Eesti Teadusagentuur
Estonian Research Council

Horizon 2020
Environment

Ülle Napa

NCP for Horizon 2020 SC5

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Climate action, environment, resource efficiency and raw materials

H2020 structure
- total budget 77 028 mil. € (2014-2020)

I. Excellent Science	II. Industrial Leadership	III. Societal Challenges
ERC	LEIT (ICT, Nanotechnologies, Advanced materials, Biotechnology, Manufacturing and Processing, Space)	Health, demographic change and wellbeing
FET		Food security, sustainable agriculture … and bioeconomy
Marie- Sklodowska-Curie Actions		Secure, clean and efficient energy
		Smart, green and integrated transport
Infrastructures	Access to Risk Finance	Climate action, environment, resource efficiency and raw materials
	Innovation in SMEs	Inclusive, innovative and reflective societies
		Secure societies

Societal challenge 5 = SC5

Spreading excellence and widening participation
Science with and for Society
Joint Research Centre (JRC)
The European Institute of Innovation and Technology (EIT)

resource efficiency
ecosystems conservation
sustainable developement
sustainable economy
climate forecast
raw materials
mitigation measures
environmental protection
water resource
modelling
climate change
climate actions
eco-innovation
environmental monitoring
cultural heritage

Mainstreaming of climate and sustainable development objectives

- **Climate action, resource efficiency and sustainable development supported across the whole of Horizon 2020**

- **At least 60% of the overall Horizon 2020 budget should be related to sustainable development**

- **Climate-related expenditure should exceed 35% of the overall Horizon 2020 budget**

Objective:

To achieve a

- **resource – and water – efficient and climate change resilient economy and society,**
- **the protection and sustainable management of natural resources and ecosystems,**
- **a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems.**

Horizon 2020 environment topics 2016-2017

- broader topics, bottom-up approach

- key characteristics of each WP topic :
  - *Specific challenge* (definition of problem)
  - *Scope* (specification of range of activities)
  - *Expected impact* (key results)
  - *Type of action*

Areas of the call „Greening the Economy“ 2016/17

1. Climate services
2. Towards a low-carbon Europe
3. Nature-based solutions for territorial resilience
4. Water
5. Raw materials
6. Earth Observation
7. Cultural heritage for sustainable growth
8. Support to policy and preparing for innovation procurement

1. Climate services 2016

Identifier	Topic	Action
SC5-01-2016	Demonstration of climate services	RIA
SC5-03-2016	Climate services market research	RIA
SC5-05-2016	A 1.5 million year look into the past for improving climate predictions	CSA

2. Towards a low-carbon Europe 2016

Identifier	Topic	Action
SC5-06-2016-2017	SC5-06-2016-2017: Pathways towards the decarbonisation and resilience of the European economy in the timeframe 2030-2050 and beyond	RIA

3. Nature-based solutions for territorial resilience 2016

Identifier	Topic	Action
SC5-09-2016	SC5-09-2016: Operationalising insurance value of ecosystems	RIA
SC5-10-2016	SC5-10-2016: Multi-stakeholder dialogue platform to promote innovation with nature to address societal challenges	CSA

4. Water 2016

Identifier	Topic	Action
SC5-11-2016	SC5-11-2016: Supporting international cooperation activities on water	CSA
SC5-12-2016	SC5-12-2016: Food systems and water resources for the development of inclusive, sustainable and healthy Euro-Mediterranean societies	CSA

5. Raw materials 2016

Identifier	Topic	Action
SC5-13-2016-2017	SC5-13-2016-2017: New solutions for sustainable production of raw materials	RIA
SC5-14-2016-2017	SC5-14-2016-2017: Raw materials Innovation actions	IA
SC5-15-2016-2017	SC5-15-2016-2017: Raw materials policy support actions	CSA
SC5-16-2016-2017	SC5-16-2016-2017: Raw materials international co-operation	CSA
SC5-17-2016	SC5-17-2016: ERA-NET Cofund on Raw material	ERA-NET Cofund

6. Earth Observation 2016

Identifier	Topic	Action
SC5-20-2016	SC5-20-2016: European data hub of the GEOSS information system	RIA

7. Cultural heritage for sustainable growth 2016

Identifier	Topic	Action
SSC5-21-2016-2017	SC5-21-2016-2017: Cultural heritage as a driver for sustainable growth	IA

