

Le programme FET

Future &
Emerging
Technologies

... OU ...



HORIZON **2020**

LE PROGRAMME DE RECHERCHE ET
D'INNOVATION DE L'UNION EUROPÉENNE

PCN FET



pcn-fet@recherche.gouv.fr



<http://www.horizon2020.gouv.fr/pid30124/abonnement-lettre-information-aux-alertes.html>



[@PCN_FET_France](https://twitter.com/PCN_FET_France)

Prénom - NOM	Rôle	Etablissement	Téléphone
 Mathieu GIRERD	Coordinateur du PCN	ANR - Agence nationale de la recherche	33 1 73 54 82 13
 Guillaume FUSAI	Représentant au Comité de Programme	Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation	33 1 55 55 96 31
 Subbarao BASSAVA	PCN	CNRS - Centre national de la recherche scientifique	33 1 44 96 41 40 33 6 33 53 86 77
 Catherine GILLES- PASCAUD	PCN	CEA - Commissariat à l'énergie atomique et aux énergies alternatives	33 1 69 08 64 29
 Pascale MASSIANI	PCN	C.N.R.S. - Institut de Chimie	33 1 44 96 40 87 33 1 44 27 49 74
 Mariama COTTRANT	PCN	Université de Versailles-Saint-Quentin-en- Yvelines	33 1 39 25 78 05
Maria SCHUBER	PCN	Inserm	33 1 44 23 61 08

Historique de FET

Un programme initié en 1993

Géré par la DG-CONNECT

Ouvert à tous types de technologies sous Horizon 2020
(limité auparavant aux TIC)



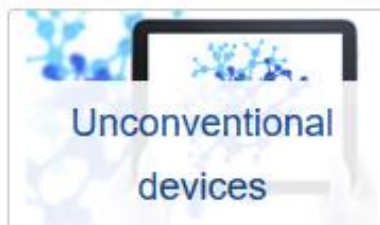
The sower, Vincent van Gogh

“FET activities aim to create in Europe a ***fertile ground*** for responsible and dynamic ***multi-disciplinary collaborations*** on ***future technologies*** and for kick-starting new European research and innovation eco-systems around them. These will be ***SEEDS*** for ***future industrial leadership*** and for tackling society's grand challenges ***in new ways.***”

➔ Recherche fondamentale

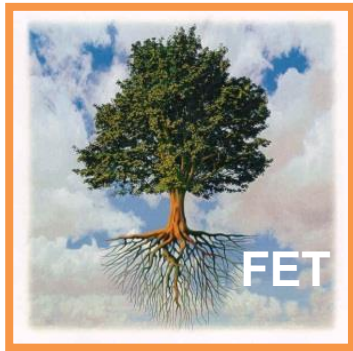
➔ Objectif moyen/long-terme (≈ 10 ans)

Thématiques des Projets Financés



<https://ec.europa.eu/digital-single-market/en/fet-projects-portfolio>

FET dans Horizon 2020



Pilier 1

EXCELLENCE SCIENTIFIQUE

- ERC : Conseil européen de la recherche
- MSCA : Actions Marie Skłodowska-Curie
- FET : technologies futures et émergentes
- Infra : infrastructures de recherche

Pilier 2

PRIMAUTE INDUSTRIELLE

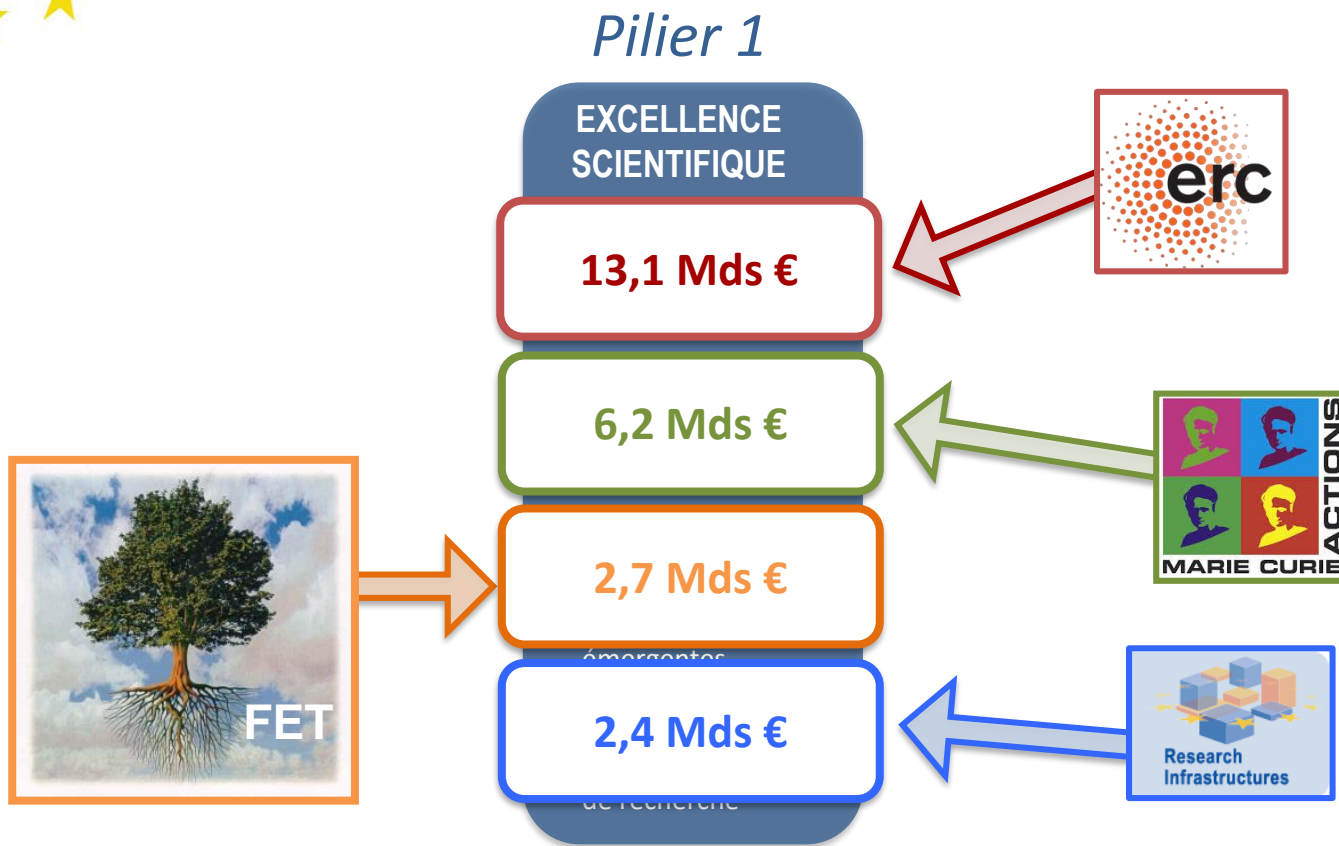
- TIC : Technologies de l'information et de la communication
- KET : Technologies clés génériques
 - Microélectronique
 - Photonique
 - Nano-bio-technologies
 - Matériaux avancés
 - Systèmes de production
- ESPACE
- Innovation dans les PME
- Accès au **financement à risque**

