



FLAG-ERA

Joint Transnational Call (JTC) 2017

for transnational research proposals in
synergy with the two FET Flagships:

Graphene Flagship



Human Brain Project



Statistics on Submissions and Outcome of Evaluation 1st Step

FLAG-ERA JTC 2017 overview

- **Joint call for transnational research proposals in synergy with the two FET Flagships**

- Graphene Flagship
- Human Brain Project

- **Indicative budget: 16 M€**

- **Deadline: March 14th, 2017**

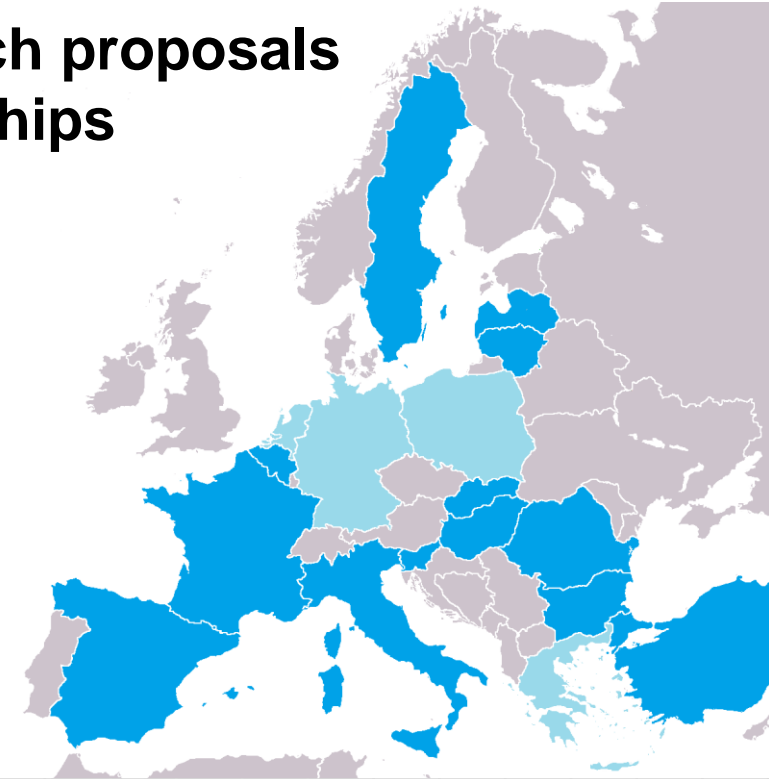
- **Participating countries**

- **Graphene Flagship:**

BE	BG	DE	ES	FR	GR	HU	IT	LT	LV	NL	PL	RO	SE	SI	SK	TR
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- **Human Brain Project:**

BE	BG		ES	FR		HU	IT	LT	LV			RO	SE	SI	SK	TR
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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

