



# FLAG-ERA

## The ERA-Net for supporting the FET Flagships

[www.flagera.eu](http://www.flagera.eu)

Coordination FLAG-ERA: [marie-alexandra.neouze@anr.fr](mailto:marie-alexandra.neouze@anr.fr)

Graphene Flagship contact: [graphene-eu@esf.org](mailto:graphene-eu@esf.org)

HBP contact: [flag-era2021@ebrains.eu](mailto:flag-era2021@ebrains.eu)

Supported by the



# Transnational calls

## Scope: supporting Flagships

**\*) JTC 2015, 2017 & 2019 supporting Graphene Flagship and HBP**

**Topics defined with the funding agencies & Flagships**

**Graphene Basic and Applied Research**  
**HBP computing neuroscience**



**\*) JTC 2016 for Flagship Pilot projects**

# Transnational calls Graphene & HBP

## Outreach

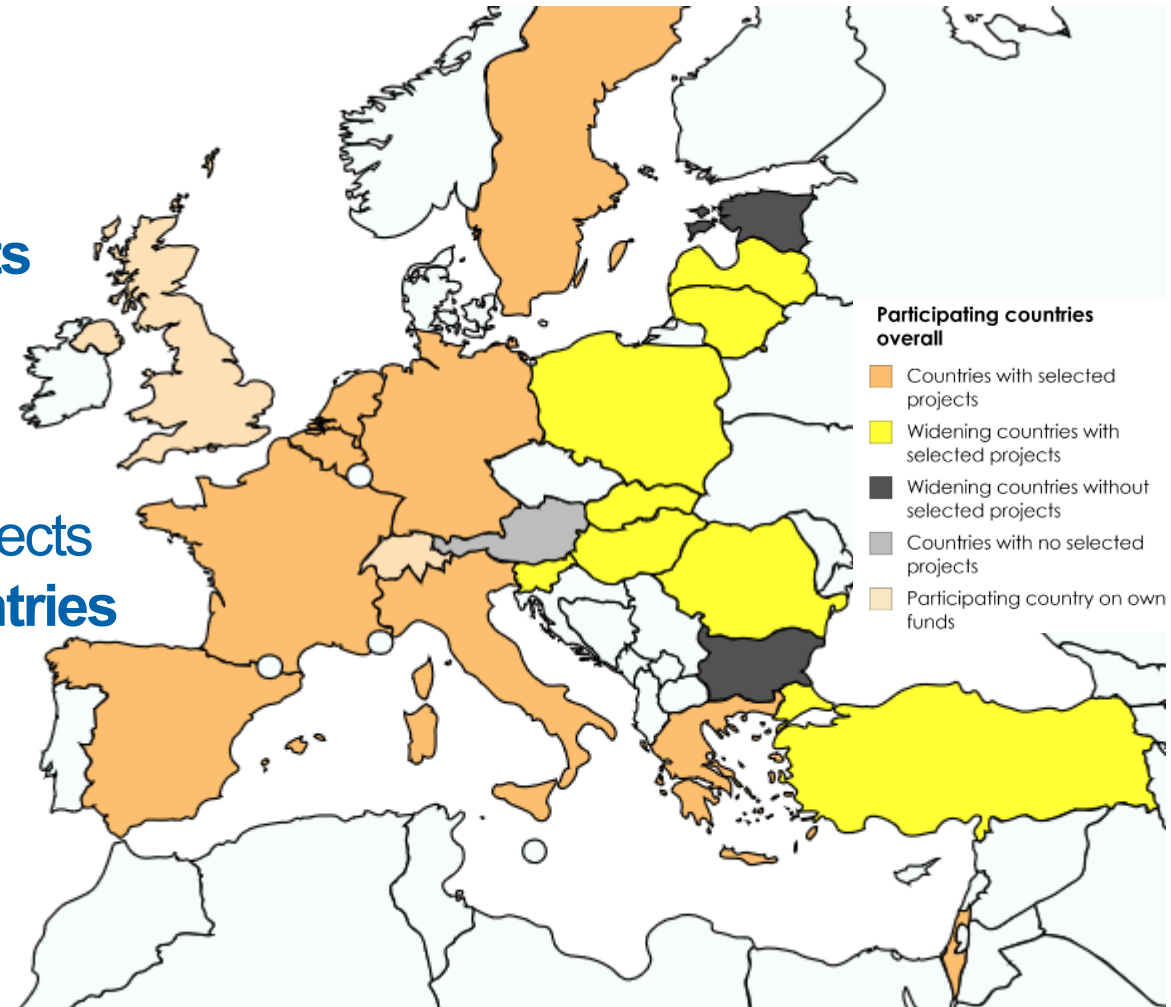


