Seminar Introduction – FLAG-ERA Presentation

FLAG-ERA JTC 2017 Project Kick-off Seminar
March 21-22, 2018

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Supported by the European Commission

Outline of the presentation

- Objectives of the seminar
- Participants
- FLAG-ERA context and objectives
- JTC 2017 outcome
  - Overview, design and timeline
  - Statistics
    - Per topic / area (numbers of projects)
    - Per country (amounts of funding)
- Perspectives

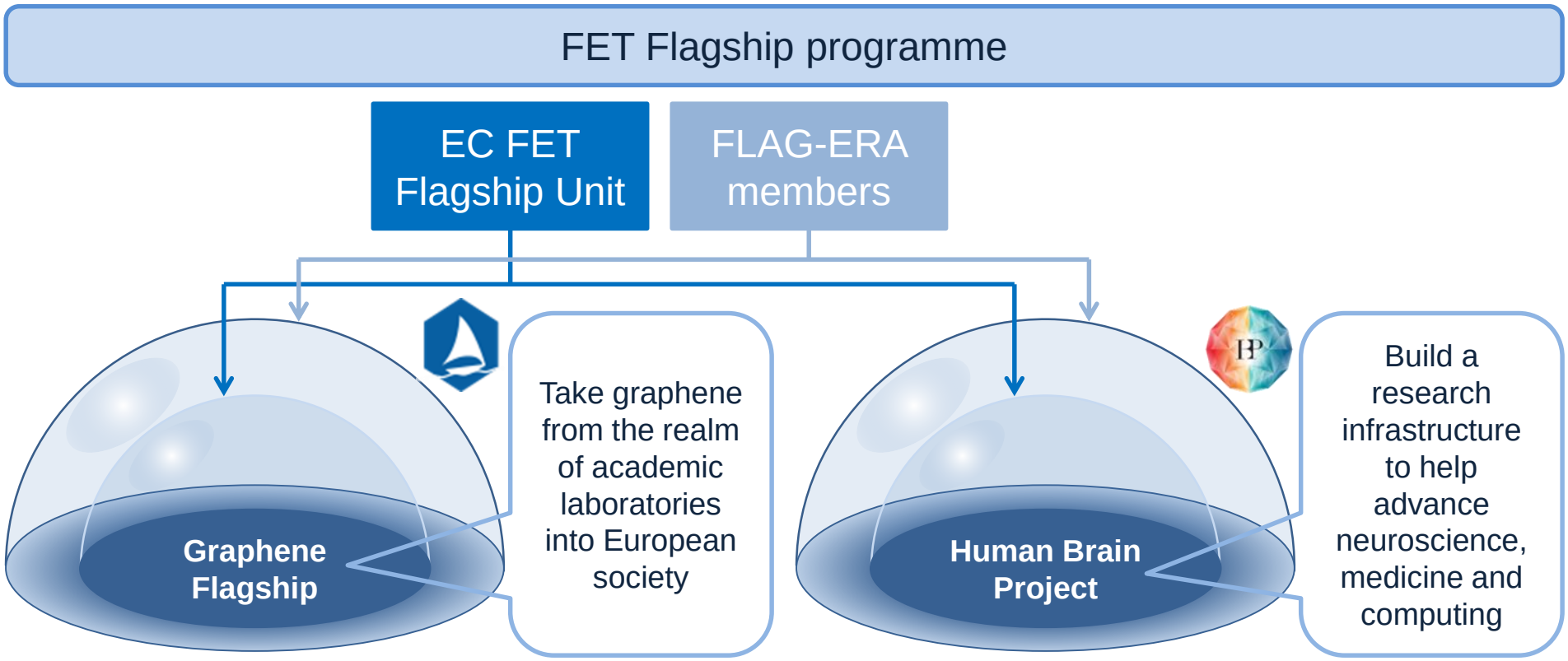
Objectives of the seminar

- Gather all stakeholders to kick-off the JTC 2017 projects
  - Introduce the various stakeholders to one another
    - Partnering Project (PP) representatives
    - Flagship Core Project (CP) management representatives
    - SCOPE project representatives
    - National and Regional Funding Organisation (NRFO) representatives
    - European Commission (EC) representative
  - Get to know each other, network among all stakeholders
  - Get a common understanding of the context and objectives of the Flagships
  - Understand the needs of all parties
  - Update each other and discuss issues if any
  - Plan the next steps

