

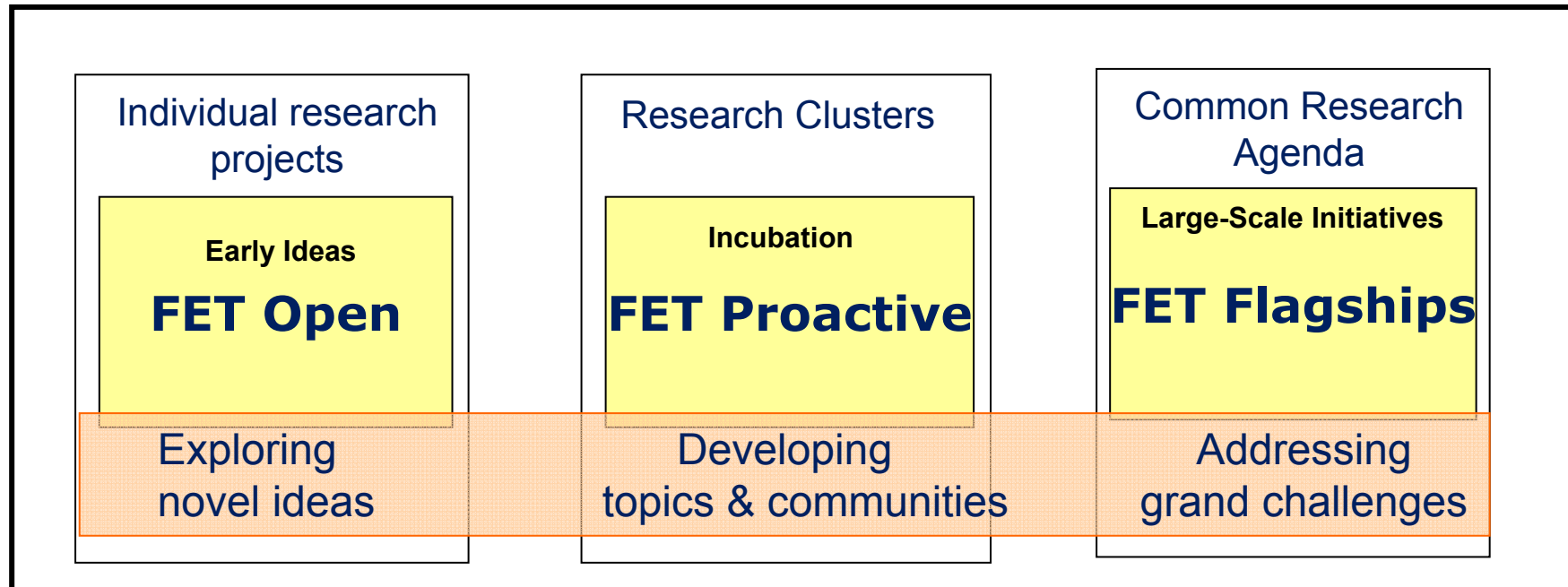
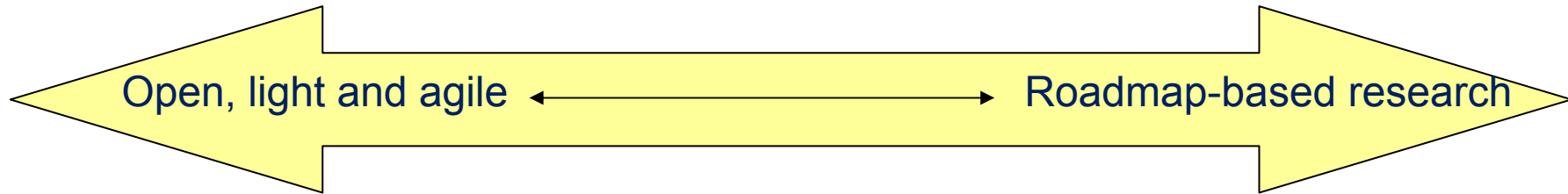