8. Support to policy and preparing for innovation procurement 2016

Identifier	Topic	Action
SC5-25-2016	SC5-25-2016: Macro-economic and societal benefits from creating new markets in a circular economy	CSA
SC5-27-2016	SC5-27-2016: Preparing for pre-commercial procurement (PCP) and/or public procurement of innovative solutions (PPI) in support of climate action, environment, resource efficiency and raw materials	CSA
SC5-28-2016	SC5-28-2016: Transformations to sustainability	ERA-NET Cofund

Cross-challenge issues/policy support

- **Coordinating and supporting research and innovation in the area of climate action, environment, resource efficiency and raw materials**
- **Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials**
- **New instruments from 2016 (PCP, Prizes)**

Deadlines

- ! Call opening: 20.10.2015

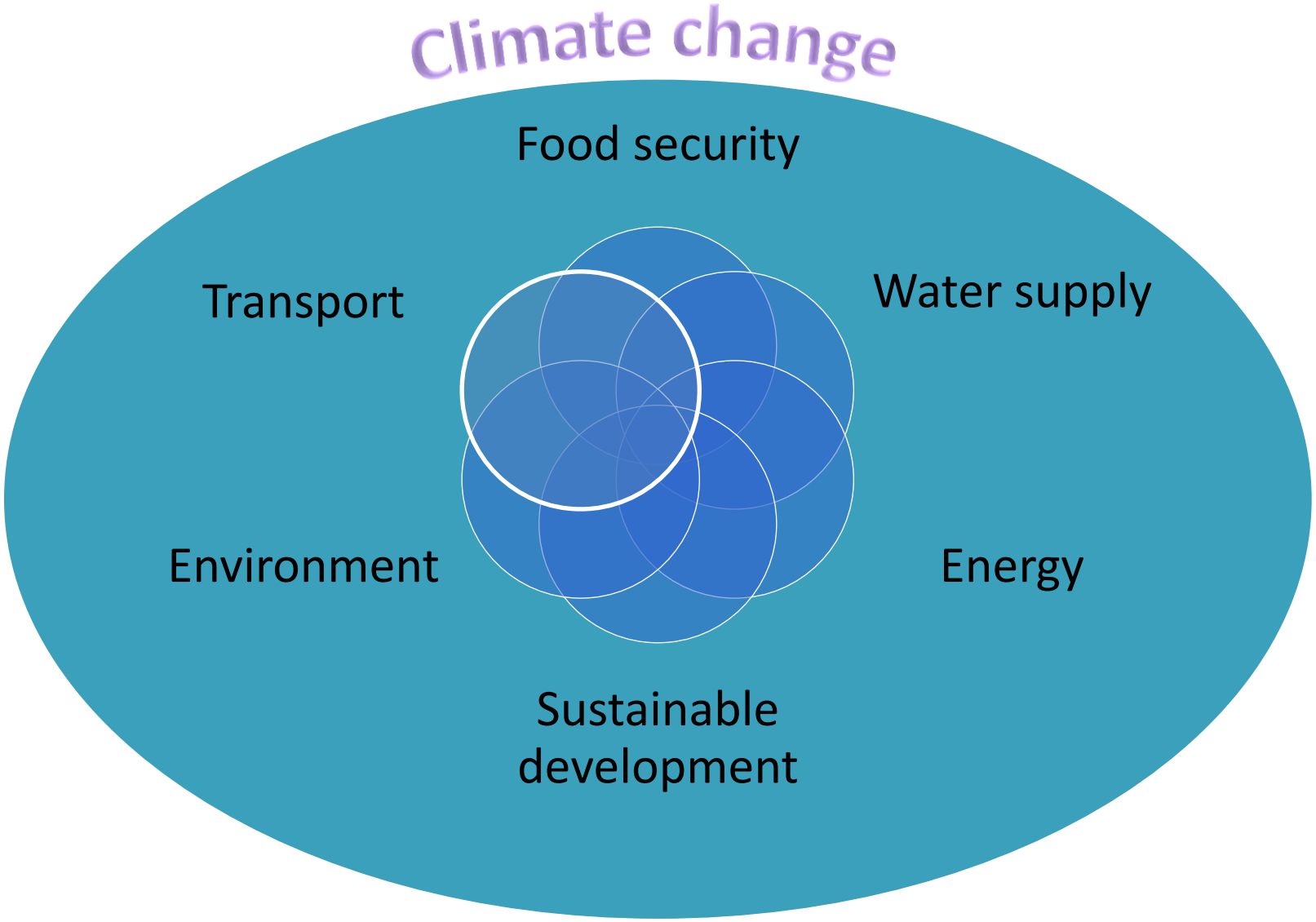
- ! Deadline for 2016: 8.3.2016 (1st stage); 6.9.2016 (2nd stage)