Participants

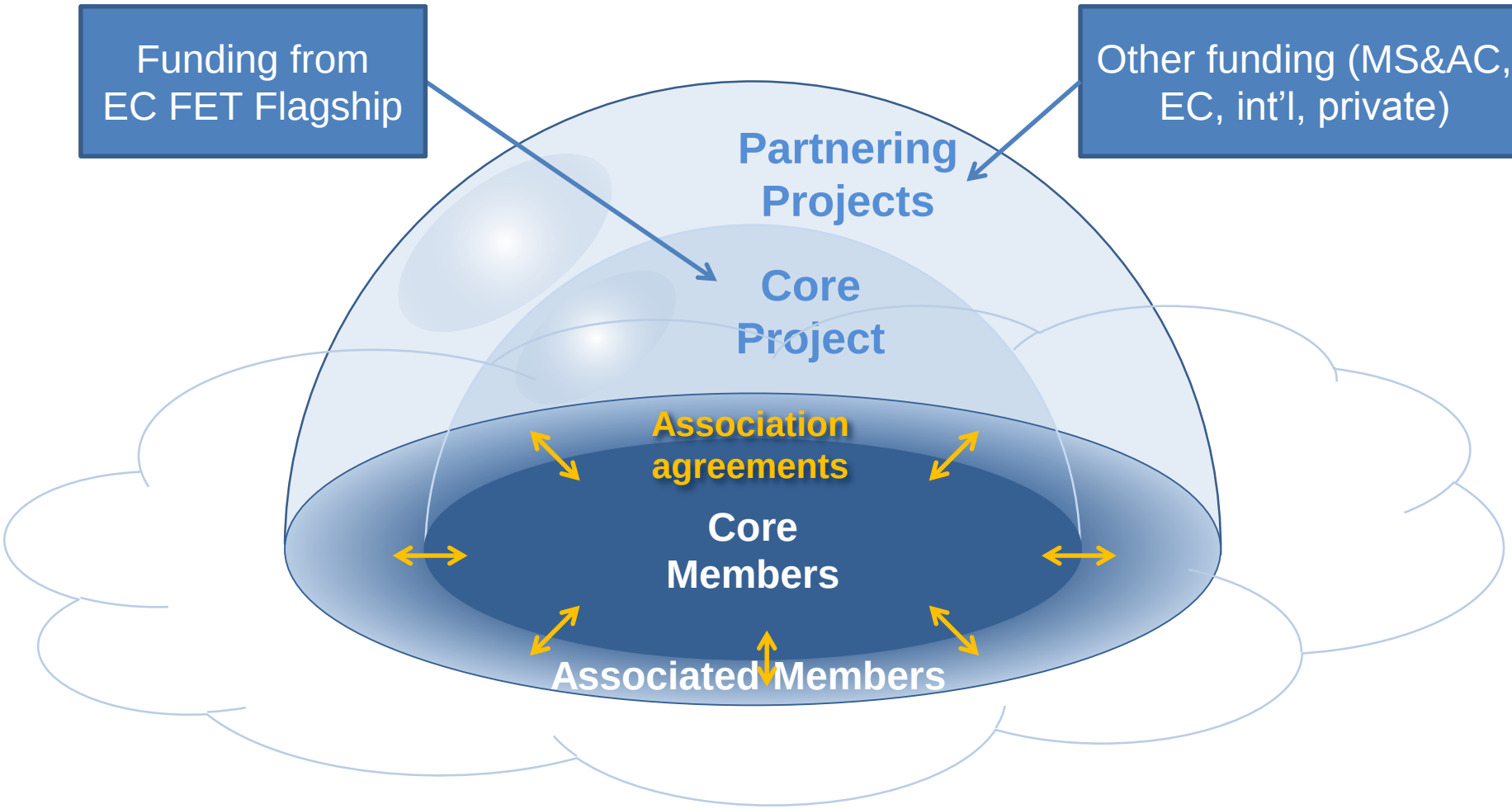
Type	GRA	HBP
Partnering Project representatives	30	12
Core Project representatives	7	1
SCOPE	1	1
National and Regional Funding organisations	18	14
European Commission	1	-
Total	57	28

FLAG-ERA context and main objectives



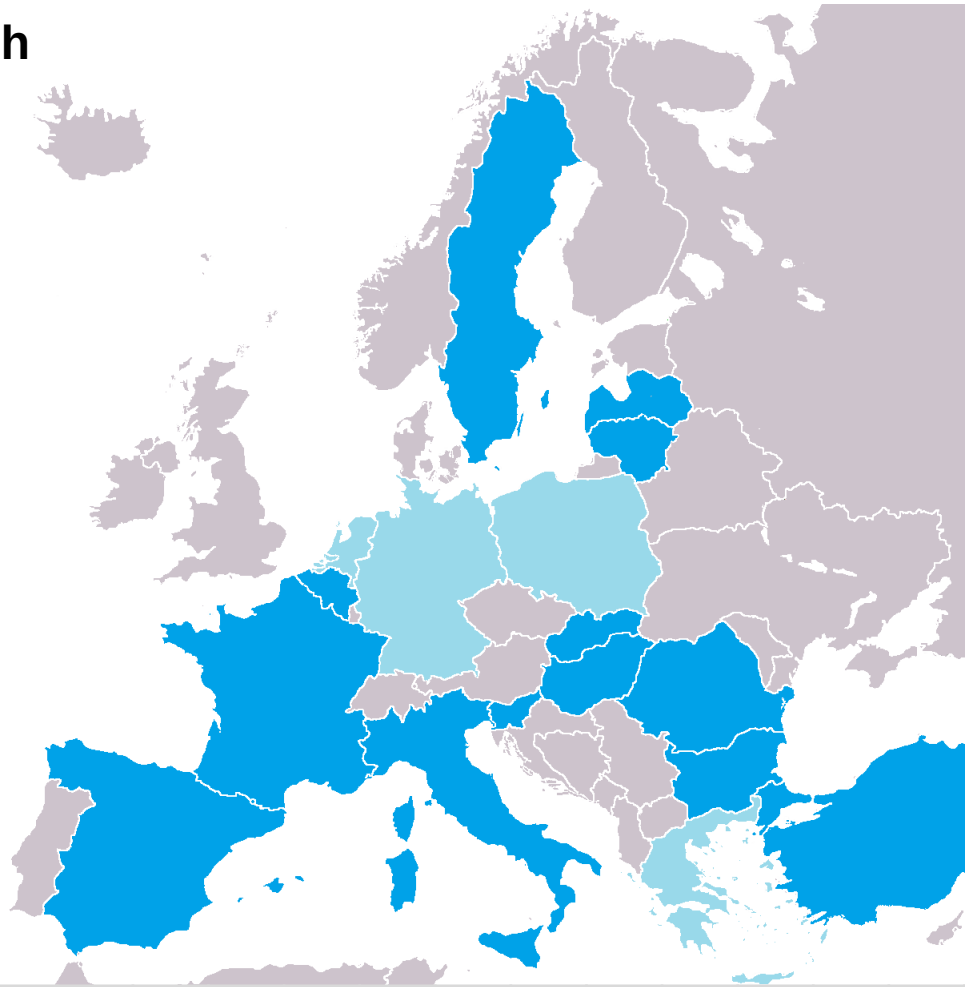
- FLAG-ERA main objectives: Support the Flagship programme and in particular the first two Flagships through
  - Dedicated Joint Transnational Calls (JTC 2015, JTC 2017, JTC 2019)
  - Support to partnering projects and to their integration into the Flagship