# FET Flagships Calls for Proposals Workprogramme 2014-15

Andrew Houghton

Deputy Head of Unit Flagships  
European Commission  
Brussels

Brussels 20/01/2014



In Horizon 2020 FET is positioned as a cross-thematic programme



## "FET Flagships- pursuing grand interdisciplinary scientific and technological challenges

Research initiatives within this strand are science- and technology-driven, large-scale, multidisciplinary and built around a visionary unifying goal. They tackle grand science and technology challenges requiring cooperation among a range of disciplines, communities and programmes. The scientific and technological advance should provide a strong and broad basis for future innovation and economic exploitation, as well as novel benefits for society of a potential high impact. The overarching nature and magnitude implies that they can only be realised through a collaborative long-term and sustained effort."

*[From H2020 Specific Programme; EN L 347/982 Official Journal of the European Union 20.12.2013*



## Partnerships for scientific leadership

- To tackle **grand S&T challenges** requiring a **common European effort** and long term support (up to 10 years)
  - **Visionary** and **highly ambitious initiatives** in terms of S&T challenges addressed and resources to be deployed
  - Large-scale, **science-driven, multidisciplinary** endeavours with a **unifying goal**
- To enable **alignment of national, regional and EU actions** and initiatives
- To deliver **transformational impact** on science, technology and society
- **budget** of 1BEuros (10 years) , 50% EU Funding



European Commission

# Timeline



## SCIENCE WORLD REPORT

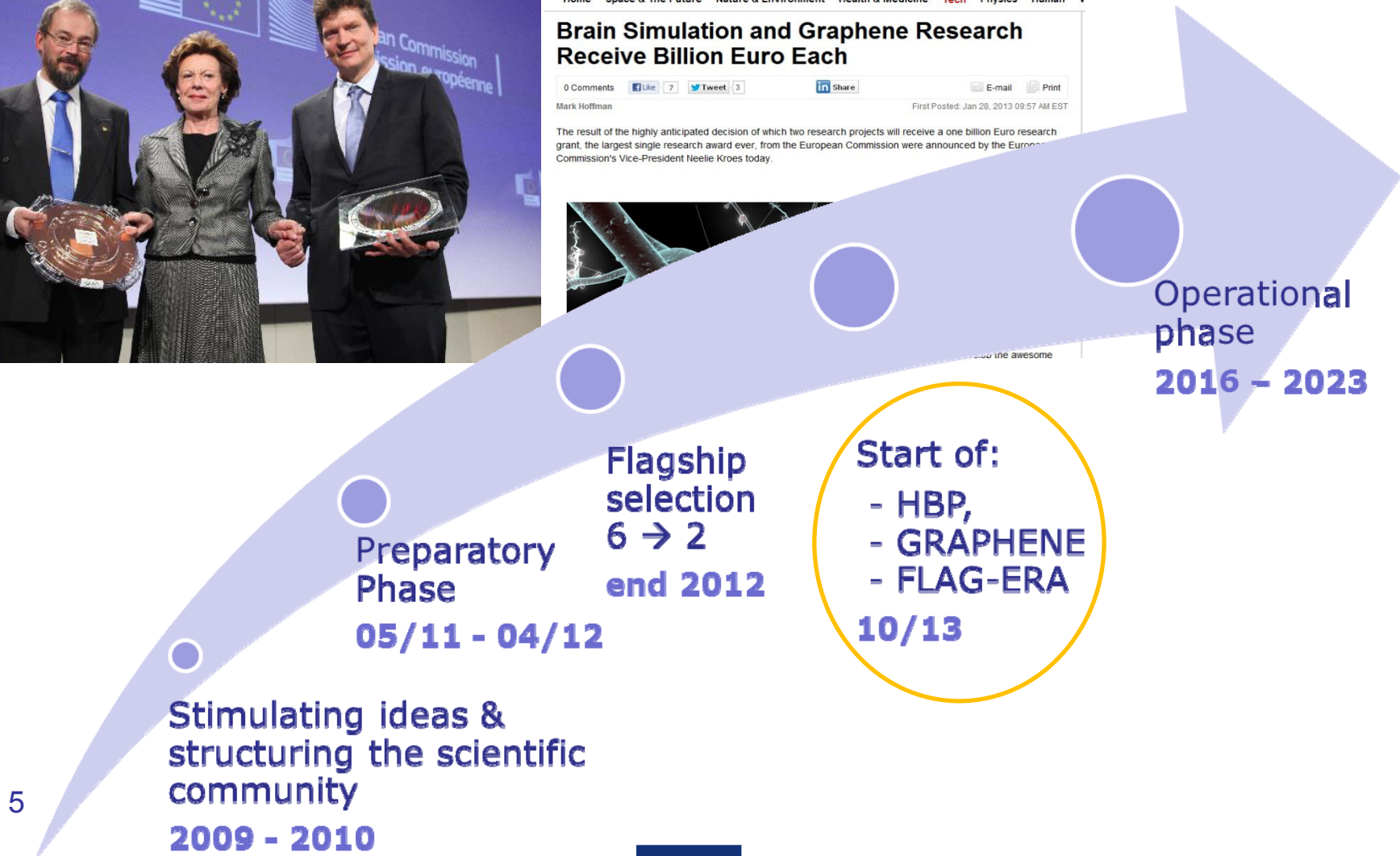
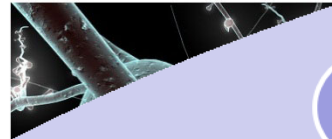
Home Space & The Future Nature & Environment Health & Medicine Tech Physics Human V