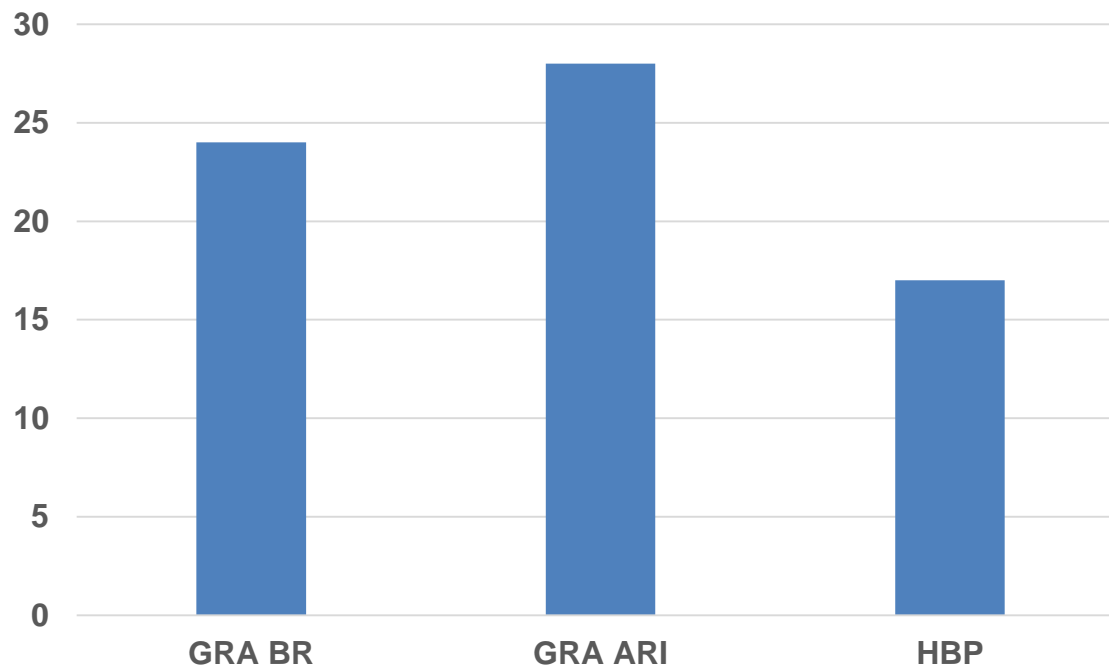
Research Areas – HBP

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

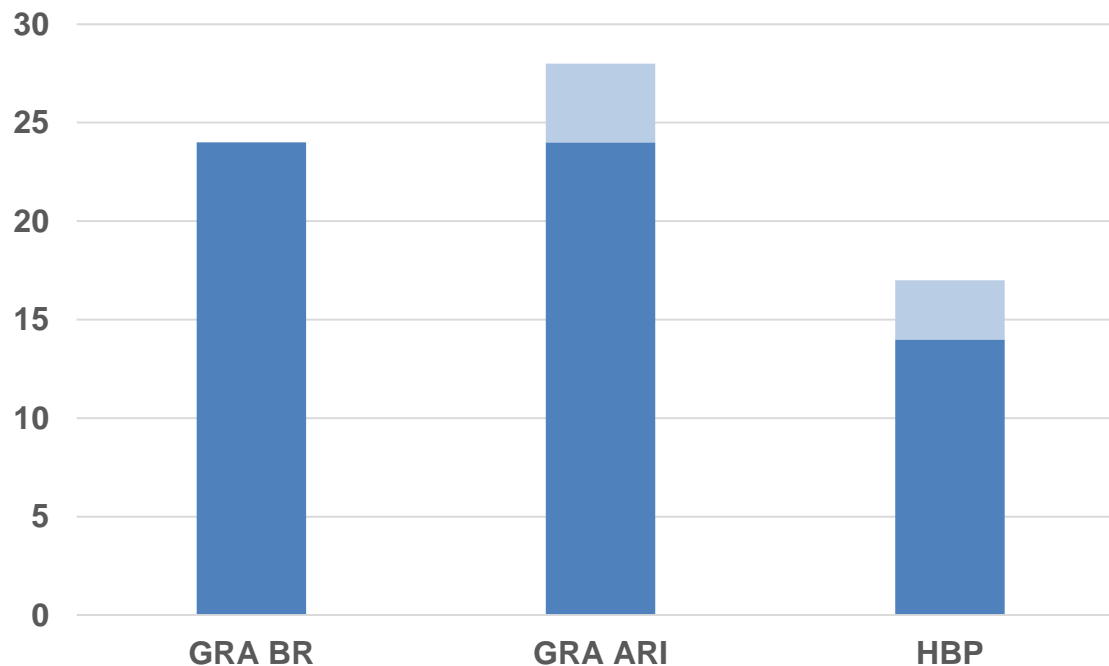
Number of pre-proposals submitted

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