Combining multiple sources of funding



JTC 2017 Overview

- **Joint Transnational Call for research proposals in synergy with the two FET Flagships**
  - **Graphene Flagship**
  - **Human Brain Project**
- 17 participating countries
- Funding both Core Project members and new partners, to be associated to the Flagships
- Researchers from other countries can participate in a project if they secure their own funding
- Indicative budget: 16 M€
- Pre-proposal submission deadline: March 14th, 2017



	BE	BG	DE	ES	FR	GR	HU	IT	LT	LV	NL	PL	RO	SE	SI	SK	TR
	BE	BG		ES	FR		HU	IT	LT	LV			RO	SE	SI	SK	TR

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JTC 2017 design

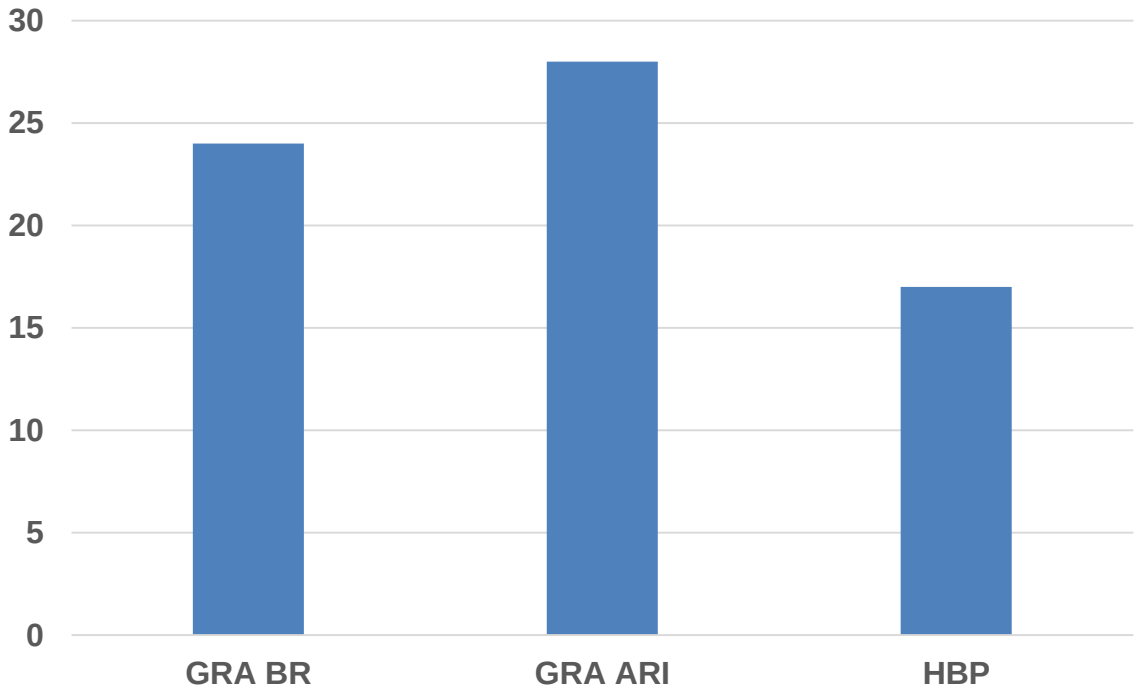
- Call scope provided by the Flagships
  - Draft Partnering Project application included in the application
  - Level of potential synergies with the Flagship is a criterion in step 1
  - Scientific Evaluation Panel independent of the Flagship
  - Selected projects are invited to proceed with the association using the standard Flagship association procedures
- Possibility to request funding in only 2 countries if a Flagship Core Member from another country participates in kind
- 3 sub-calls
  - Graphene: Basic research & Applied research and innovation
  - HBP: Basic and applied research
- 2-step evaluation (co-funded call)

Timeline

March 14	Pre-proposal submission deadline
June 2	Feedback to applicants step 1
July 11	Full proposal submission deadline
Oct 20	Feedback to applicants step 2 & Publication of list of projects recommended for funding
Nov-March	Negotiations, contracting
Dec-March	Project start
March 21-22	**Project kick-off seminar**