### Brain Simulation and Graphene Research Receive Billion Euro Each

0 Comments Like 7 Tweet 3 Share E-mail Print

Mark Hoffman First Posted: Jan 28, 2013 09:57 AM EST

The result of the highly anticipated decision of which two research projects will receive a one billion Euro research grant, the largest single research award ever, from the European Commission were announced by the European Commission's Vice-President Neelie Kroes today.





## GRAPHENE

Start Date: 01 October 2013. Duration: 30 Months  
EC Funding: 54 MEuros  
Coordinator: Chalmers Tekniska Hoegskola AB, Gothenburg, Sweden  
# of Partners: 75  
Contact: Prof. Jari Kinaret  
Website: <http://www.graphene-flagship.eu>

## Human Brain Project

Start Date: 01 October 2013. Duration: 30 Months  
EC Funding: 54 MEuros  
Coordinator: Ecole Polytechnique Federale de Lausanne, Switzerland  
# of Partners: 80  
Contact: Prof Henry Markram  
Website: <https://www.humanbrainproject.eu>



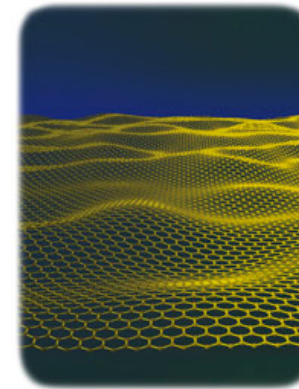
## Graphene FET Flagship

**Graphene, is a 2D material , a single layer of carbon atoms, stronger than diamond, yet lightweight and flexible** and an exceptional electricity conductor.

The Graphene Flagship will bring graphene, and related 2D materials, **from academic labs to industry, manufacturing and society.**

### Examples Applications:

- ✓ electronic paper; bendable smartphones; enhanced solar cells and batteries; lighter and more energy efficient airplanes ...
- ✓ On the longer term, graphene is expected to give rise to new computers and revolutionary medical applications such as artificial retinas.