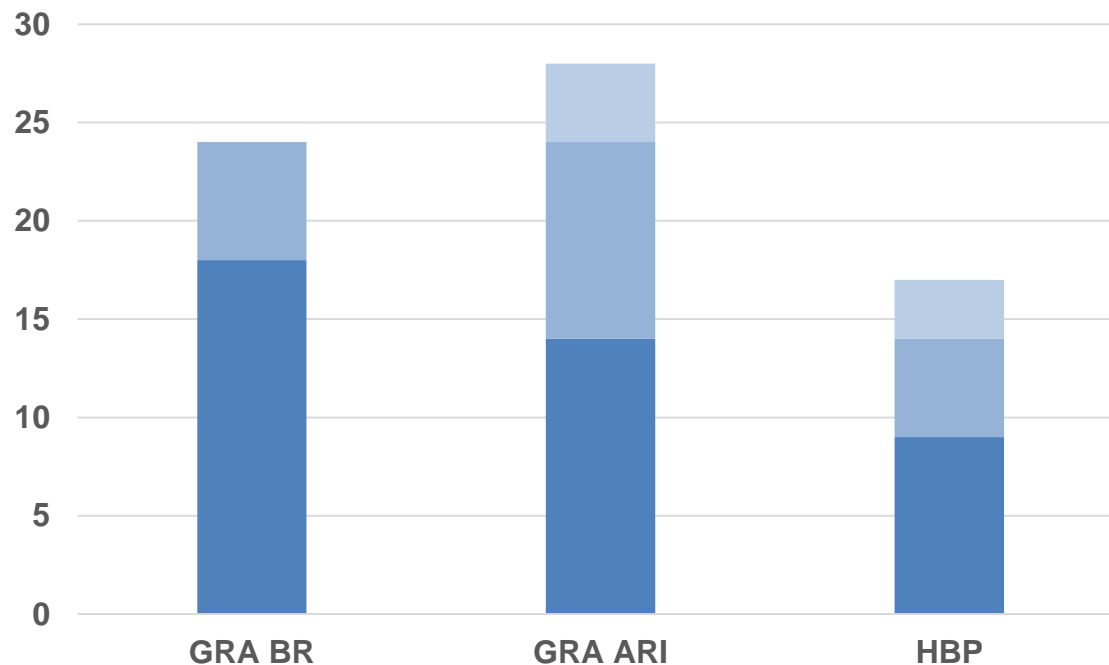
Number of pre-proposals eligible

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

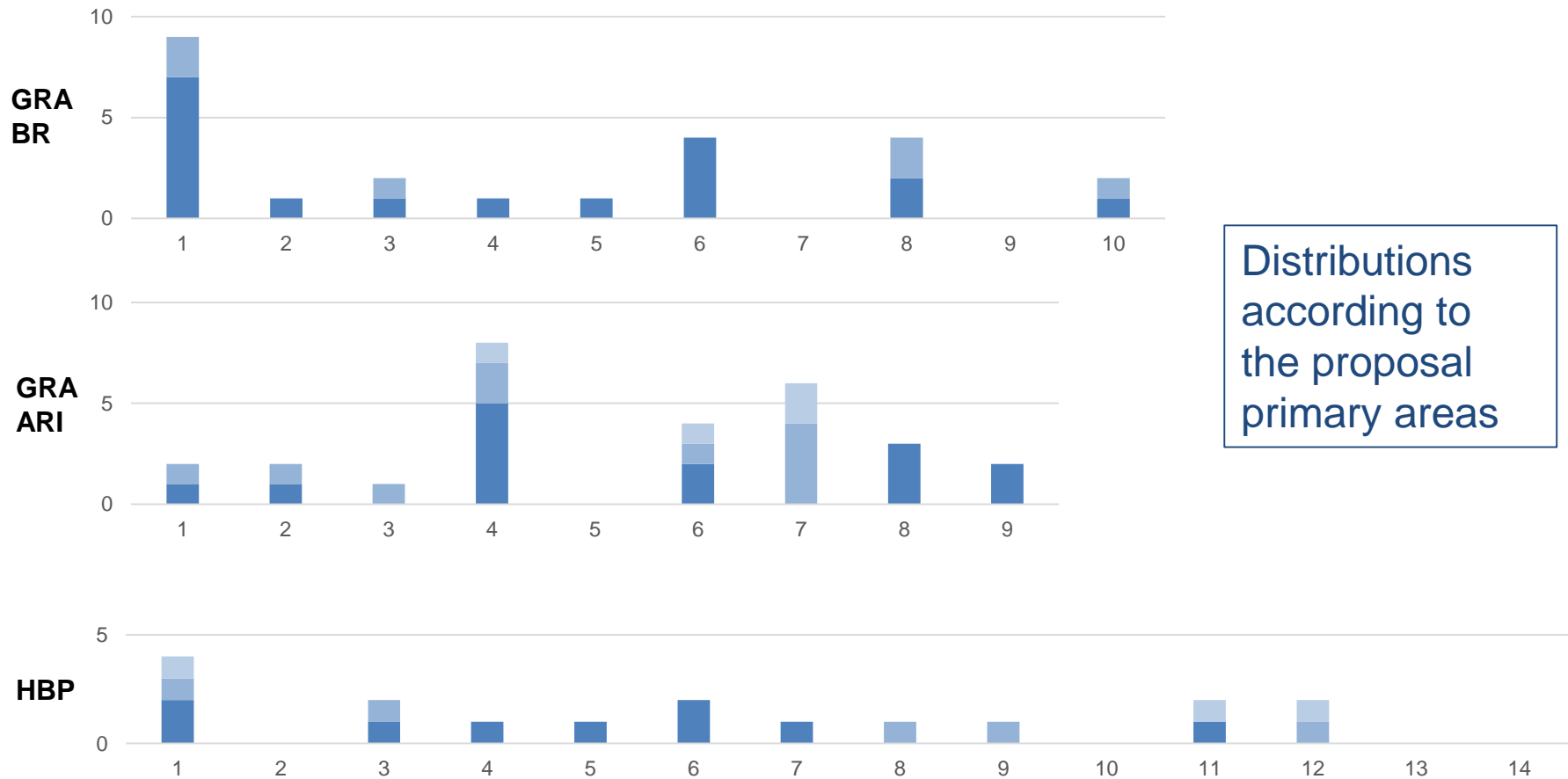


Number of pre-proposals selected

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