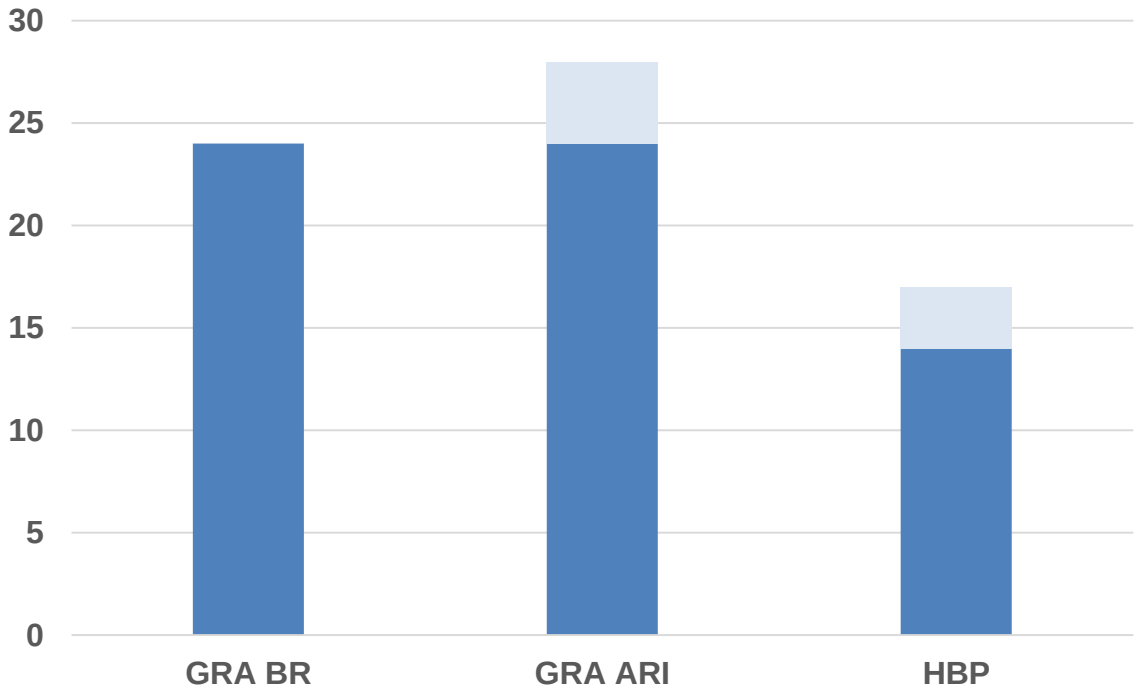
Number of pre-proposals submitted

GRA – Basic research (BR)	24
GRA – Applied research and Innovation (ARI)	28
HBP – Basic and applied research	17
Total	69



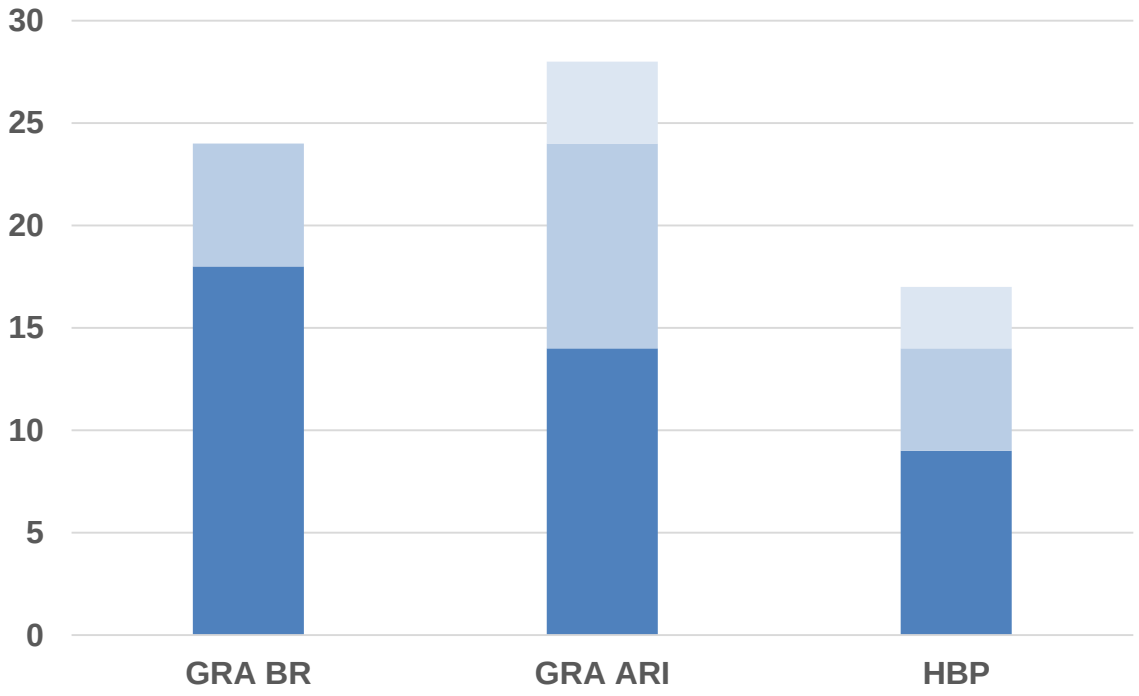
Number of pre-proposals eligible

GRA – Basic research (BR)	24	24
GRA – Applied research and Innovation (ARI)	28	24
HBP – Basic and applied research	17	14
Total	69	62



Number of pre-proposals selected

GRA – Basic research (BR)	24	24	18
GRA – Applied research and Innovation (ARI)	28	24	14
HBP – Basic and applied research	17	14	9
Total	69	62	41