**67 funded projects**  
Representing **309 participants**

**27% success rate**

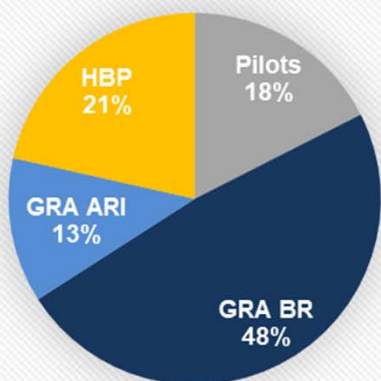
**20 countries** with funded projects  
From which **8 widening countries**

Effective budget **42,5 M€**

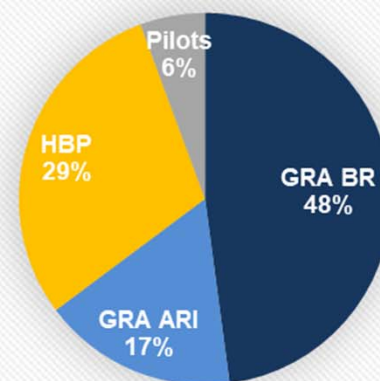


# FLAG-ERA calls: distribution Funding & Projects

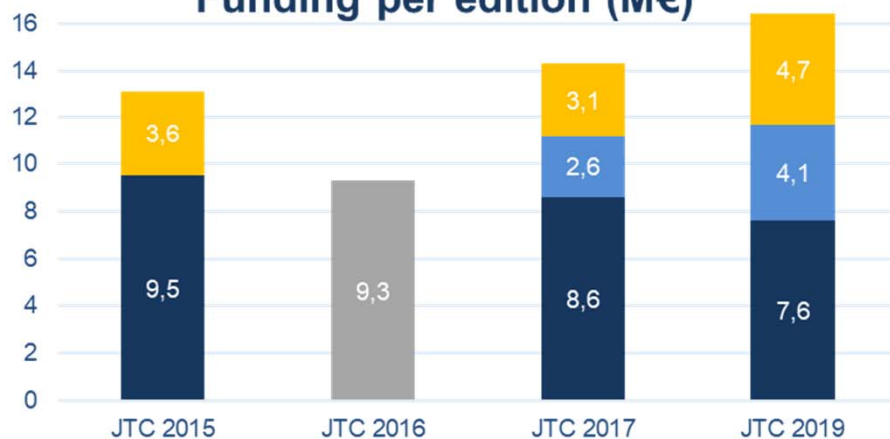
Total funding : 53,1 M€



71 projects



Funding per edition (M€)



Number of projects per edition



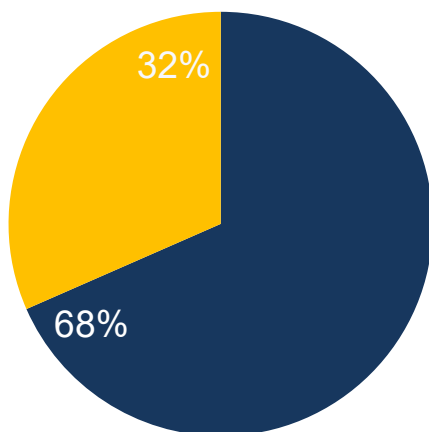
# Transnational calls Graphene & HBP

## Statistics

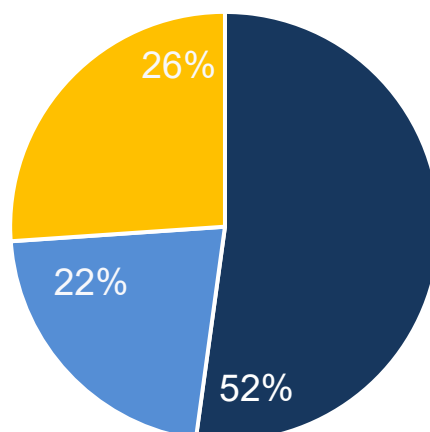


Funded projects	JTC 2015	JTC 2017	JTC 2019
Graphene Basic Research	13	12	9
Graphene Applied R&I		5	7
Human Brain Project	6	6	9
Overall	19	23	25
<b>Success rate</b>	<b>18%</b>	<b>34%</b>	<b>30%</b>