Pilier 3

DEFIS SOCIÉTAUX

- Santé
- Bioéconomie
- Énergie
- Transport
- Climat
- Sociétés inclusives
- Sécurité

Budget FET dans Horizon 2020



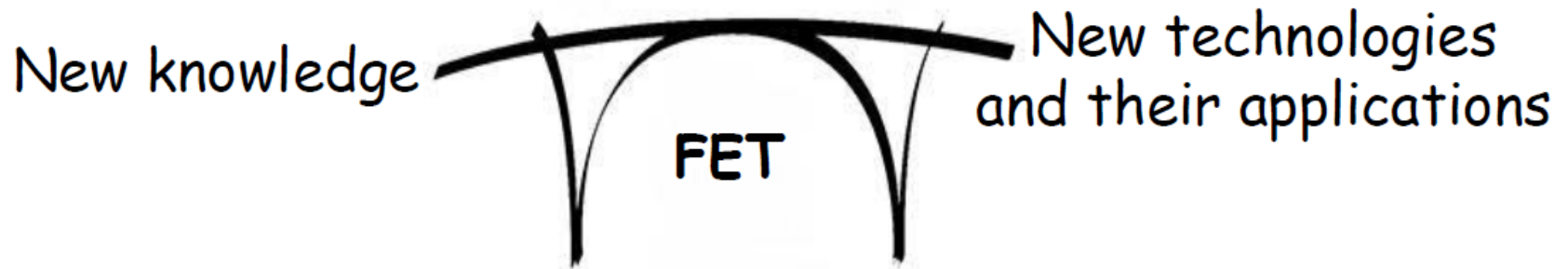
11% du budget du pilier I est dédié à FET



L'esprit "FET"

Les ambitions du programme des Technologies futures et émergentes (FET) sont de :

- ❑ **Transformer l'excellence scientifique** de l'Europe **en un avantage compétitif** en découvrant des **technologies radicalement nouvelles**
- ❑ Faire de l'Europe **l'espace le plus attractif** pour la **recherche collaborative et interdisciplinaire** dans le domaines des technologies futures et émergentes





Les types d'actions FET

- **Research and Innovation Actions (RIA)** = 2 à 7 millions d'€ /consortium
- **Coordination and Support Actions (CSA)** = projets de soutien à la recherche (analyse d'impact, organisation d'événements, mise en place de réseaux...)
 - un ou plusieurs partenaires (dont les organismes publics) selon l'appel
 - 300 à 500 k€ / consortium (sauf exception)
- **ERA-NET Cofund Actions (Cofund)** = ciblent les agences de financement nationales
- **Framework Partnership Agreement (FPA)** = ne concerne que les grandes initiatives (Flagships)

Pas d'Innovation Actions (IA) dans FET

Les instruments "FET"



Idées émergentes

Incubation

Feuilles de route

Niveau de complexité et taille du consortium



FET Open

FET Launchpad)

FET Proactive

FET Flagships

Un programme ouvert : projets collaboratifs blancs (sans contrainte thématique)

Projets : 3 M€

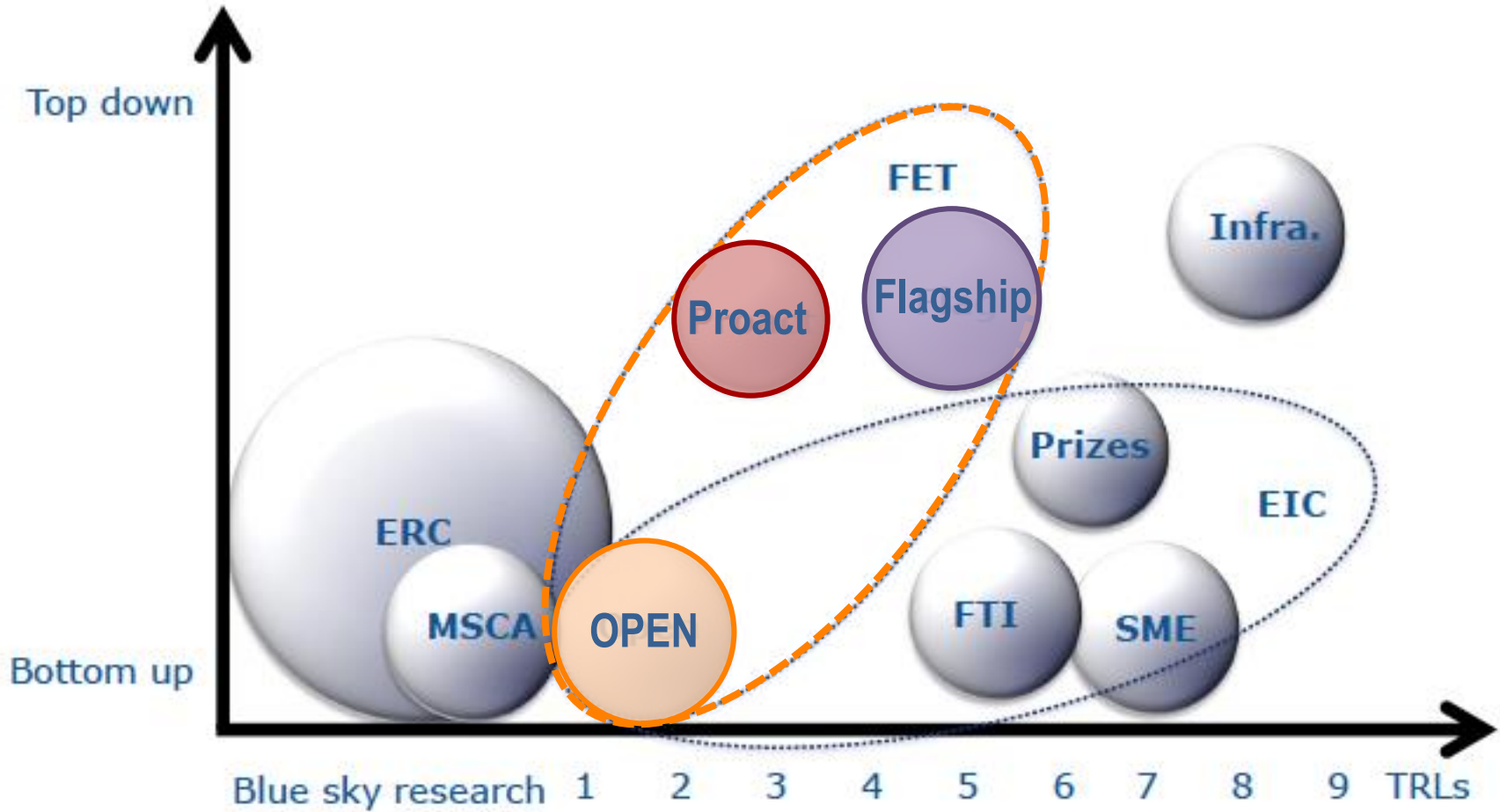
Un programme thématique : développement de communautés dans un domaine ciblé