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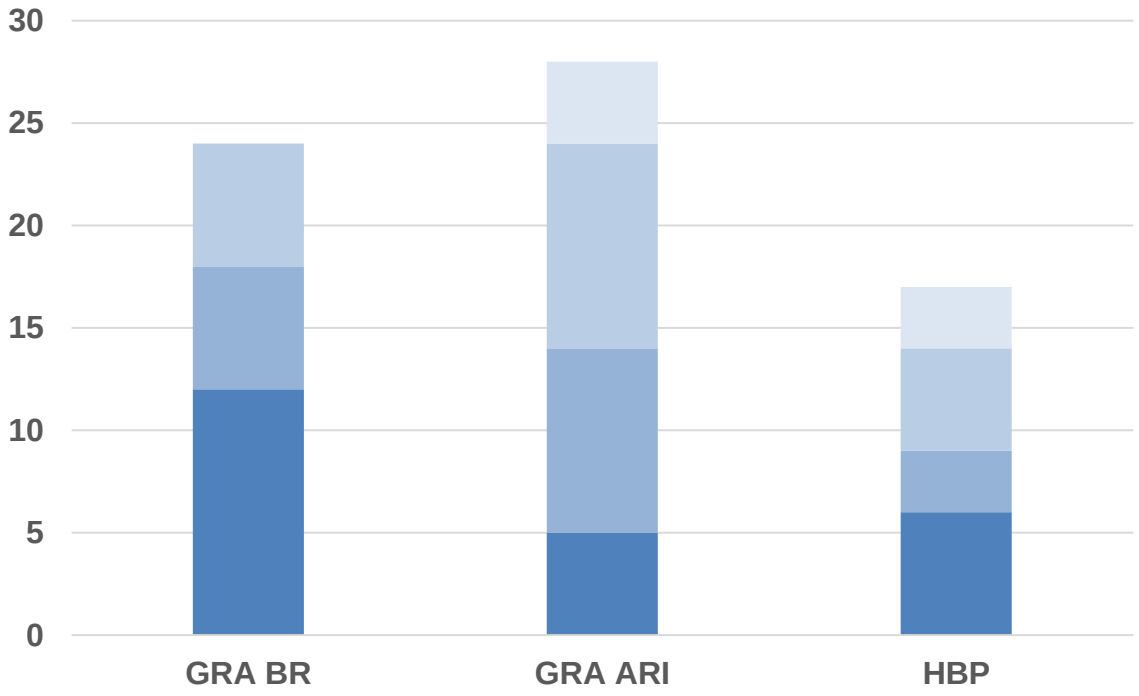
Number of full proposals selected

GRA – Basic research (BR)	24	24	18	12
GRA – Applied research and Innovation (ARI)	28	24	14	5
HBP – Basic and applied research	17	14	9	6
Total	69	62	41	23



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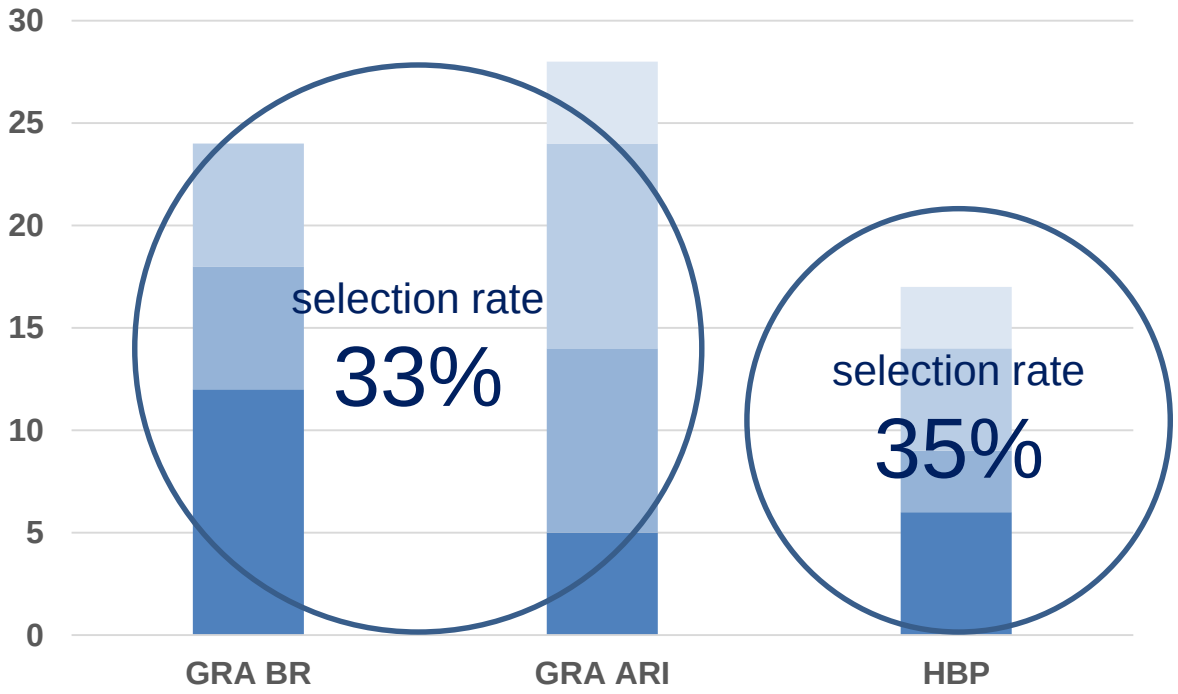