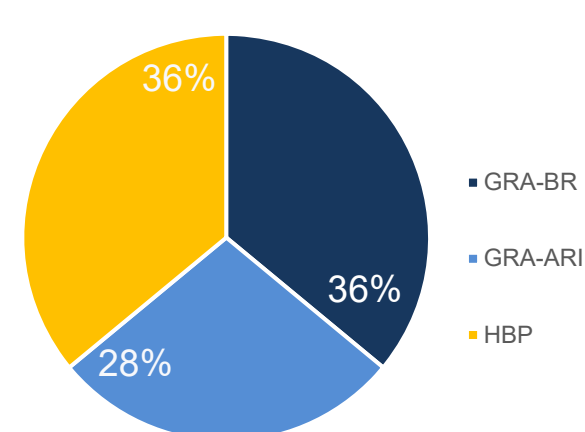
JTC 2015



JTC 2017



JTC 2019



# JTC 2021



[www.flagera.eu](http://www.flagera.eu)  
**Submission Dead Line April the 19<sup>th</sup> 2021**



**15 countries**  
**18 funding agencies**





























## Practical Information



ABOUT ▾ NEWS **FLAG-ERA CALLS ▾** FUNDED PROJECTS HUMAN BRAIN PROJECT ▾ GRAPHENE FLAGSHIP ▾

PARTNER SEARCH FORM

EXPRESSION OF INTEREST

JTC 2015 >

JTC 2016 >

A JTC2017 >

JTC 2019 >

**JTC 2021 >**

### Call announcement

This call is now open

place on January 19, 2021. Registration link will be provided soon

**REGISTER AS A FLAG-ERA JTC2021 EVALUATOR**

**PRE-ANNOUNCEMENT**

**CALL ANNOUNCEMENT**

**\*\* Last updated on**

FLAG-ERA gathers together with the European Commission, the FET Flagship (HBP) Flagship. One of its main aims is to allow researchers towards the achievement of their vision using existing ERA aims at launching dedicated JTCs allowing researchers. Note that researchers interested to work in the framework in combination with the Flagship association mechanisms (Graphene Flagship, Human Brain Project).

## Eligibility criteria

- Consortia must be **international**. They must involve 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.
- Consortia must be **balanced**:
  - The maximum requested funding allowed per country in a proposal is 60% of the total requested funding of the proposal,
  - if only partners from 2 countries apply for funding, in which case this figure is raised to 75%.

## ! 1 step procedure !



# JTC 2021

- Consortia must be **international**;
- Consortia must be **balanced**, regarding the participations of the partners (and the funding);
- Furthermore, **FLAG-ERA promotes**:
  - Participation of widening countries;
  - Gender balanced consortia.

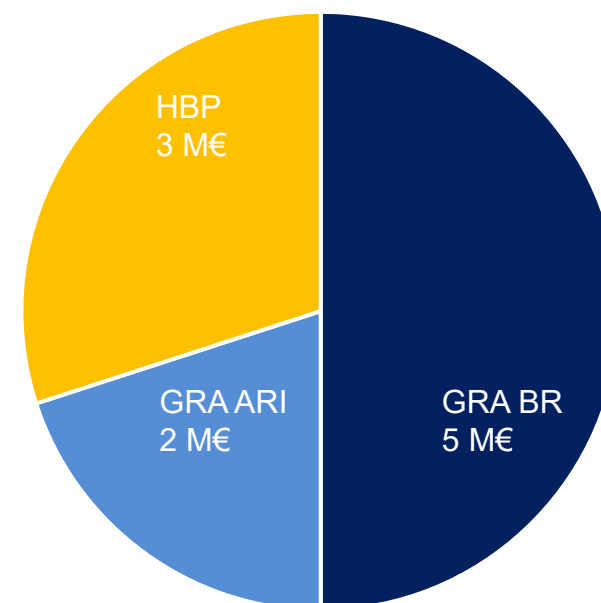
## 1 step procedure

# JTC 2021



Country		Funding agency	Graphene Basic	Graphene Applied	HBP
BE	Belgium	FNRS			
BE	Belgium	FWO			
BG	Bulgaria	BNSF			
DE	Germany	DFG			
ES	Spain	AEI			
ES	Spain (Asturias)	IDEPA			
ES	Spain	ISCIII			
FR	France	ANR			
HU	Hungary	NKFIH			
IL	Israël	Innov Authority			
LT	Lithuania	LMT			
LV	Latvia	VIAA			
NL	Netherlands	ZonMW			
RO	Romania	UEFISCDI			
SE	Sweden	VR			
SI	Slovenia	MIZS			
SK	Slovakia	SAS			
TR	Turkey	TUBITAK			