NB! Separate deadlines for SME instrument

Expected budget:

2016 calls: ~142.85 million €

2017 calls: ~183.10 million €


Climate change
Food security
Transport
Water supply
Environment
Energy
Sustainable development

Cross-cutting Activities relevant to SC5

- **Industry 2020 in the Circular Economy**
  - **Circular economy**
    - Systemic, eco-innovative approaches: large-scale demonstration projects
    - Water
    - Urban organic waste
    - Smart specialisation; economic incentives

-- opening: 10.11.2015, deadline: 8.3.2016 (1st stage), 6.9.2016 (2nd stage)

Cross-cutting Activities relevant to SC5 – cont.

–Smart and Sustainable Cities

- **Sustainable cities through nature-based solutions**
  - Lighthouse projects

- opening: 8.12.2015, deadline: 5.4.2016 (for 2016 topic), 14.2.2017 (for 2017 topic)

  - Nature-based solutions
  - New governance

- opening: 10.11.2015, deadline: 8.3.2016 (1st stage), 6.9.2016 (2nd stage)

Environment related topics in other work programmes

Challenge 2: **Adaptation to climate change in agriculture, forestry and maritime**

Challenge 3: **low-carbon energy**

Challenge 4: **carbon-free transport**

Challenge 7: **extreme weather conditions**

Statistics

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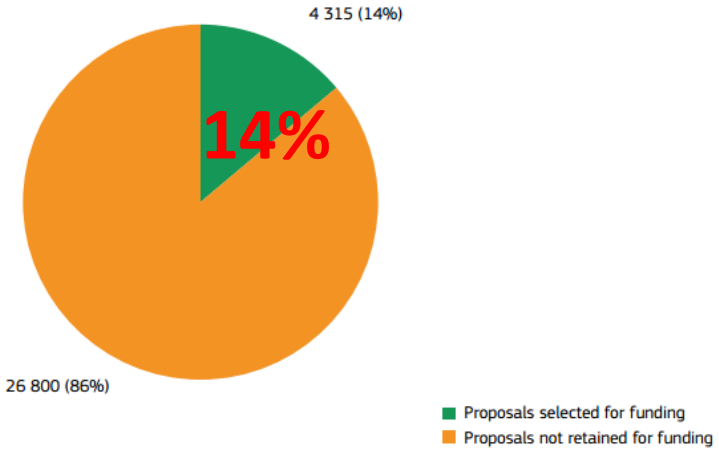
SUCCESS RATES

What percentage of proposals received funding?