Projets : 4-7 M €

Un programme stratégique : fédération d'acteurs autour de priorités technologiques européennes

Projets : 500 M €

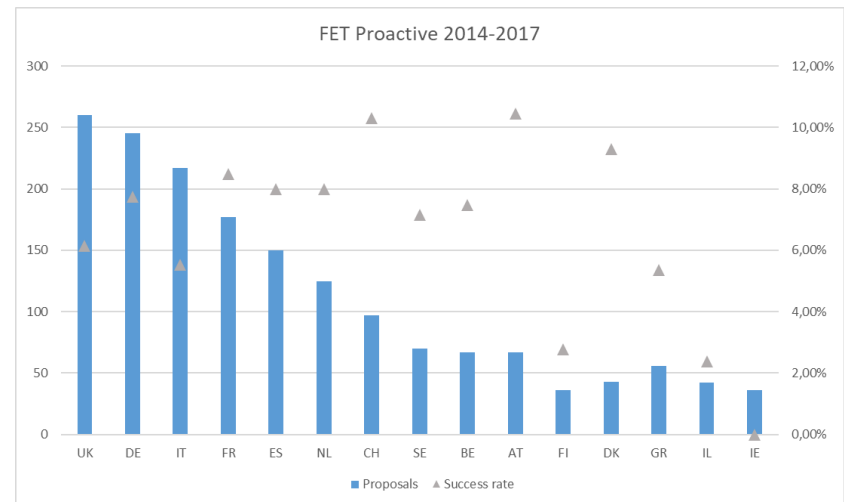
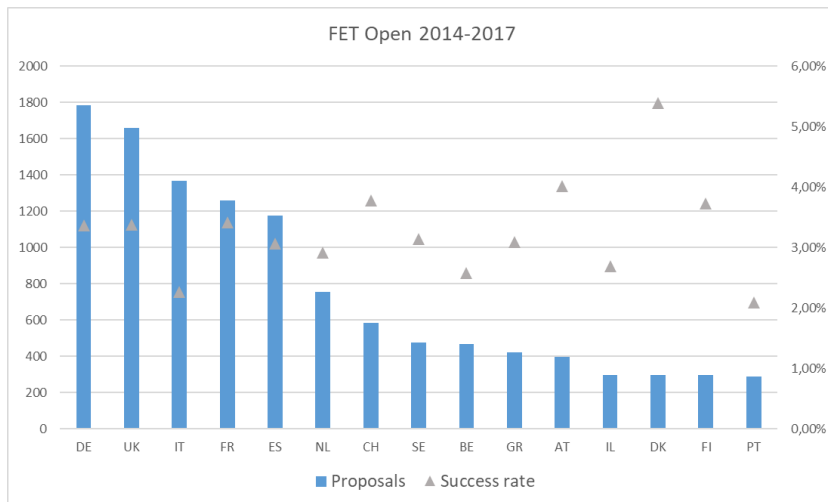
Projets FET : des TRL intermédiaires



