



# Joint Transnational Call (JTC) 2019

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

**Graphene Flagship**  
**Human Brain Project**



# What is FLAG-ERA?

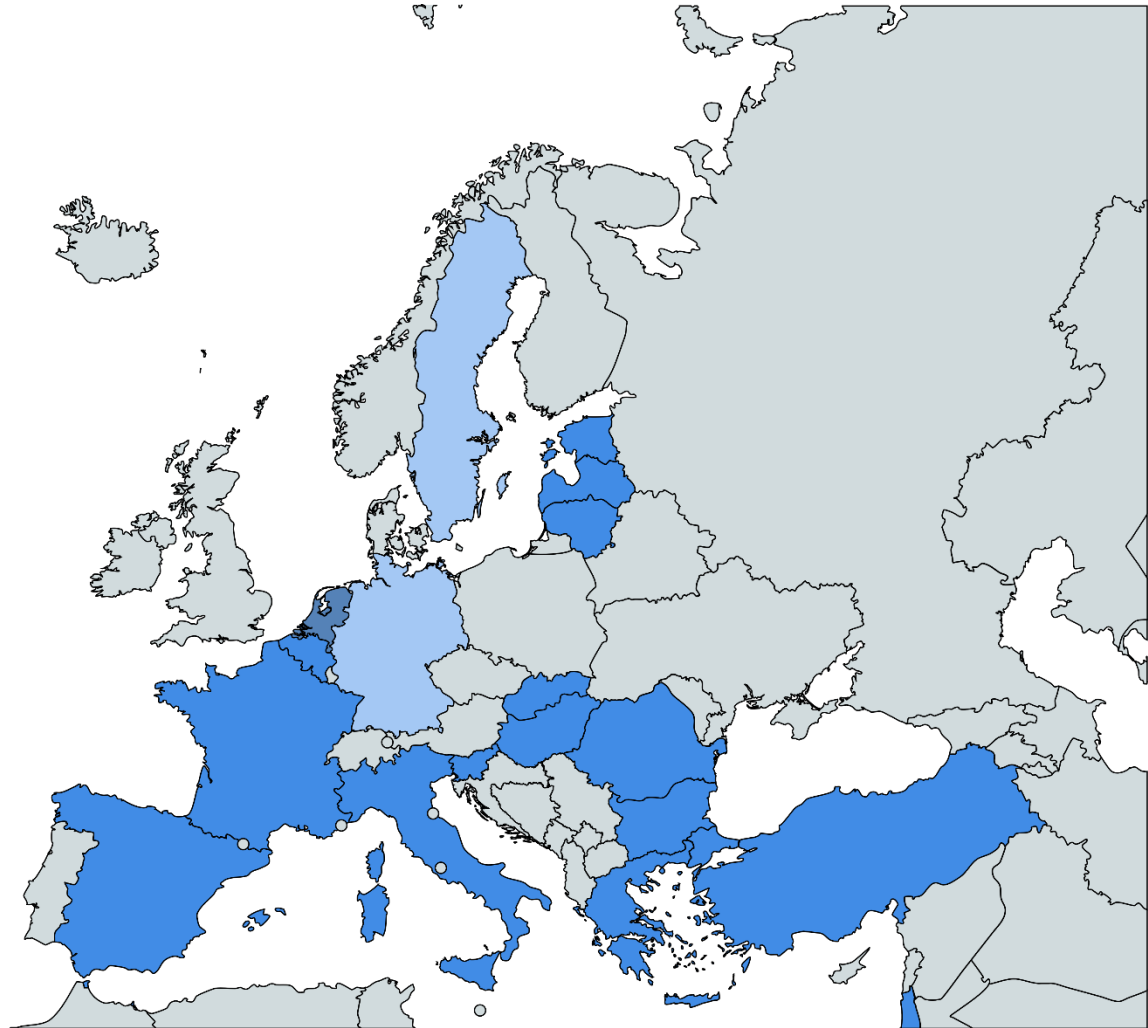
- A network of National and Regional Funding Organisations (NRFOs) in Europe and beyond
- Supporting the FET Flagship initiatives, in collaboration with the European Commission
- Funding research complementing the Flagship Core Projects:
  - Through the use of existing national, regional and transnational calls, which can be combined with the Flagship association mechanisms  
or
  - Through dedicated calls
    - FLAG-ERA JTC 2015
    - FLAG-ERA JTC 2017
    - **FLAG-ERA JTC 2019**

# FLAG-ERA JTC 2019 Overview

- **Joint call for transnational research proposals in synergy with the Graphene Flagship and the Human Brain Project**
  - For the Graphene topic, two sub-calls aimed at basic research and applied research and innovation, with different country participation and evaluation criteria weights
- Funding both Flagship Core Project partners and new partners
- 22 funding organisations from 18 countries
- Indicative budget: 20 M€
- Two-step evaluation process
- **Pre-proposal deadline: February 19<sup>th</sup>, 2019, 17:00 CET**

# Participating countries

Graphene	HBP
BE	BE
BG	BG
DE	
EE	EE
ES	ES
FR	FR
GR	GR
HU	HU
IL	IL
IT	IT
LT	LT
LV	LV
	NL
RO	RO
SE	
SI	SI
SK	SK
TR	TR



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# Flagship specific features