Committed budget: 10M€





# JTC 2021

## Graphene Basic Research dedicated sub-call

- Layered magnetic materials and heterostructures
- Growth and device integration of two-dimension amorphous material
- Scalable growth & device integration of ultralow power spin-orbit memories based on GRMs
- Bacterial degradation of GRMs
- GRM based devices and circuits for neuromorphic computing
- Infrared+THz emission and detection with twisted GRMs
- Functionalized GRMs for advanced multivalent metal-ion batteries (MMIBs)
- Chemical sensing with GRMs
- Mxene foams for capacitive deionization water desalination
- Rheological models for GRM suspensions and multiphase flows



## Graphene Applied Research and Innovation dedicated sub-call


- Antiviral protection with GRM-based foams and coatings
- GRM-based neural interfaces for bioelectronics medicines
- GRM-based spectrometer for visible and infrared
- GRM-based, ultra-broadband THz-transceiver technologies for 6G compliant wireless communication
- Tuning the hot-carrier lifetime in layered materials heterostructures for photoresponsivity enhancement
- GRMs for advanced metal-ion supercapacitors
- GRM-based electrodes for redox flow batteries
- GRM components for self-charging and self-powered electronics



## Human Brain Project dedicated sub-call

The projects should propose **holistic approaches combining computer sciences and neurosciences** to address at least one of the following aims:

- **Studying genotype-phenotype relationships related to brain function.** projects dealing with anatomical as well as functional phenotypes in animal models as well as in large human cohorts are eligible.
- **Tackling psychiatric diseases.** Research projects developing diagnostic, patients stratification or treatment strategies for Psychiatric Diseases by combining diverse types of clinical data as well as data covering social aspects of these diseases including subjective well-being are eligible.
- **Accelerating the diagnosis and the development of therapeutic approaches for rare diseases affecting the nervous system.** Clinical and preclinical proposals making use of available medical or preclinical datasets for or simulation studies are eligible.

The projects falling within the scientific scope of this call for proposals are invited to consider using the following  EBRAINS resources (<https://ebrains.eu>)

Contact: [flag-era2021@ebrains.eu](mailto:flag-era2021@ebrains.eu)

## Practical Toolbox

<https://www.flagera.eu/flag-era-calls/flag-era-joint-transnational-call-jtc-2021/jtc2021-call-announcement/>

### Links to relevant documents

To learn more on the topics, eligibility criteria and the submission of proposals to the JTC2021, please consult the [FLAG-ERA JTC2021 Call announcement](#).

In order to facilitate contacts with the relevant parts of the Flagships, contact information is provided for the [Graphene Flagship](#) and the [HBP](#).

A [JTC 2021-Partner\(s\) Search Tool](#) for submitting Expressions of Interest (Eoi) is currently open. Consult all the [JTC 2021 Eoi](#).

To prepare your pre-proposal, use the [FLAG-ERA JTC2021 Proposal Form](#) and the Flagship partnership proposal form for either Graphene or HBP.

To help you through the submission process, please consult the [FLAG-ERA JTC 2021 Submission Guidelines](#).

The links to the submission web sites are:

- [Graphene – Basic Research](#)
- [Graphene – Applied Research and Innovation](#)
- [HBP – Basic and Applied Research](#)

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#### Potential partner looking for a project

**Main topic(s) of interest :** Graphene (Basic Research), Graphene (Applied Research and Innovation)

**Brief description of expertise :**

Department of Catalysis and Chemical Reaction Engineering is primarily invested in chemical (process) engineering, reactor and unit operation design and construction, as well as multi-scale process modelling. The Department topics foremost include carbon dioxide and natural gas conversion, hydrogen and fuel cell technologies, biomass valorisation to bio-based compounds, and (bio)pharmaceutical processes (<https://www.ki.si/en/departments/d13-department-of-catalysis-and-chemical-reaction-engineering/>).