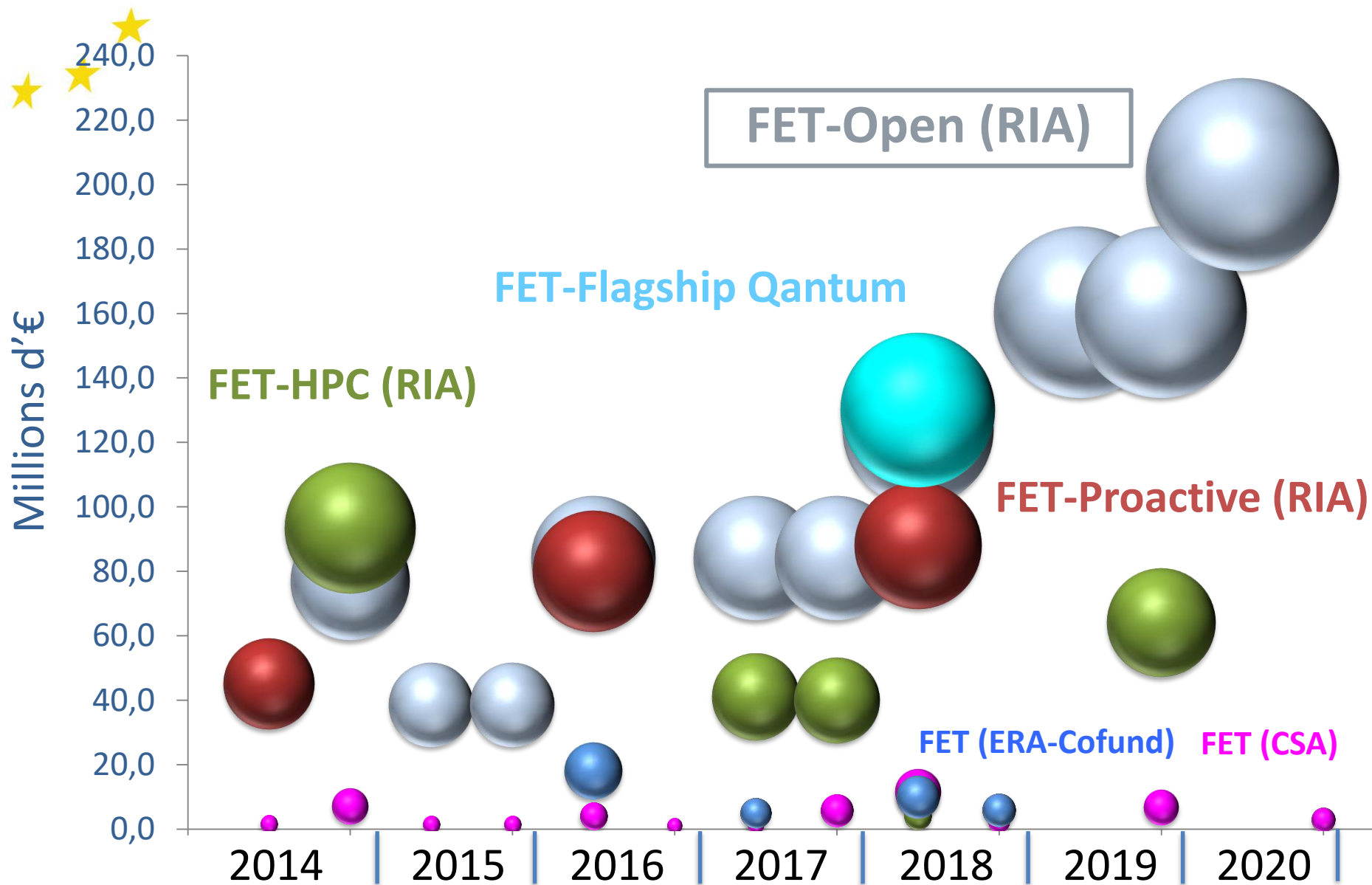
Défi pour la France : la participation

□ FET Open et FET Proactive (hors HPC)

- Taux de succès FR au moins comparable aux grands pays européens, mais...
- ... participation en retrait...
- ... ce alors que **les budgets augmentent dans le WP 2018-2020**



Budgets des appels FET 2014-2020



FET OPEN (RIA)



Idées émergentes

Incubation

Feuilles de route



FET Open

FET Proactive

FET Flagships

Un programme ouvert : projets collaboratifs blancs (sans contrainte thématique)

Un programme thématique : développement de communautés dans un domaine ciblé

Un programme stratégique : fédération d'acteurs autour de priorités technologiques européennes

Projets : 3 M€

Projets : 4-7 M€

Projets : 500 M€



FET OPEN (RIA)

- FET-Open est un **appel blanc** (sans contrainte thématique), qui vise des recherches visionnaires et prometteuses pour répondre aux défis technologiques à long terme de l'Europe : *"Bottom-up, but targeted - not blue sky research"* (TRL 1-3).
- FET-Open est un programme **ouvert** qui cible l'exploration d'idées, d'approches et de concepts nouveaux.
- Un projet FET-Open doit intégrer les notions d'**interdisciplinarité** et de **collaborations non conventionnelles**.
- Il s'agit de projets d'une durée de 3-5 ans réunissant un **consortium de taille limitée** (3 M€ / consortium).



FET Open – WP 2018-2020

- « *Cutting-edge high-risk / high-impact interdisciplinary research* »

- 3 « Gatekeepers » :
 - **Radical vision** : new technology concept that challenges current paradigms
 - *hors feuilles de route pré-existantes*

 - **Breakthrough technological target** : novel and ambitious science-to-technology breakthrough as a first proof of concept for its vision
 - *pas de recherche exploratoire sans objectif technologique précis*

 - **Ambitious interdisciplinary research** that opens up new areas of investigation
 - *pas de recherche incrémentale même si interdisciplinaire*



FET Open – WP 2018-2020

Expected Impact:

- Scientific and technological contributions to the foundation of a new future technology
- Potential for future social or economic impact or market creation.
- Building leading research and innovation capacity across Europe by involvement of key actors that can make a difference in the future, for example excellent young researchers, ambitious high-tech SMEs or first-time participants to FET under Horizon 2020⁴.

FET Open – Quel niveau de maturation ?

G. Technology readiness levels (TRL)

Where a topic description refers to a TRL, the following definitions apply, unless otherwise specified:

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL 4 – technology validated in lab
- TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- TRL 7 – system prototype demonstration in operational environment
- TRL 8 – system complete and qualified
- TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

→ **Projet FET Open**

VISION LONG-TERME

FET Open – Modalités de soumission


- Soumission en 1 étape
- Appel ouvert en continu
- Cut-off dates en général 2x/an
- **Partie B de 15 pages maximum**
- Template dédiée
- Critères d'évaluation spécifiques



H2020 Programme

- 1. Excellence**
 - 1.1 Radical vision of a science-enabled technology**
 - Describe the vision of a radically-new science-enabled technology that the project¹ would contribute towards.
 - Describe how this vision surpasses substantially any technological paradigms that currently exist or are under development.
 - Describe the overall and specific objectives for the project, which should be clear, measurable, realistic and achievable within the duration of the project. (The details of the project plan belong to the Implementation section).
 - 1.2 Science-to-technology breakthrough that addresses this vision**
 - Discuss the relevant state-of-the-art and the extent of the advance the project would provide beyond this state-of-the-art.
 - Describe the science-to-technology breakthrough, targeted by the project that would represent the first proof of concept of the envisioned technology.
 - 1.3 Interdisciplinarity and non-incrementality of the research proposed**
 - Describe the research disciplines necessary for achieving the targeted breakthrough of the project and the added value from the interdisciplinarity.
 - Explain why the proposed research is non-incremental.
 - 1.4 High risk, plausibility and flexibility of the research approach**
 - Explain how the research approach relates to the project objectives and how it is suitable to deal with the considerable science-and-technology uncertainties and appropriate for choosing alternative directions and options. (The risks and mitigation plan should be spelled out under the Implementation section).