Success rate of eligible full proposals to Horizon 2020

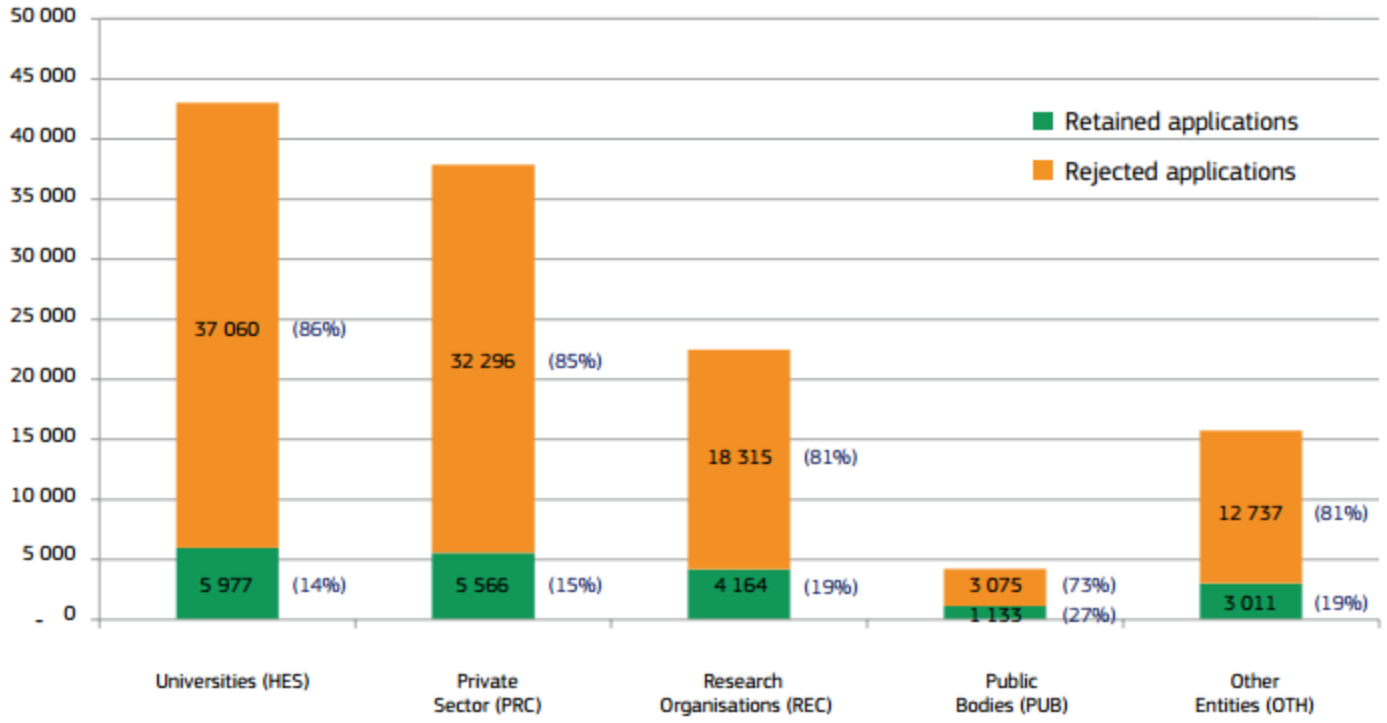


This chart concerns the 31 115 full proposals that were received, comprising 29 794 full proposals in single-stage calls and 1 321 full proposals in the second stage of the two-stage calls. Around 14% of full proposals were selected for funding, a success rate which reflects the very high number of eligible proposals made to the first 100 calls. The success rate of eligible proposals over the full seven-year duration of the Seventh Framework Programme for Research (FP7) was around 20%.

Source: https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/horizon_2020_first_results_1.pdf

Which types of organisations applied to Horizon 2020?

Number of applications to Horizon 2020 per type of organisation



Universities are in first place in terms of the overall number of eligible applications, followed by the private sector and research organisations. Please refer to the section in the Glossary on *Evaluation procedure* for more information on how proposals are selected, and to *Definitions of types of organisations* for more information on the above classification.

Source: https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/horizon_2020_first_results_1.pdf

H2020 funded calls under environment topic (2014-2015)

At the moment:

- 141 grant agreements signed

- Total EC contribution: ~303 million €

  AVG per Project: 2 million €

Source: European Union Open Data Portal https://open-data.europa.eu/en/data

H2020 funded calls under environment topic (2014-2015)

- Main coordinators:

Spain (ES) – 30 projects

United Kingdom (UK) – 20 projects

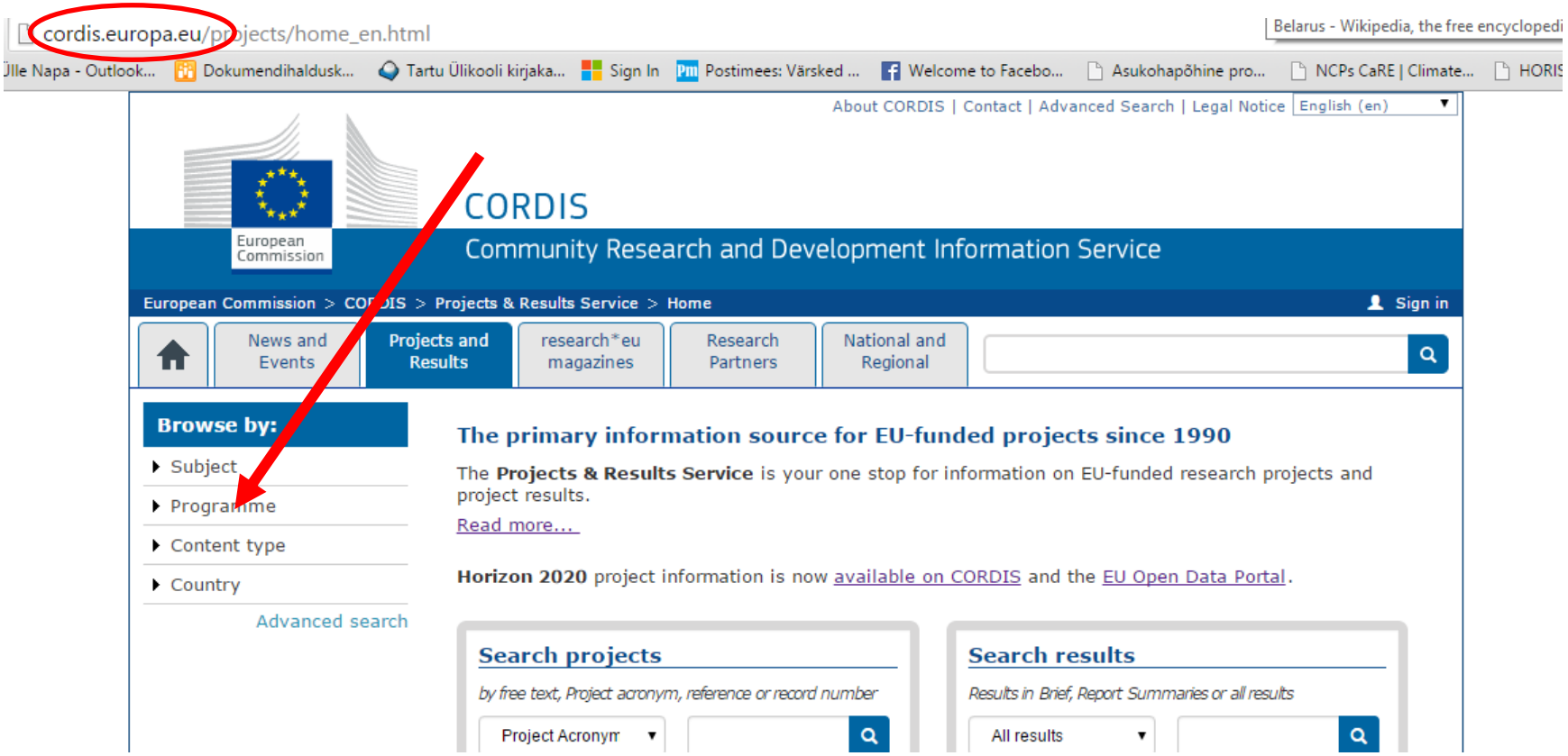
Germany (DE) – 17 projects

Italy (IT) – 17 projects

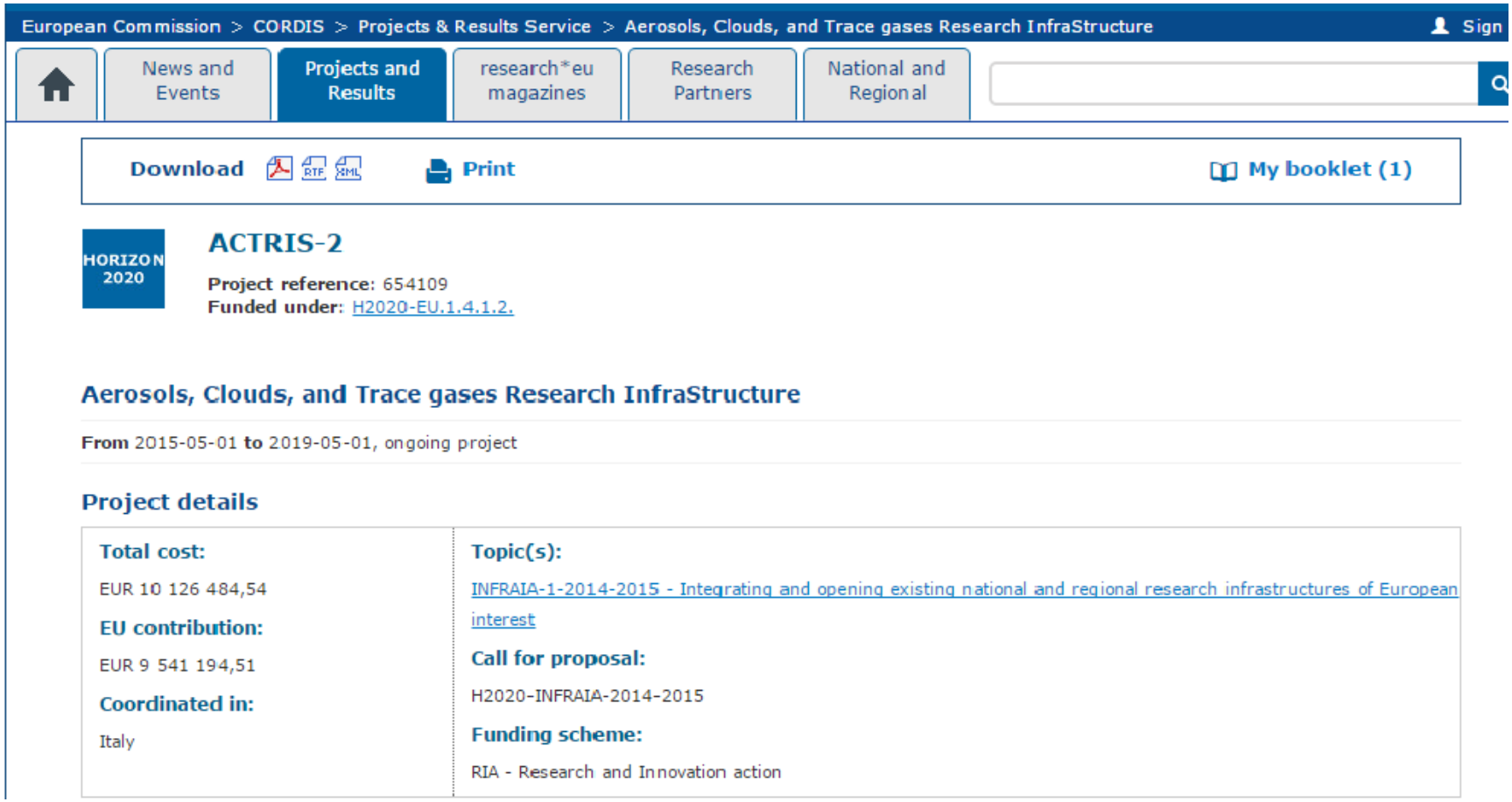
The Netherlands (NL) - 10 projects

Source: European Union Open Data Portal https://open-data.europa.eu/en/data

Funded environmental projects: in CORDIS



Example:

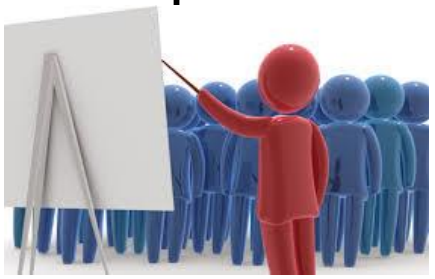


Patrner in the Project:

B.I. Stepanov Institute of Physics of the National Academy of Sciences of Belarus

Lessons from first Horizon 2020 Calls – recommendations (1):

- Complicated and unclear description of a project idea – use good English and avoid complicated/long sentences
- The scope is too broad– less and concrete description is better
- Expected impact is not clearly written
- Insufficient evaluation of risks
- Finances – salaries not coherent with the average in the country
- The goals of the proposal are too ambitious for the time period



Lessons from first Horizon 2020 Calls – recommendations (2):

- Previous achievements /projects not sufficiently described
- Consortia unbalanced – each partner needs to have a task
- Gender balance and regional balance
- Required partners (e.g. SME) are missing
- Weak dissemination plan
- SSH is not integrated to the proposal