*Artistic impression of a corrugated graphene sheet  
Credit: Jannik Meyer*



*Nokia Morph concept - Credit: Nokia Research Center*

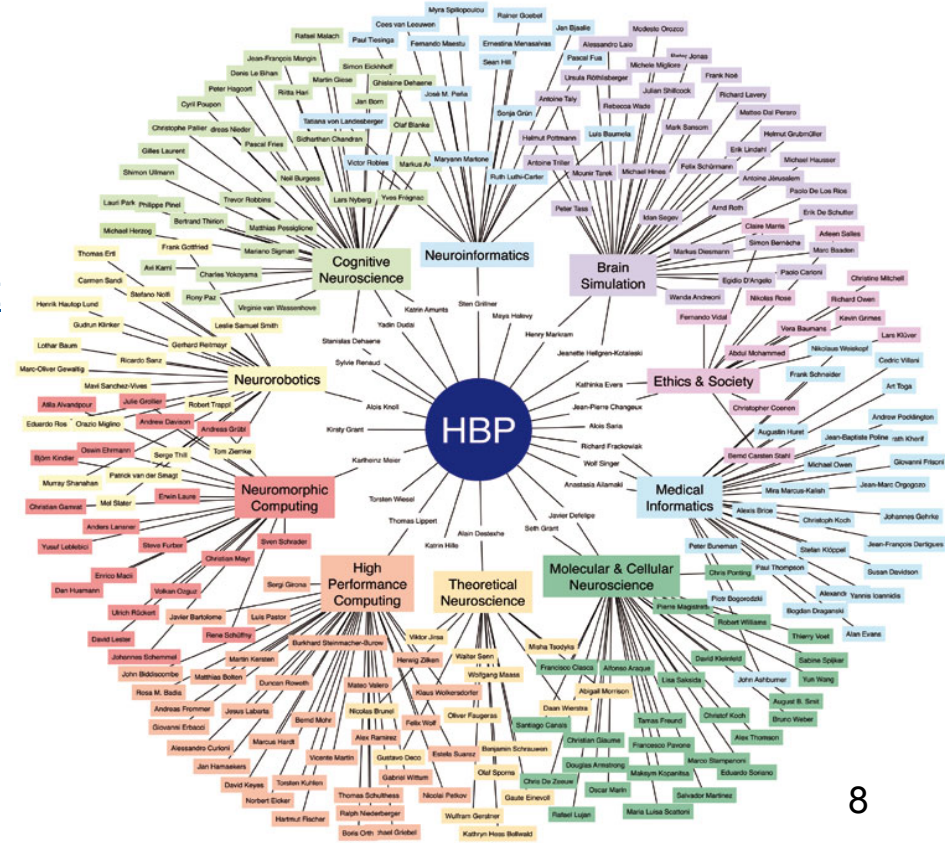


## The Human Brain Project (HBP)

HBP will create the world's largest **experimental facility for developing the most detailed models of the brain** (from genes to mind), for studying how the human brain works and ultimately for simulating and developing personalised treatment of brain diseases.

This research lays the scientific and **technical foundation for medical progress**: identifying new drug targets and treatment, in response to the urgent need to combat brain diseases and their associated costs to society.

HBP will also produce brain-inspired **'neuromorphic' computing** systems that could drastically reduce power-consumption for super-computers and enhance robots.







## **FLAG-ERA:**

**Started 01 October 2013**  
**2.0 MEuros, 36 months**  
**Coordinator: ANR (Fr)**

### **31 Ministries & Non-Research Funding Organizations from:**

- Member States (MS)
- Associated Countries (AC)
- European Regions (MS/AC)

**Enhanced complementarities and synergies of regional, national, European and international research programmes and initiatives, with:**