FET OPEN : les taux de succès 2014-2017

 Cut-off	Eligible Proposals received	Above threshold proposals	Grant requested by above threshold proposals	Retained Proposals	Grant requested by retained proposals	Success rate
SEPT 2014	639	254	805 M€	24	78,1 M€	3,8%
MAR 2015	665	326	1079 M€	11	41 M€	1,7%
SEPT 2015	800	346	1203 M€	11	37,8 M€	1,4%
MAI 2016	544	272	1088 M€	22	88 M€	4,0%
JANV 2017	365	192	617 M€	26	84,75 M€	7,1%
SEPT 2017	403	?	?	~26		~6,5%

Mais augmentation du budget continue sur 2018-2020



FET Open – Cut-off dates 2018-2020

Cut-off date	Budget
16/05/2018	123,7 M€
24/01/2019	160,4 M€
18/09/2019	160,4 M€
13/05/2020	203,0 M€

Nombre de projets financés multiplié par 2 !



FET Innovation Launchpad

FETOPEN-03-2018-2019-2020 (CSA)

(depuis 2016)



FET Innovation Launchpad

Transformer les résultats des projets FET (FP7 ou H2020) en réelles innovations économiques ou sociétales

18 mois – 100K€

Commercialisation, études de marché, évaluation de la technologie, consolidation de la PI, business plan etc.

Template spécifique – proposition de 7 pages maximum

Deadline	Budget
16/10/2018	2,5 M€
08/10/2019	3,7 M€
14/10/2020	3,0 M€

FET Proactive



Idées émergentes

Incubation

Feuilles de route



FET Open
TRL : 1-3

FET Proactive

FET Flagships

Un programme ouvert : projets collaboratifs blancs (sans contrainte thématique)

Un programme thématique : développement de communautés dans un domaine ciblé

Un programme stratégique : fédération d'acteurs autour de priorités technologiques européennes

Projets : 3 M€

Projets : 4-7 M €

Projets : 500 M €



FET Proactive

Boosting emerging technologies

☐ Objectifs :

- stimuler des recherches technologiques interdisciplinaires de rupture sur des **thématiques prédéfinies** répondant aux besoins de la société et de l'industrie européennes
- Soutien à la **maturation de nouvelles communautés** de recherches ... et au delà pour que l'Europe capitalise sur ces opportunités technologiques

☐ Projets :

- 4 à 7 M€
- ≈ 7 équipes (*moyenne sur projets lauréats 2014-2017*)

☐ Modalités de candidature :

- *soumission en une étape*
- *un appel tous les 2 ans*
- *partie B de 30 pages maximum*

Thématiques des FET Proactive (RIA) : issues de consultations publiques

- Global Systems Science
- Knowing, doing and being: cognition beyond problem solving
- Quantum Simulation

WP 2014-2015

FINISHED

35 M€

- Future technologies for societal change
- Biotech for better life
- Disruptive information technologies
- New technologies for energy and functional materials

WP 2016-2017

FINISHED

80 M€

- Area 1: Artificial organs, tissues, cells and sub-cellular structures
- Area 2: Time
- Area 3: Living technologies
- Area 4: Socially interactive technologies
- Area 5: Disruptive micro-energy and storage technologies
- Area 6: Topological matter

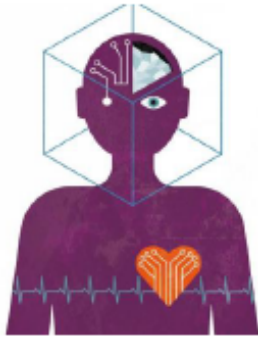
WP 2018-2020

Dead line : 22 mars 2018

88 M€

□ FETPROACT-01-2018 (RIA)

Area 1 - Artificial organs, tissues, cells and sub-cellular structures (15 M€)



Proposals should aim at engineering biological, artificial or hybrid sub-cellular systems (e.g., synapses, organelles, vesicles), highly specific cell assemblies (including microbial), tissues, organs or multi-organ systems.

- Exploit recent advances in integrative biology (including modelling and simulation) and bio-engineering
 - Combine the growing understanding of genome, proteome, metabolome and cell behaviour with strategies for the engineering and use of biological and hybrid functional constructs
- Possible long-term research targets include:
 - synthetic cell building
 - organ reproduction, replacement, control or repair
 - high-throughput organ- and body-on-chip technologies for the development of personalised treatment, drugs or vaccines
 - Ethical issues should be properly addressed

□ FETPROACT-01-2018 (RIA)

Area 2 – Time (13 M€)

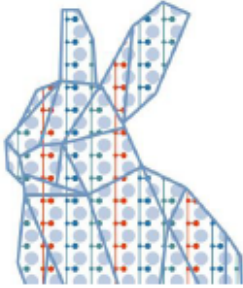


This proactive is about new technological possibilities inspired by notions of time, not seen as a given and singular background against which things unfold, but rather as a resource that can be experienced and used in different ways.

- Possible research areas proposals could address include:
 - technologies for subjective time awareness (and its neural basis) and distortion
 - the role of time in processes like aging, healing, learning or evolution and how this can be influenced
 - understanding non-linear temporality in complex systems
- New ways to represent, modulate, duplicate or experience and use time could come from technologies in, for instance:
 - extreme electronics/photonics
 - data-streams analytics
 - time aware artificial intelligence
 - virtual and augmented reality
 - bio-engineering or neuroprosthetics

□ FETPROACT-01-2018 (RIA)

Area 3 – Living technologies (20 M€)



Proposals should develop new functional biological, technological or hybrid artefacts with features of living systems such as physical autonomy, growth, interaction and enaction, adaptation and evolution. This could involve, for example:

- hybrid materials and systems with programmable features of shape, structure, functionality and evolvability
 - possibly starting from naturally existing complexes
 - research on multi-level mathematics and complexity of living systems or the boundaries/characteristics of life could be a part of the work proposed
- Proposals could use relevant results from evolutionary biology, ethology, micro-, plant- and animal biology, synthetic biology, systems biology and /or chemical biology
 - Ethical issues should be addressed



