum Programme – first launched in 2009 – aims at the renewal of research in the academic sphere by the support of excellent Hungarian researchers.

- Giving more flexibility to cutting edge research
- Creating predictable career paths for researchers
- Improving transition from one field to another: encouraging researchers and institutions to embark on careers in emerging fields of science
- Funding trend setting research

110 research groups are financed with 10 million € yearly.

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The correlation of national support and international competitiveness



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PIs IN
MOMENTUM
PROGRAMME

121

HUNGARIAN
PIs IN ERC

62

RESEARCHERS
THAT ARE PIs
IN BOTH
PROGRAMMES

22



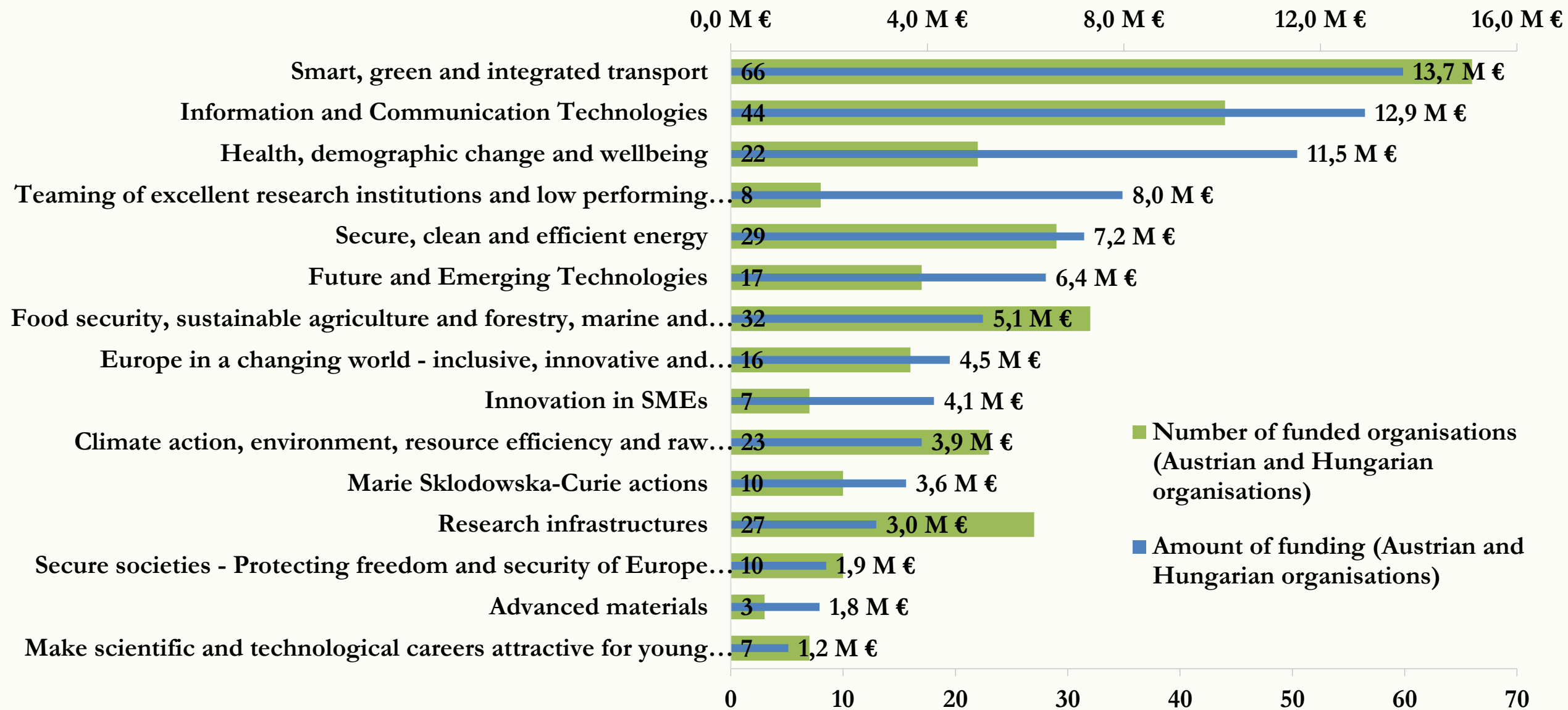
COOPERATION BETWEEN AUSTRIA AND HUNGARY

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Top 15 themes of cooperation between Austria and Hungary in H2020



Bilateral Hungarian-Austrian intergovernmental Scientific and Technological (S&T) cooperation

Bilateral Hungarian-Austrian intergovernmental S&T agreement signed in 1969

Implementation: regular joint S&T calls to support researchers' mobility
(NRDI Office and Austrian Federal Ministry of Science, Research and Economy, coordination Federal Ministry for EU, Integration and Foreign Affairs)

Last Joint S&T Committee meeting in March 2016 – decision about supporting 13 joint projects

A new joint HU-AT S&T call was launched in February 2017 with a deadline in April (applications are under evaluation)

Bilateral Cooperation – Lead Agency Calls

Bilateral Agreement between FWF and the legal predecessor of the National Research, Development and Innovation Agency

Logic

Evaluation of bilateral cooperation calls is carried out by the funding agency where the applicant national partner organization requests the larger amount of funding in the project.

Since 2012 the NRDIO and its legal predecessor granted funding to 20 organisations

Trilateral agreement – Austria - Hungary - Republic of Korea



- Based on earlier bilateral agreements between the National Research Foundation of Korea and the FWF, and between the FWF and the legal predecessor of NRDIO a trilateral agreement was signed in October 2014.
- A call was opened in April, 2016 based on the trilateral agreement, but no trilateral project proposal was submitted – only 2 Korean-Hungarian cooperation proposals were funded in 2016.
- The agreement is still in effect but no further call was launched.

THANK YOU FOR YOUR ATTENTION!

www.nkfi.gov.hu/english

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