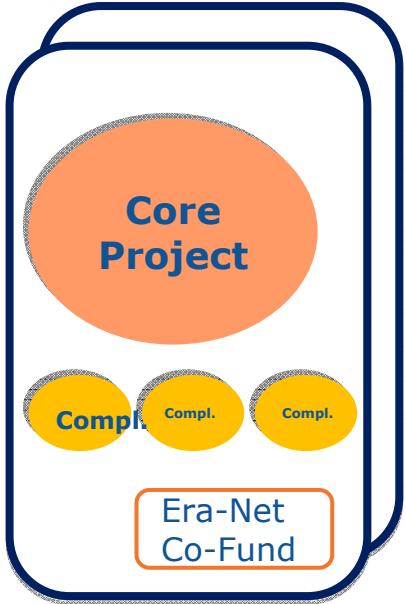
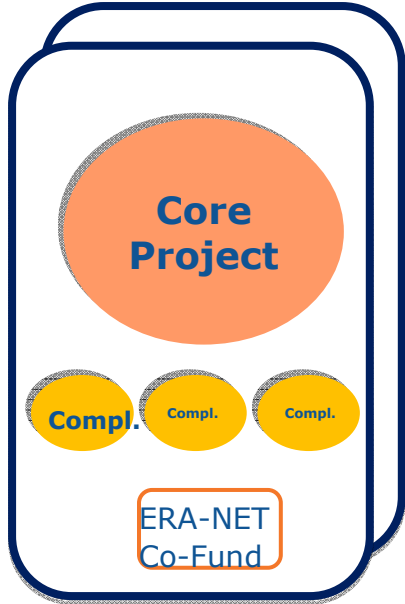
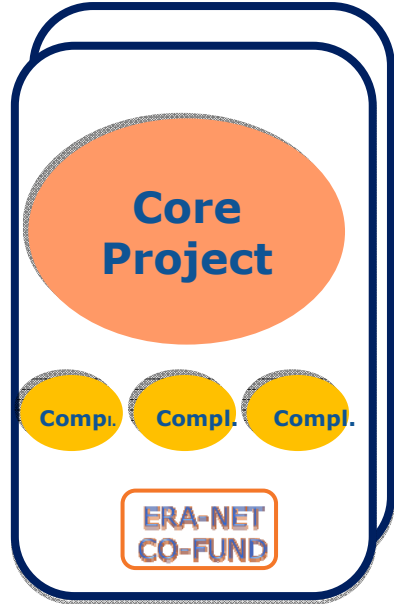
- a) Networking / discussions of matters of interest related to the two FET Flagships;**
- b) Identification of areas that complement the core projects and to launch future (trans)national calls for research projects;**
- c) Reducing the fragmentation of the ERA by taking up new opportunities for Excellence**



# Implementation Model



GRAPHENE  
HBP



Budgets:  
HBP: 72M€  
Graphene : 75M€  
EU funding:  
54 M€ each

50 M€/year EU funding  
~100 M€/year budget



**2013 – 2015**  
**FP7**

**2016 – 2023**  
**H2020**





**FETFLAG-1-2014 Framework Partnership Agreement (1)**  
**Deadline 2014-04-10 17:00 (Brussels time) (Zero Budget)**  
**Type of action: Framework Partnership Agreements**

**Specific challenge:**

The objective is to establish, for each of the FET Flagships, a stable and structured partnership between the EC and the institutions and organisations who commit themselves to establish, maintain and implement the strategic research roadmap of the flagship. These partnerships will be set up through a Framework Partnership Agreement (FPA) which will cover the full initiative in order to enable the completion of the research roadmap within the context of the agreement.

The consortia responding to the call may include research institutes, universities, foundations, industry, SMEs as well as other organisations that can play a role in the realisation of the Flagships. The Framework Partnership Agreement shall specify the common objectives, the nature of the actions planned, and the procedure for awarding specific grants.



## **FETFLAG-1-2014 Framework Partnership Agreement (2)** **Deadline 2014-04-10 17:00 (Brussels time) (Zero Budget)** **Type of action: Framework Partnership Agreements**

**Scope:** Proposals should address the following points:

- The general and specific objectives of the partnership;
- The related research roadmap;
- The initial consortium which will implement the Flagship initiative;
- The way the consortium will foster complementarities, foster synergies and enhance the overall outcome of regional, national, European and international research programmes;
- The commitments made by the consortium members, which would be complementary to EU/national contributions;
- Quantified targets for the Flagship initiative and Key Performance Indicators to assess the expected progress over time;
- The governance structure, including provisions for openness and evolution of the consortium;
- The ability of the consortium to seize exploitation opportunities.