□ FETPROACT-01-2018 (RIA)

Area 4 – Socially interactive technologies (15 M€)

This addresses technologies to support deeper social interaction between people in groups which range in size from pairs to crowds



- This new socially interactive media should facilitate building trust and understanding, social integration, engagement, collaboration, learning, creativity, entertainment, education and wellbeing
- Proposals should include novel combinations of social sciences and humanities with neuroscience, engineering and computing to develop new experimental tools and paradigms
 - These tools could take into account, for example, context, culture, emotion, and factors of embodiment and cognition
- Ethical issues and the gender dimension should be addressed





□ FETPROACT-01-2018 (RIA)

Area 5 – Disruptive micro-energy and storage technologies (15 M€)



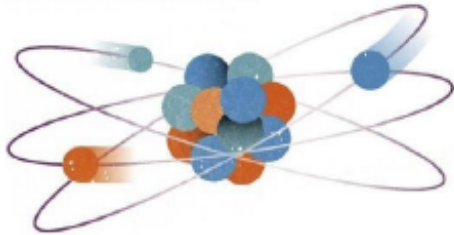
Proposals should address novel technologies for local (close to where needed) energy generation, capture or storage

- This proactive covers:
 - Technologies for micro-energy or nano-scale energy generation, transfer, dissipation and conversion
 - bio-inspired energy technologies
 - the use of soft or intelligent materials
 - new types of batteries
- Smart integration of novel energy sources within hybrid/distributed energy systems can be addressed.
- Sustainability and environmental impact issues should be addressed.



□ FETPROACT-01-2018 (RIA)

Area 6 – Topological Matter (10 M€)



This topic addresses new materials exploiting interactions between quantum effects and topology

- Topological insulators already studied
 - possible applications in spintronics
- Other material properties can be addressed
 - applications in photonics, mechanics (eg elasticity, acoustics), superconductivity and plasmas are possible examples
- Proposals should go beyond pure physics and mathematics
 - Prototypes should be built, tested and benchmarked
- Methodology should include an engineering approach for using the quantum effects of wave-matter interactions in novel components



FET Proactive 2018-2020 (autres)

□ **FETPROACT-02-2018** : FET Community building in Neuromorphic Computing (NMC) Technologies (**CSA**)

- *Présentation de NMC, sensibilisation à l'impact, réseautage entre recherche & industrie...*
- *Budget : 0,5 M€, dead line : 22 mars 2018*

□ **FETPROACT-03-2018**: FET ERA-NET (**Cofund**)

- *Agences de financement de la recherche uniquement*
- *Dans la prolongation de CHIST-ERA*
- *Budget : 6 M€, dead line : 18 décembre 2018*

FET HPC



Idées émergentes

Incubation

Feuilles de route

FET Open

TRL : 1-3

HPC

FET Proactive

FET Flagships

Un programme ouvert : projets collaboratifs blancs (sans contrainte thématique)

Projets : 3 M€

Un programme thématique : High Performance Computing

Projets : 5-10 M €

Un programme stratégique : fédération d'acteurs autour de priorités technologiques européennes

Projets : 500 M €



FET HPC – HIGH PERFORMANCE COMPUTING

- ❑ Programme dédié au **calcul haute performance**
- ❑ Budget propre, en complément de la partie HPC du programme Infrastructure et du Pilier 2
- ❑ Mise en œuvre de l'agenda stratégique européen piloté par la **plateforme ETP4HPC** (European Technology Platform for HPC)
<http://www.etp4hpc.eu/>
- ❑ Focus FET sur le **développement des technologies exascale**
- ❑ Acteurs récurrents : Bull/Atos, Intel, CEA, Barcelona Supercomputing Centre...



FET HPC – HIGH PERFORMANCE COMPUTING

☐ FETHPC-01-2018 (RIA) : International Cooperation on HPC

- Partenariats stratégiques HPC avec le **Brésil** et le **Mexique** (les partenaires mexicains et brésiliens ne sont pas financés par l'UE mais par des financements propres issus d'accords bilatéraux)
- 2 M€ par projet (1 projet Brésil + 1 projet Mexique)
- Dead line : 15 mai 2018

☐ FETHPC-02-2019 (RIA et CSA) : Extreme scale computing technologies, methods and algorithms for key applications and support to the HPC ecosystem

- a) System software and management
 - b) Programming environments
 - c) I/O and storage environment for data-centric extreme scale computing
 - d) Data-intensive supercomputing and emerging HPC use modes
 - e) Mathematical methods and algorithms
- 64 M€ (RIA) + 4 M€ (CSA)
 - Dead line : 24 septembre 2019

Les FET Flagships



Idées émergentes

Incubation

Feuilles de route



FET Open

TRL : 1-3

FET Proactive

FET Flagships

Un programme **ouvert** : projets collaboratifs blancs (sans contrainte thématique)

Un programme **thématique** : développement de communautés dans un domaine ciblé

Un programme **stratégique** : fédération d'acteurs autour de priorités technologiques européennes

Projets : 3 M€

Projets : 4-7 M€

Projets : 500 M€



FET Flagship Concept

Flagships are visionary, **science-driven**, large-scale research initiatives addressing **grand S&T challenges**

10-year initiatives & **50 M€ per year**

Flagships bring together academia and industry across various disciplines, sharing a unifying goal and an ambitious research roadmap on how to achieve it