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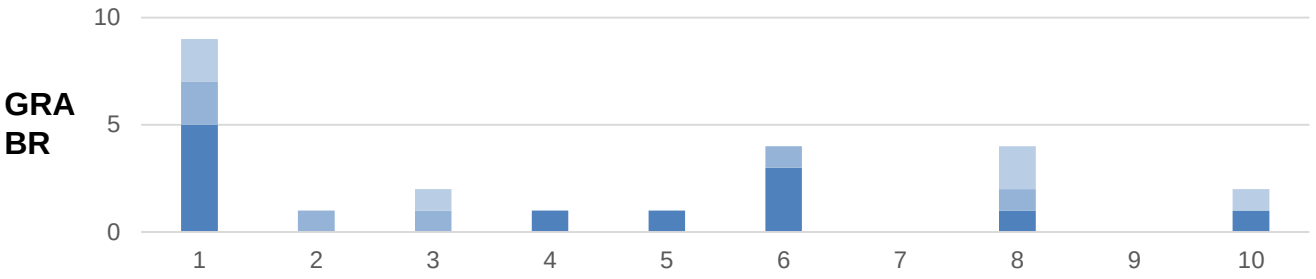
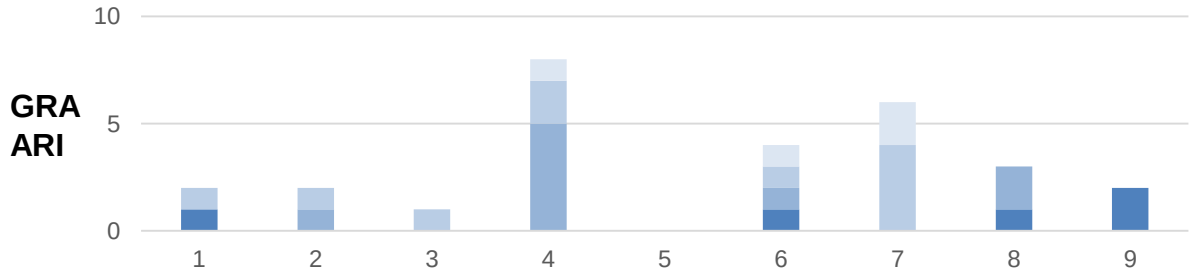
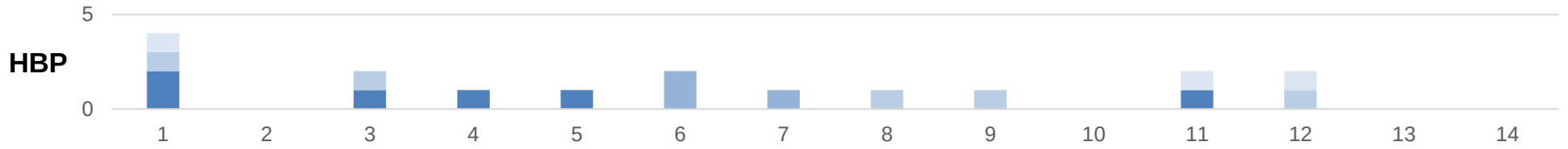
Distribution across research areas







Distributions according to the proposal primary areas

Research Areas – Graphene

Basic Research

1. **Synthesis and characterization of Layered Materials (LMs) beyond graphene**
2. Large scale production of heterostructures based on LMs
3. Vertical and lateral epitaxy of Graphene and Related Materials (GRMs) for optoelectronics
4. **Functional ceramics incorporating GRMs**
5. **Inks for printing stable, GRM-based, semiconducting thin films**
6. **Modelling charge and heat transport in GRM-based composites**
7. Ecotoxicology of GRMs
8. **Nanofluidics using GRMs**
9. Novel device concepts based on GRMs for quantum communication
10. **Beyond CMOS switches and new computing paradigms based on GRMs**

Applied Research and Innovation

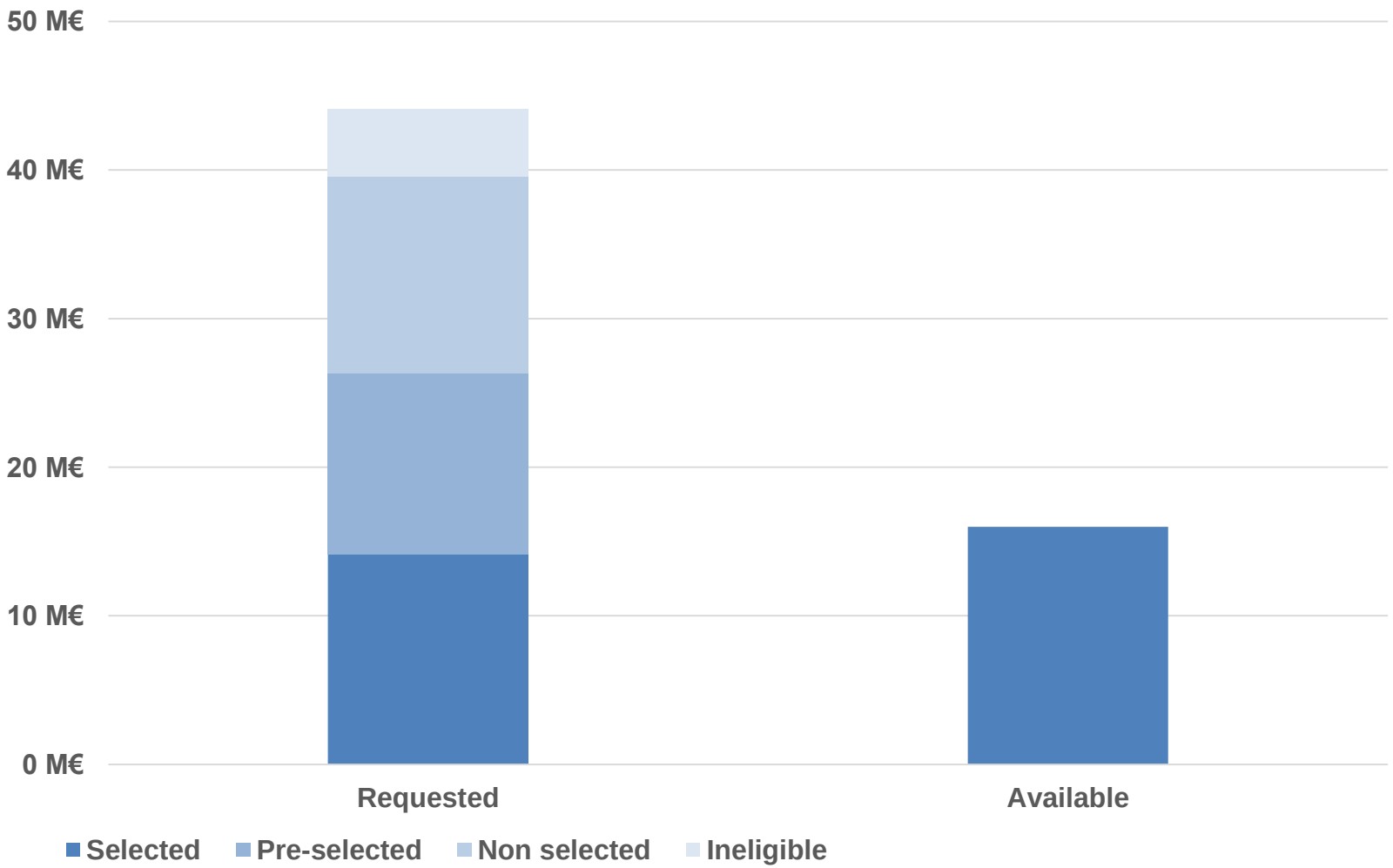
1. **In-situ and ex-situ quality control of GRMs**
2. Controlling doping in high quality large-area graphene
3. GRMs for smart textiles
4. Functional coatings using GRMs
5. GRMs for corrosion prevention and as lubricants
6. **GRMs for thermal management and thermoelectrics**
7. Biorecognition of specific disease markers using GRMs
8. **Highly selective gas sensors based on GRMs**
9. **GRM-based bioelectronic technologies**