### **Expected impact:**

- Formalised commitment of the partners of the Flagship partnership;
- Stable and structured environment for the benefit of the realisation of the Flagship;
- Overall continuity and coherency in the execution of the Flagship.



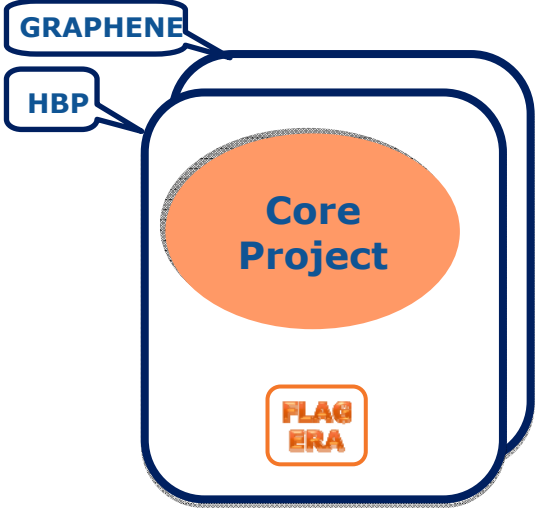
The Framework Partnership Agreements will be the framework for implementing Specific Grant Agreements (SGAs).

The SGAs will be launched to support a Core project to implement the 10-year strategic roadmap (FPA Action plan) (in WP2014-2015 + later WPs) (2x89Meuros budgeted in WP2015)

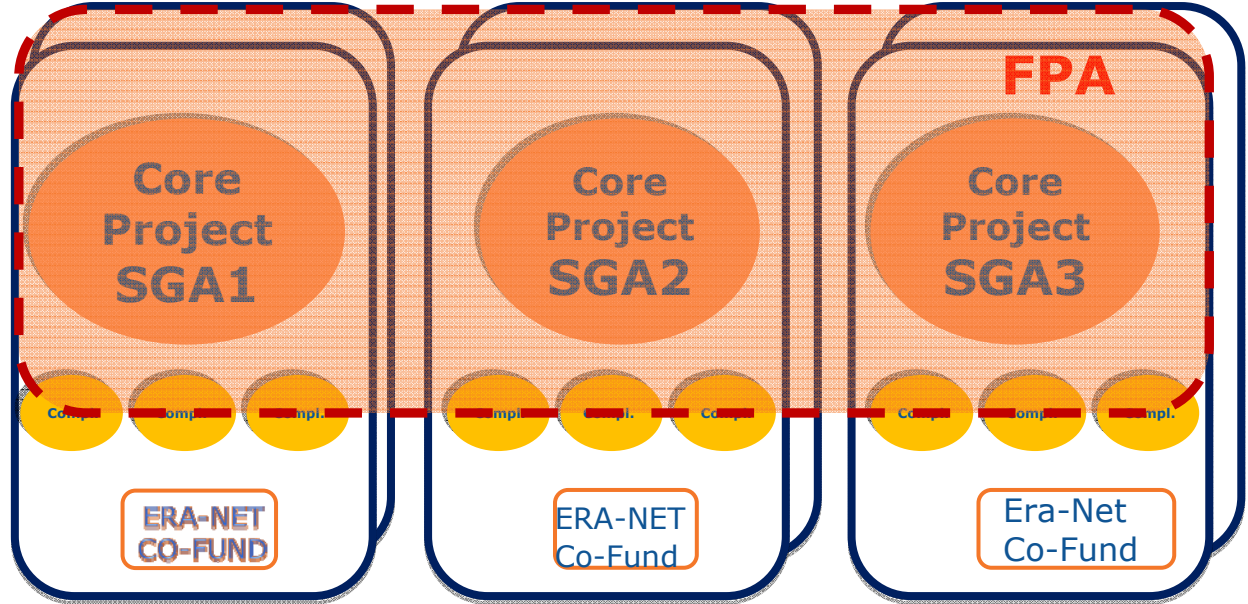
Complementary projects are foreseen to complement the core project (as from WP2016 + later WPs)