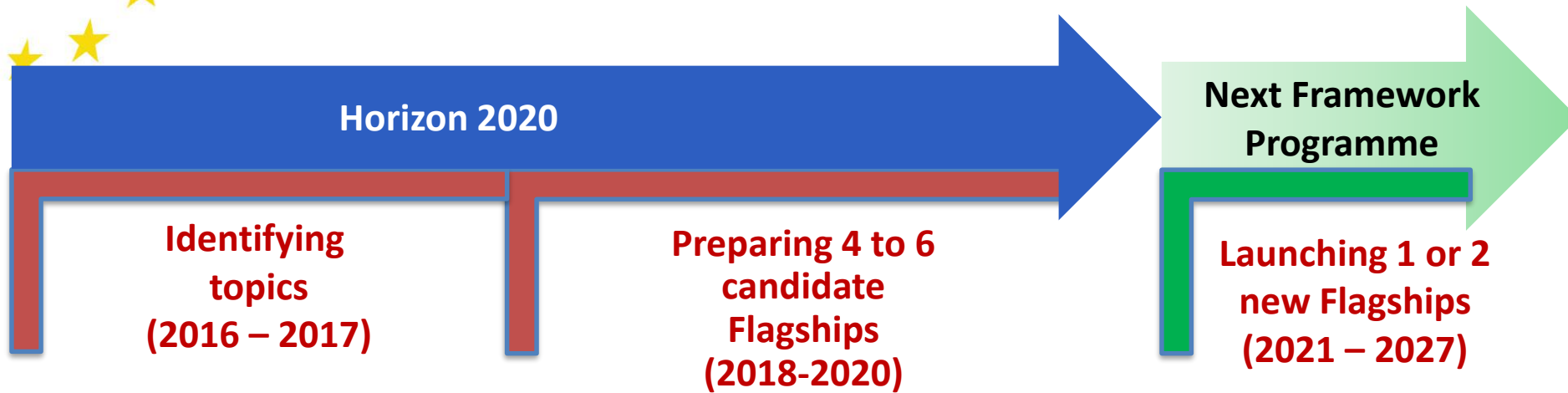
The two ongoing Flagships are ***Graphene*** and ***Human Brain Project***

<https://graphene-flagship.eu/>

<https://www.humanbrainproject.eu/en/>

One flagship in the ramp-up phase on quantum technology

Timeline for New Flagships



Open Consultation
24 ideas

Consultation Round-table Commissioner
GH Oettinger

FET WP 18-20 Call for preparatory actions

Flagships Preparatory phase
~12 months

Flagships Operational phase



2016

2017

2018

2019

2020

2021

2027



Areas and Topics

Based on the outcome of the round table with MS, AC and stakeholders (15 December 2016) and on discussions in Board of Funders (23 January 2017)

ICT and Connected Society

- Soft materials and nanoscale engineering
- Interfaces, robotics and artificial intelligence
- ICT for social sciences and humanities

Health and Life Sciences

- Disruptive ICT to revolutionise healthcare
- Understanding life by exploring the genome and the cell

Energy, Environment and Climate Change

- Earth, climate change and natural resources
- Radically new energy production systems

Up to 6 preparatory actions (1 or 2 per area) aiming at developing a strategic research roadmap based on a shared and consolidated vision, with support from industry as well as governance structure, and approach to education and responsible research and innovation

Deadlines : 20 février 2018 (étape 1) & 18 septembre 2018 (étape 2)

Budget : 6 M€

Projets de 1 M€ sur 1 an



Flagship on Quantum Technologies (RIA)

Scope

Proposals are expected to address a mix of quantum technology challenges addressing one or more of the following areas, integrating different aspects like physics, engineering, computer science, theory, algorithms, software, manufacturing, control, infrastructures, etc. Each activity should clearly move the technology up the TRL scale²⁰. **For areas a. to d., proposals can integrate various activities covering the whole value chain, from fundamental to applied research,** and with other types of activity, including demonstrators, etc., as appropriate

- a. Quantum Communication
 - b. Quantum Computing Systems
 - c. Quantum Simulation
 - d. Quantum Metrology and Sensing
 - e. Fundamental Science
- Deadline : 20 février 2018
 - Budget **130 M€** dont 20 M€ sur e (*Fundamental Science*)
 - Projet 10 M€ pour a-d et 2 à 3 M€ pour e
 - Projets de 3 ans



Flagship on Quantum Technologies (CSA)

Scope

Proposals should aim at coordinating the relevant stakeholders, notably academia, RTOs and industry participating in the Flagship initiative. In particular, it is expected to establish a communication platform, facilitate dialogue, promote the objectives of the Flagship and monitor the progress, support the governance structure, organize outreach events (including addressing the impact of technology development on economy and society), identify training and education needs and promote European curricula in quantum engineering, identify and coordinate relevant standardisation, IPR actions, and international collaboration and help networking of respective national and international activities in the field. The action will also identify, together with the community, benchmarks for all communication/computing/simulation platforms selected under areas a. to c. of the Research and Innovation Actions described under item A. above.

It is expected that such an activity is driven by the relevant actors of the field including academia, RTOs and industry.

- Deadline : 20 février 2018
- Budget 2 M€



LES ERA-NETs FET



ERA-NETs FET

- FLAG-ERA – www.flagera.eu
- QuantERA – www.quantera.eu
- CHIST-ERA – www.chistera.eu

L'ANR est au premier plan des 3 ERA-NETs FET :

- Coordination de CHIST-ERA et FLAG-ERA
- Dans QuantERA, l'ANR prépare et met en œuvre l'appel de QuantERA (approx. 30 M€)
- CHIST-ERA, FLAG-ERA, QuantERA sont des ERA-NETs « FET »

L'ERA-NET FLAG-ERA



□ FLAG-ERA is

- The **network of National and Regional Funding Organisations** (NRFOs) in European member and associated states supporting the FET Flagships

□ Main goals

- Set up, together with the two Flagship Core Projects and the EC, the **mechanisms** for using the existing national, regional and transnational calls in the framework of the Flagships
- Launch **dedicated calls** such as the FLAG-ERA JTC 2017