**Keywords :** Modelling, Multi-scale, Simulation, Materials, Optimisation, Ab Initio, In Silico

**First Name :** Matej

E-mail address : [matej.hus@ki.si](mailto:matej.hus@ki.si)

Last Name : Huš

Telephone : 00386 1 4760 373

Country : Slovenia

## Practical Toolbox

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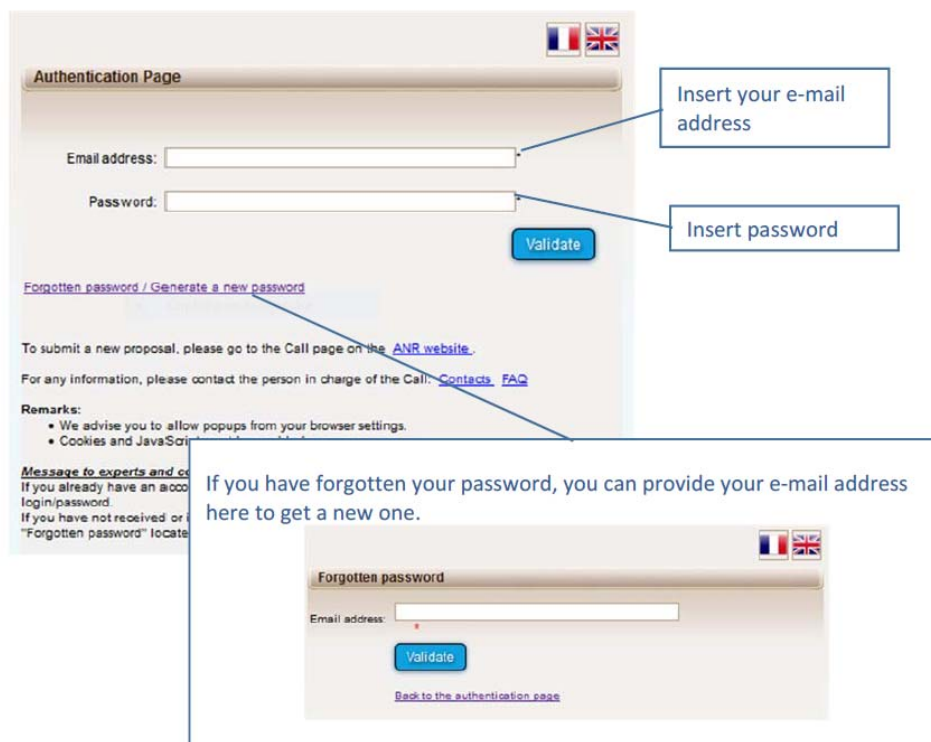
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#### 2.4. Authentication page



The screenshot shows the 'Authentication Page' with the following elements:

- Email address:** A text input field with a callout box pointing to it that says "Insert your e-mail address".
- Password:** A text input field with a callout box pointing to it that says "Insert password".
- Validate:** A blue button next to the password field.
- Forgotten password / Generate a new password:** A link below the password field.
- Remarks:** A section with bullet points: "We advise you to allow popups from your browser settings." and "Cookies and JavaScript".
- Message to experts and co-applicants:** A section with text: "If you already have an account login/password. If you have not received or if you have forgotten your password, you can provide your e-mail address here to get a new one." This section is highlighted with a blue box.
- Forgotten password form:** A smaller form below the message with an "Email address:" field and a "Validate" button.
- Back to the authentication page:** A link at the bottom of the forgotten password form.

contact information is provided for the Graphene Flagship

Form (EoI) is currently open. Consult all the [JTC 2021 EoI](#).

Form and the Flagship partnership proposal form for either

[FLAG-ERA ITC 2021 Submission Guidelines.](#)



# The 2 missions of FLAG-ERA

**Networking** the funding organizations regarding Flagships topics

**Coordinating the efforts** of the funding agencies to promote the Flagship initiatives

**Enabling; Facilitating; Improving**  
The **dialogue** from the Flagships toward the research communities, and the contrary around

Launching and managing transnational calls

**Funding the best transnational initiatives** in the domain of the Flagships

Flagship Partnering Projects

# FLAG-ERA Transnational calls

## Scope & Outreach

**Mostly Trans-disciplinary projects**

**ICT related Flagship Pilot Projects**

**ICT and / for Material Sciences:**

Graphene

Basic and Applied Research

**ICT and / for Neurosciences:**

HBP computing neuroscience

**23 countries** with funded projects  
From which **9 widening countries**

**30% success rate** on the co-funded calls

**71 funded projects**  
Representing **378 participants**

Effective funding **53,1 M€**

**New Flagship Partnering Projects**