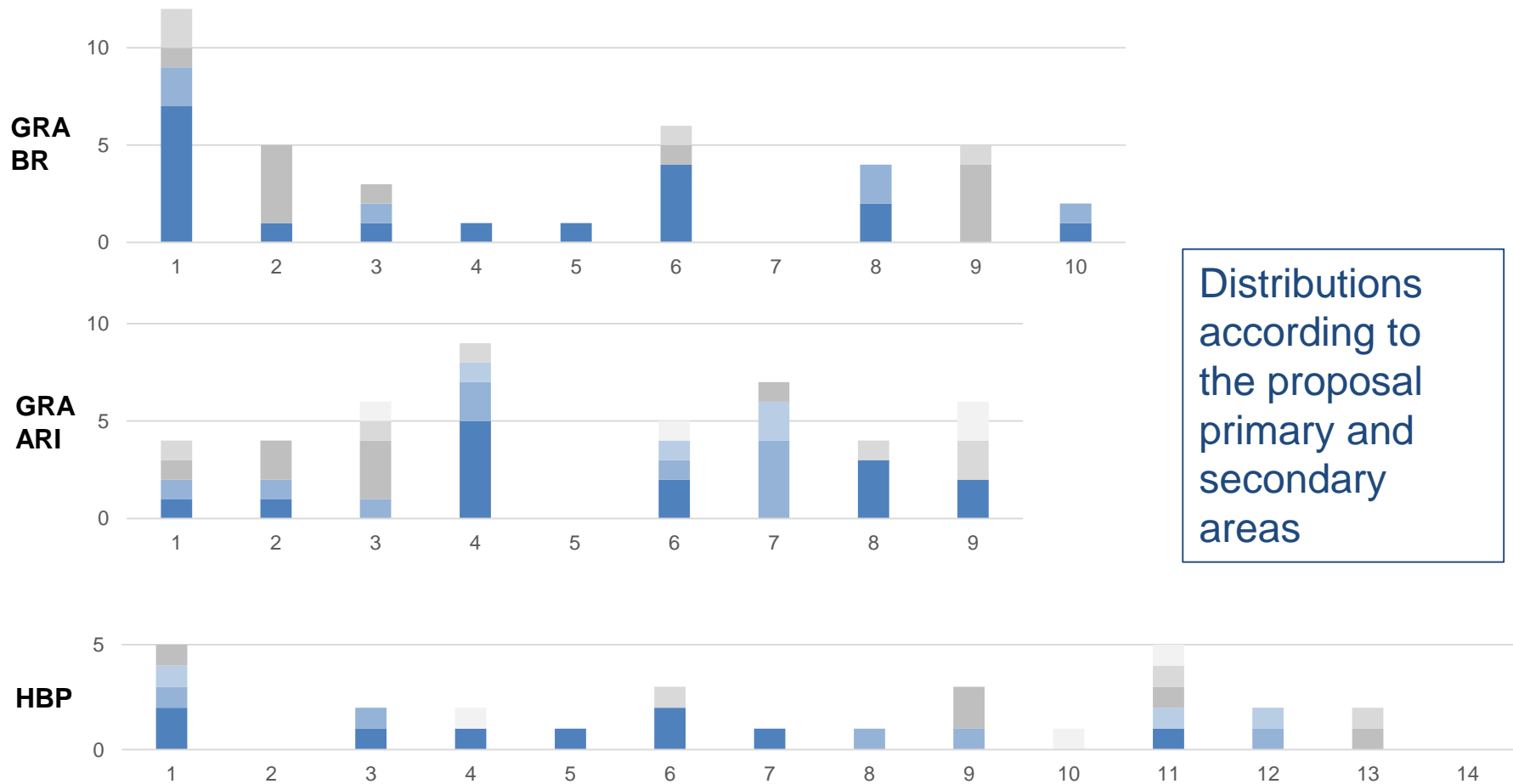


Distribution across research areas



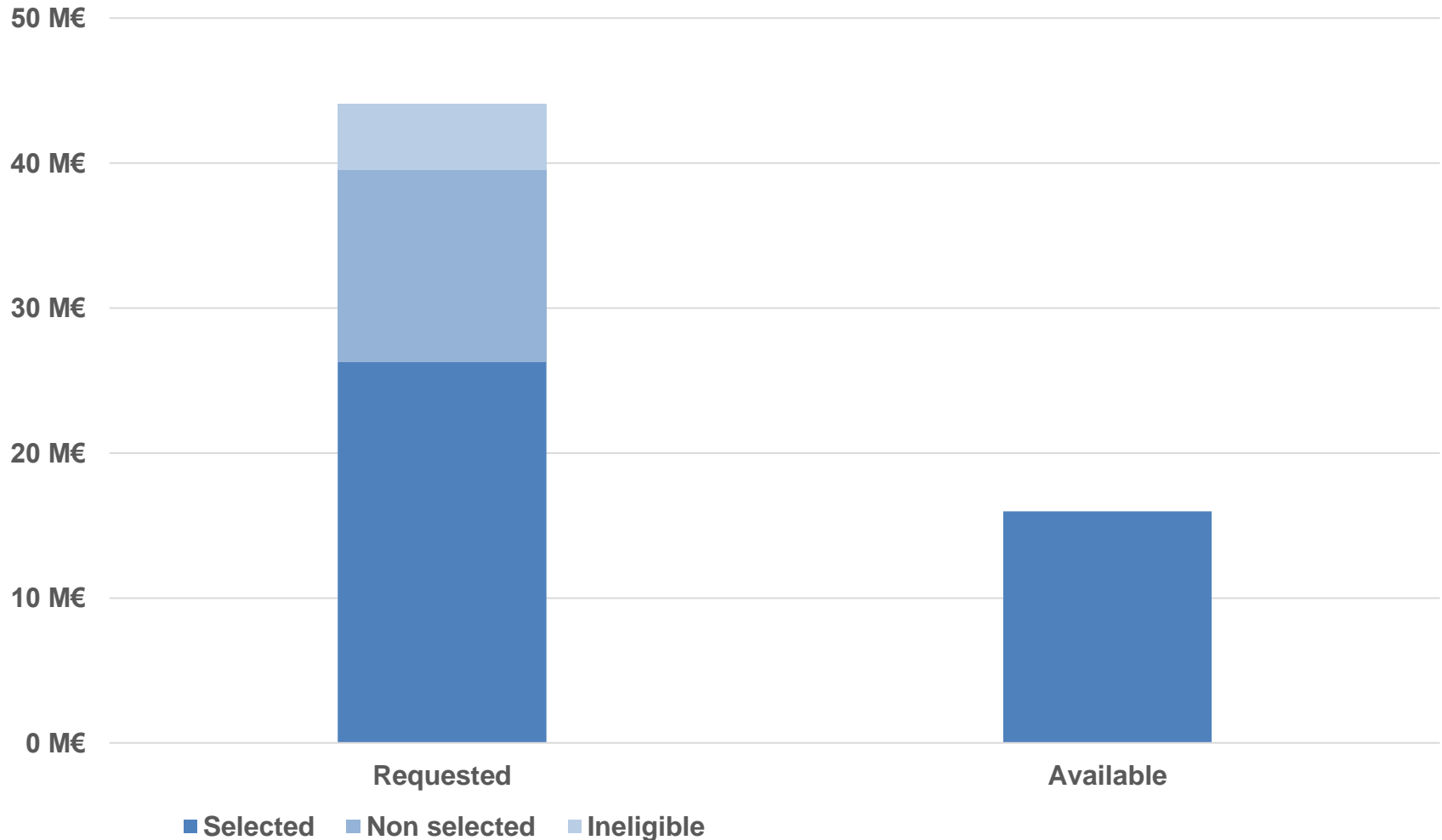
Distributions according to the proposal primary areas

Distribution across research areas



Distributions according to the proposal primary and secondary areas

Requested and available funding (overall)



Next steps

- Full proposal submission deadline: 11 July 2017
- Notification of results: end October 2017
- Project start: Dec 2017 - March 2018