L'ERA-NET QuantERA



- ❑ Réseau européen dédié aux technologies quantiques

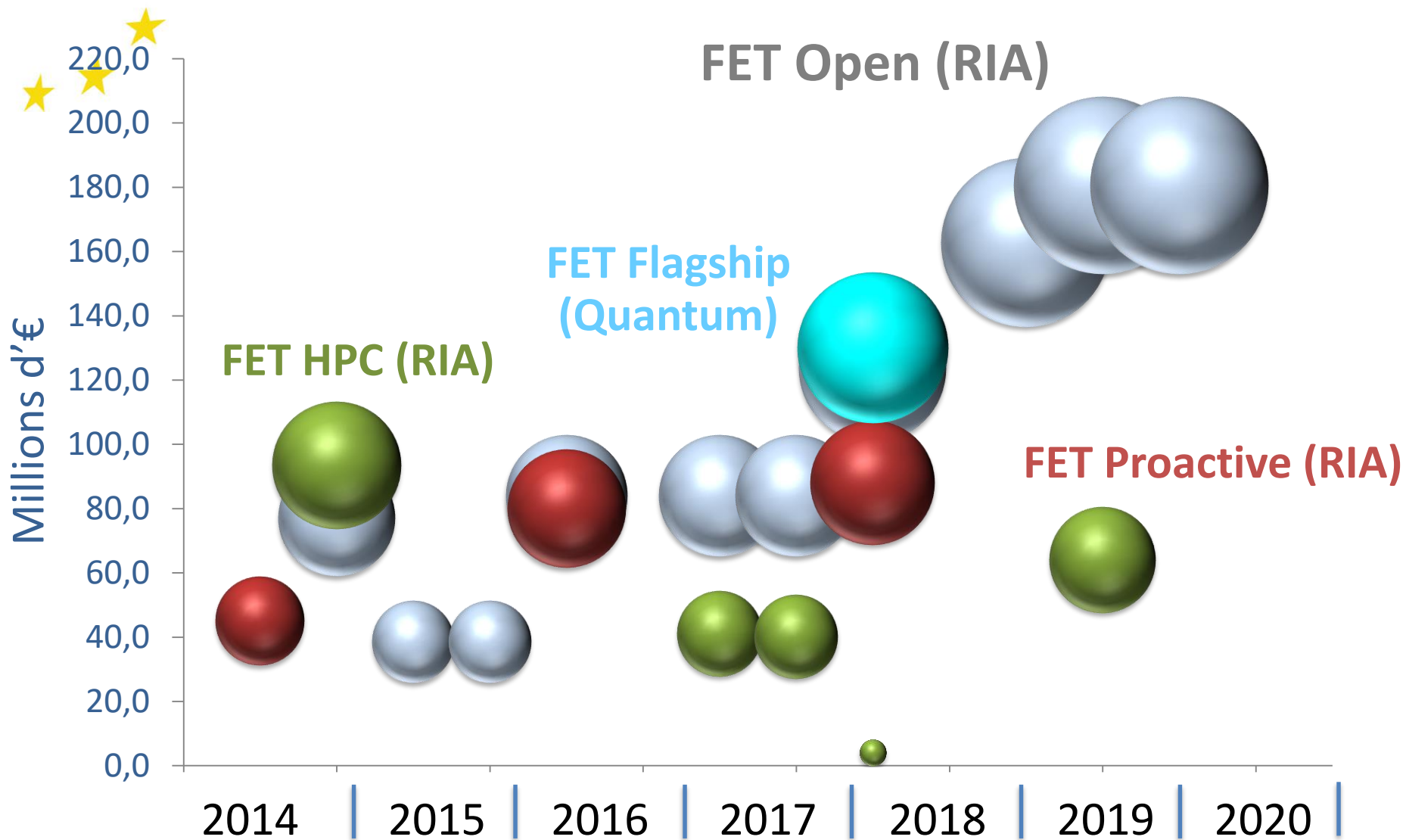
- ❑ Appel à projets 2017
 - Thématiques : technologies quantiques pour la communication, la simulation, la métrologie et les capteurs, le calcul informatique, les sciences de l'information, nouvelles idées d'application
 - Calendrier : résultats en novembre 2017, démarrage des projets début 2018
 - Budget : 30 M€


L'ERA-NET CHIST-ERA



- ❑ The FET Proactive ERA-NET: Supporting emerging topics
- ❑ Yearly cycle: Two call topics per year
- ❑ 7 calls organised (Calls 2010-2016), 14 topics covered, 54 projects
- ❑ Elaborate topic selection process: Open to new ideas, selection based on well-defined criteria and thorough discussion
- ❑ Call 2017:
 - Topic 1: **Object recognition and manipulation by robots: Data sharing and experiment reproducibility (ORMR)**
 - Topic 2: **Big data and process modelling for smart industry (BDSI)**
 - Deadline: **11/01/2018**

Résumé (1/2) : Budgets 2014-2020





Résumé (2/2) : Messages

- ❑ **FET transforme l'excellence scientifique de l'Europe en opportunités technologiques**, en croisant les disciplines et en associant de nouveaux acteurs (jeunes, entreprises, ...)

- ❑ La France participe moins que les autres grands pays européens, ce alors que le taux de succès de la France est compétitif et que le budget FET est en forte augmentation → **Il faut remobiliser les chercheurs Français**

- ❑ **Échéances immédiates :**
 - Appel dans l'esprit FET Proactive de l'ERA-NET CHIST-ERA (www.chistera.eu) : 11/01/2018
 - Appel à CSA pour le montage de projets de Flagship (6 CSA de 1 M€ de 1 an) : 20/02/2018
 - 1^{er} appel du Flagship « Technologies Quantiques » (130 M€) : 20/02/2018
 - Appel FET Proactive (88 M€) : 22/03/2018
 - Appel FET Open (120 M€) : 16/05/2018

- ❑ **Actions du PCN FET :**
 - [Après-midi Lauréats-Candidats FET Flagships](#) le 21/12/2017
 - Journée Lauréats-Candidats FET Open en février 2018 (date à définir)
 - Le PCN se déplace en région : Nous sommes à votre disposition
 - Le PCN maintient à jour une mailing liste pour chargés Europe pour une information ciblée



Liens utiles

Chaîne Youtube des projets FET :

https://www.youtube.com/playlist?list=PLyMUk47rPuqq1BjtqghimG-X8c8kdqF_S

Horizon 2020 FET Open in 2014-2016 : State of Play

<http://ec.europa.eu/programmes/horizon2020/en/news/horizon-2020-fet-open-2014-2016-state-play>

Les projets FET sur Cordis :

http://cordis.europa.eu/projects/result_fr?q=programme/code%3D%27H2020-EU.1.2.%27%20AND%20contenttype%3D%27project%27

Report on the need to integrate social sciences and humanities with science and engineering in Horizon 2020 :

<http://ec.europa.eu/programmes/horizon2020/en/news/report-need-integrate-social-sciences-and-humanities-science-and-engineering-horizon-2020>