Research Areas – HBP

Basic and Applied Research

1. **Human brain intracranial data and their relationship to other aspects of brain organisation**
2. Comparing morphology and physiology of cortical cell types in human and non-human primates
3. **Comparative aspects of brain function and connectivity**
4. **Cross-species multi-scale data constraints for visuo-motor integration**
5. **The neural bases of spatial navigation and episodic memory**
6. Models of auditory processing
7. Dynamics and representation in multi-level systems of human cognitive functions
8. Modelling dendrites within active networks
9. Testing predictive coding and attractor network models
10. Biological deep learning
11. **Disease modelling and simulation**
12. Innovative modelling for allosteric drug discovery
13. Integration of simulation tools, neuromorphic computing and robotics with brain and behavioural studies for developing next-generation brain-computer interfaces
14. Text mining of cellular, synaptic, connectomic or functional properties of the brain

Requested and available funding (overall)



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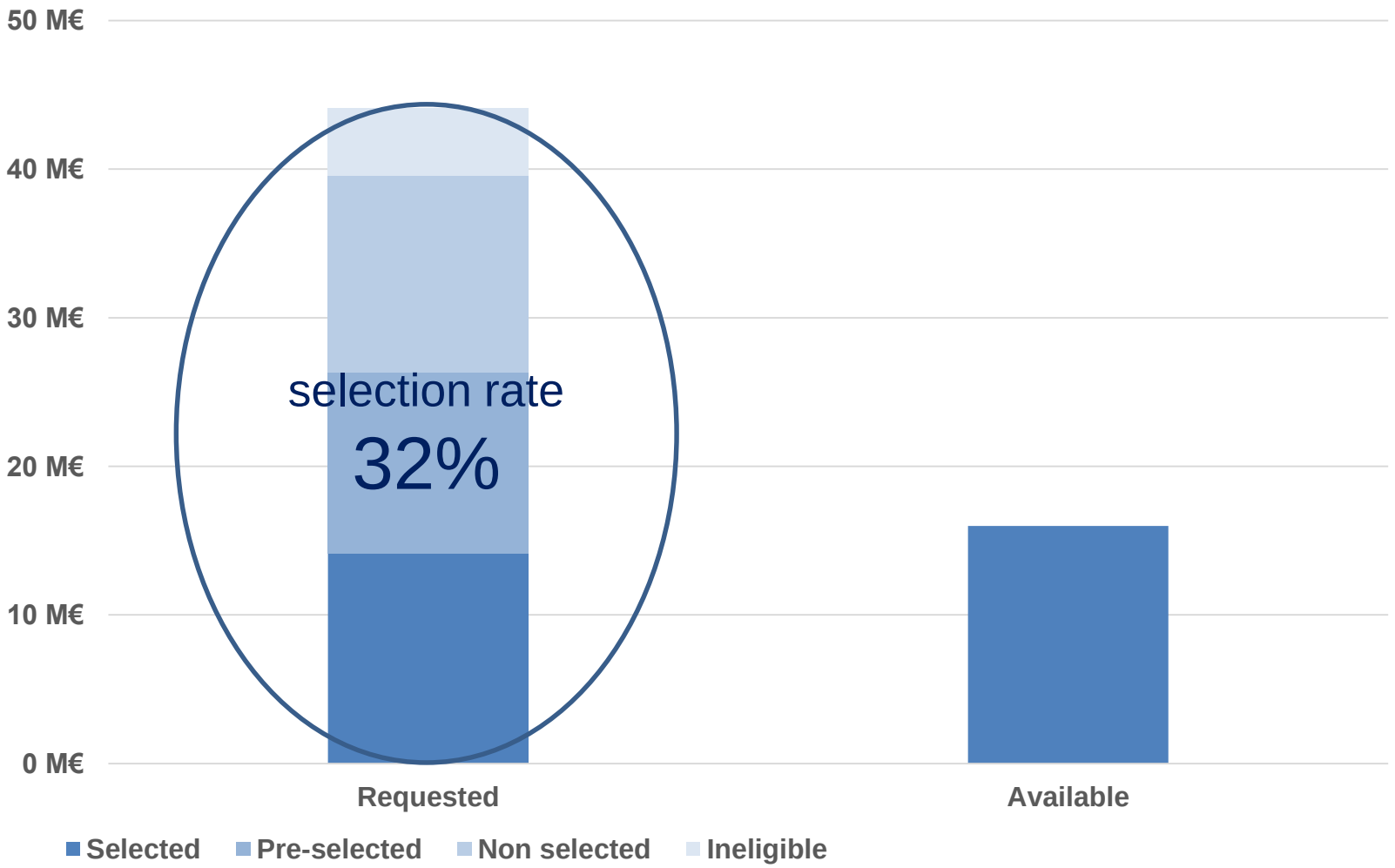
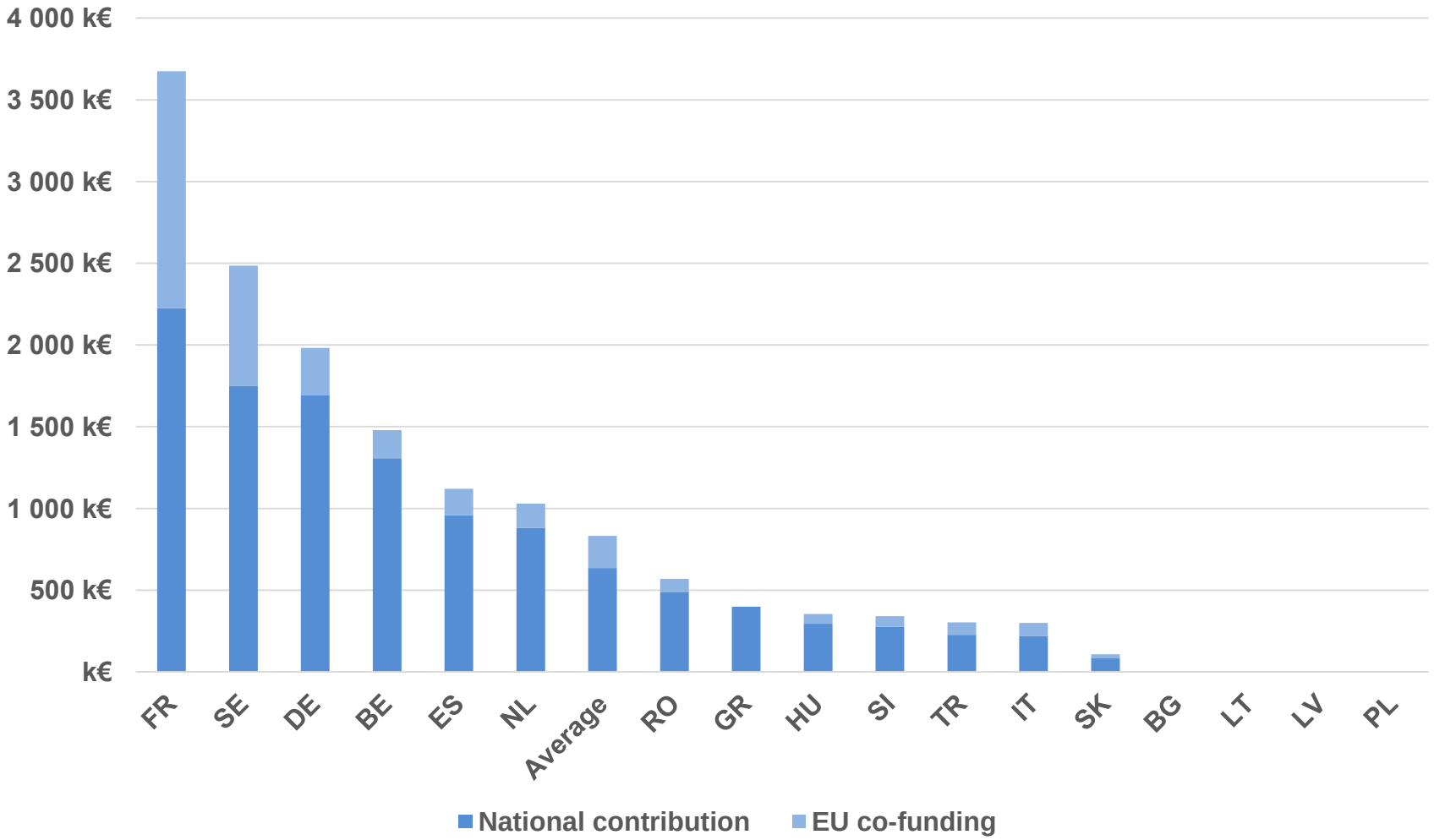


Requested funding per country



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Perspectives

- Network and work together towards the goals of the Flagship
- Finalise the association of the projects and new associated members
- Yearly project reports and reviews
- Meet again at follow-up sessions similar to this one organised in conjunction with the Flagship yearly events

Thank you for your attention

more information on

www.flagera.eu