- Research areas where synergies with the Flagships are expected have been defined in collaboration with the Flagships
- Partners in selected projects who are not already Flagship Core Project members are expected to join the Flagships as associated members
- For the HBP topic, except for applicants who would opt out of this possibility, a feedback from Flagship representatives about potential areas of further collaboration is provided on the basis of the Flagship partnership forms included in the pre-proposals

# Research Areas - Graphene

1. Synthesis and characterization of layered materials beyond graphene
2. Graphene and related materials (GRMs) for Quantum Technologies
3. Optimized GRM-based tunnel barriers for efficient spin injection and detection into graphene under operational conditions
4. Spin torque and layered-materials-based memory building block
5. Synthesis of monolayers of non-layered compounds
6. Bacterial degradation of GRMs
7. Osteoinductivity and immunisation capacity of GRMs
8. Soft graphene-based materials for tissue engineering
9. GRM-based large-area light emitters and arrays
10. Low temperature growth of layered semiconductors for flexible applications
11. Nanofluidics based on GRMs
12. CVD growth of graphene on insulators
13. Sensors from GRMs and their heterostructures
14. Passive components for radio frequency electronics based on GRMs
15. Infrared photodetectors based on GRMs and their heterostructures
16. LIDAR based on GRMs for autonomous vehicles
17. Moore's law continued through GRMs
18. GRM-based tandem solar modules
19. Graphene-based cathode materials for Li-ion batteries
20. Re-usable templates for graphene production

# Research Areas – HBP

1. Development and maturation of cognitive processes and multisensory integration at micro- and macro-scales
2. The role of neurotransmitter systems in human cognition
3. Subcortical structures: from cognition to action
4. The neuroscience of decision-making
5. Studies on biological deep learning and combined declarative and working memory
6. Disease modelling and simulation
7. Single cell RNA sequencing of human and mouse brain
8. Predictive neuroinformatics: A trans-species approach
9. Testing neuronal models at multiple scales
10. Automated construction and analysis of models of neurons and networks
11. Reconstruction of neuronal morphology from microscopic image data
12. Neuron data format standardization

# Main eligibility rules

- International consortia involving at least
  - 3 partners requesting funding from 3 participating countries, or
  - 2 partners requesting funding from 2 participating countries and a partner from another country securing its own funding as a Flagship Core Project partner
- In both cases, partners requesting funding may be Flagship Core Project members
- The coordinator must be funded through the call
- The consortium must be balanced
  - Requested funding in a given country should not exceed 60% of the total requested funding (75% if funding is requested in 2 countries)
- Researchers who are not eligible for funding by an organisation participating in the call can participate in a project if they secure their own funding
- Project duration: up to 3 years and according to individual funding organisation regulations



# Evaluation criteria

- The usual criteria for European projects are used
  - Excellence: Scientific and/or technological quality
  - Implementation: Quality and efficiency of the implementation and management
  - Impact: Potential impact through the development, dissemination and exploitation of results
- The criteria weights depend on the sub-call

	Graphene		HBP
	Basic research	Applied research and innovation	Basic and applied research
Excellence	50%	30%	40%
Implementation	30%	30%	30%
Impact	20%	40%	30%

# Indicative Budgets per country (k€)

Country		Funding organisation	Graphene (k€)		HBP (k€)	Anticipated nb of fundable research groups
			Basic research	Applied research and innovation	Basic and applied research	
BE	Belgium	FNRS	200		200	2-3
		FWO	350		350	2-3
BG	Bulgaria	BNSF	100			2-3
DE	Germany	DFG	2 000			10-12
EE	Estonia	ETA <sub>g</sub>	100		100	2
ES	Spain	AEI	700			5-7
		IDEPA	200			1-2
		ISCIII			500	3-4
FR	France	ANR	1 000		1 000	8-10
GR	Greece	GSRT		900	700	7-9
HU	Hungary	NKFIH	300		300	4-6
IL	Israel	InnovationAuth	500		500	3-5
IT	Italy	MIUR		300	300	4-6
LT	Lithuania	LMT	100		100	2-3
LV	Latvia	VIAA	300			2-3
NL	Netherlands	NWO			700	3
RO	Romania	UEFISCDI		250	250	3-4
SE	Sweden	VINNOVA		750		2-4
		VR	750			2-4
SI	Slovenia	MIZS	420		210	3
SK	Slovakia	SAS	120		120	2
TR	Turkey	TUBITAK	2 500			10-15

# Main steps after submission

- Proposals are assessed by an independent international Scientific Evaluation Panel (SEP)
- The list of project recommended for funding is established on the basis of this assessment and on the available funding
- Timeline
  - May 2019: Notification of accepted short proposals
  - July 2019: Full proposal submission deadline
  - November 2019: Notification of accepted full proposals
  - December 2019 – March 2020: Project start (up to 3 years)

# Further information

Call Announcement:

**<http://www.flagera.eu>**

National and regional contact points:

**Cf. Call Announcement (Annex III)**

Joint Call Secretariat:

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