A Call for an ERA-NET CoFund project is expected in WP2016, as follow-up to the current ERA-NET ("FLAG-ERA"), and in later WPs

# Implementation Model



Budgets:  
HBP: 72M€  
Graphene : 75M€  
EU funding:  
54 M€ each



50 M€/year EU funding  
~100 M€/year budget



**Ramp-up Phase**

**Operational Phase**

**2013 – 2015  
FP7**

**2016 – 2023  
H2020**





H2020 FETFLAG-2-2014 **Policy environment for FET Flagships**

Total Call Budget €1,600,000 Deadline 2014-04-10 17:00 (Brussels time)

Type of action: **Coordination and Support Actions**

## **Specific challenge:**

The overall challenge is to foster a common European effort by contributing to dissemination efforts, impact assessments and other actions which support and strengthen the FET Flagship initiatives. This also extends to enhancing the interplay between FET Flagships and other Union policies and technology transfer of technologies towards exploitation. **Any proposal has to demonstrate that it adds value beyond the activities implemented in each the FET Flagships Graphene and HBP.**



## H2020 FETFLAG-2-2014 **Policy environment for FET Flagships**

Total Call Budget €1,600,000 Deadline 2014-04-10 17:00 (Brussels time)

Type of action: **Coordination and Support Actions**

### **Scope:**

Actions supporting the policy environment of the FET Flagships, addressing aspects such as:

- Supporting collaboration between the FET Flagships and international programmes;
- Assessing the impacts of FET Flagship initiatives, including through metrics and indicators;
- Analysing market potential and supporting technology transfer;
- Collection of information need for policy making, e.g. through consultation actions and surveys.





## H2020 FETFLAG-2-2014 **Policy environment for FET Flagships**

Total Call Budget €1,600,000 Deadline 2014-04-10 17:00 (Brussels time)

Type of action: **Coordination and Support Actions**

### **Expected impact:**

- enhanced flow of information from FET Flagships towards in particular policy makers and the wider public;
- enhanced complementarities between FET Flagships and related initiatives, in particular those at a global level;
- improved understanding of impacts of FET Flagships on science, technology, economy and society;
- Better use of opportunities for technology transfer, innovation and exploitation;
- Improved availability of information need for policy making;
- Stable and structured environment for the benefit of the FET Flagships.



## WP2014 Proposals: Timetable

Submission Deadline: 10 April 2014, 17:00

Evaluation: early June

Deadline for ESRs: 10 September

Deadline for Grant signature: 10 December

Projects start work: 01 Dec 2014 or 01 Jan 2015

FAs: 2 Projects (Zero funding)

CSAs: 1.6 MEuro funding; 3-5 projects (*indicative*)

*[WP2015: 2 SGA projects: 89 MEuro each]*





# Agenda for Flagship Afternoon Session

(Chair: Francois Junique)

Presentation on FPA Model Grant Agreement  
Presentation on FPA Proposal Template  
Presentation on CSA aims and topics  
Proposers' presentations





## Further information:

- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2073-fetflag-2-2014.html>
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2072-fetflag-1-2014.html>
- [http://cordis.europa.eu/fp7/ict/programme/fet/flagship/home\\_en.html](http://cordis.europa.eu/fp7/ict/programme/fet/flagship/home_en.html)
- <http://www.graphene-flagship.eu/>
- <https://www.humanbrainproject.eu>
- <http://ec.europa.eu/digital-agenda/en/news/horizon-2020-future-emerging-technologies-fet-information-day>