Horizon 2020 environment (SC5)

Work programme available at:

- https://ec.europa.eu/programmes/horizon2020/en/draft-work-programmes-2016-17 (Draft 2016-17)

Horizon 2020 European Commission web page

- http://ec.europa.eu/programmes/horizon2020/h2020-sections

Information sources

- **CORDIS**
- http://cordis.europa.eu/fp7
  - Funded projects, partner searches, list of NCPs
- **Participant Portal**
- http://ec.europa.eu/research/participants/portal/
  - Entry point for electronic administration of proposals and projects
- **Environmental Research and Innovation at EC pages**
- http://ec.europa.eu/research/environment/index_en.cfm
  - Research areas, events, news, funding opportunities
- **NCPs CaRE**
- http://www.ncps-care.eu
  - Events, FAQs
- **H2020 in Estonia**
- http://www.horisont2020.ee

Partner Search Tool for environment topics

- Will be developed by NCPs CaRE Project

- Partner search tool by Germany:
- https://www.nks-umwelt.de/request-offer-list-en

NCPs CaRE project

This project is funded by the European Union

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"NCPs CaRE"

National Contact Points for
Climate action, Raw materials, Environment and Resource Efficiency

Project of the National Contact Points in H2020 Societal Challenge 5

www.ncps-care.eu