European Commission

HORIZON 2020
PROPOSAL EVALUATION

HORIZON 2020

FET

Future and Emerging Technologies

FET in Horizon 2020

Excellent Science pillar in H2020

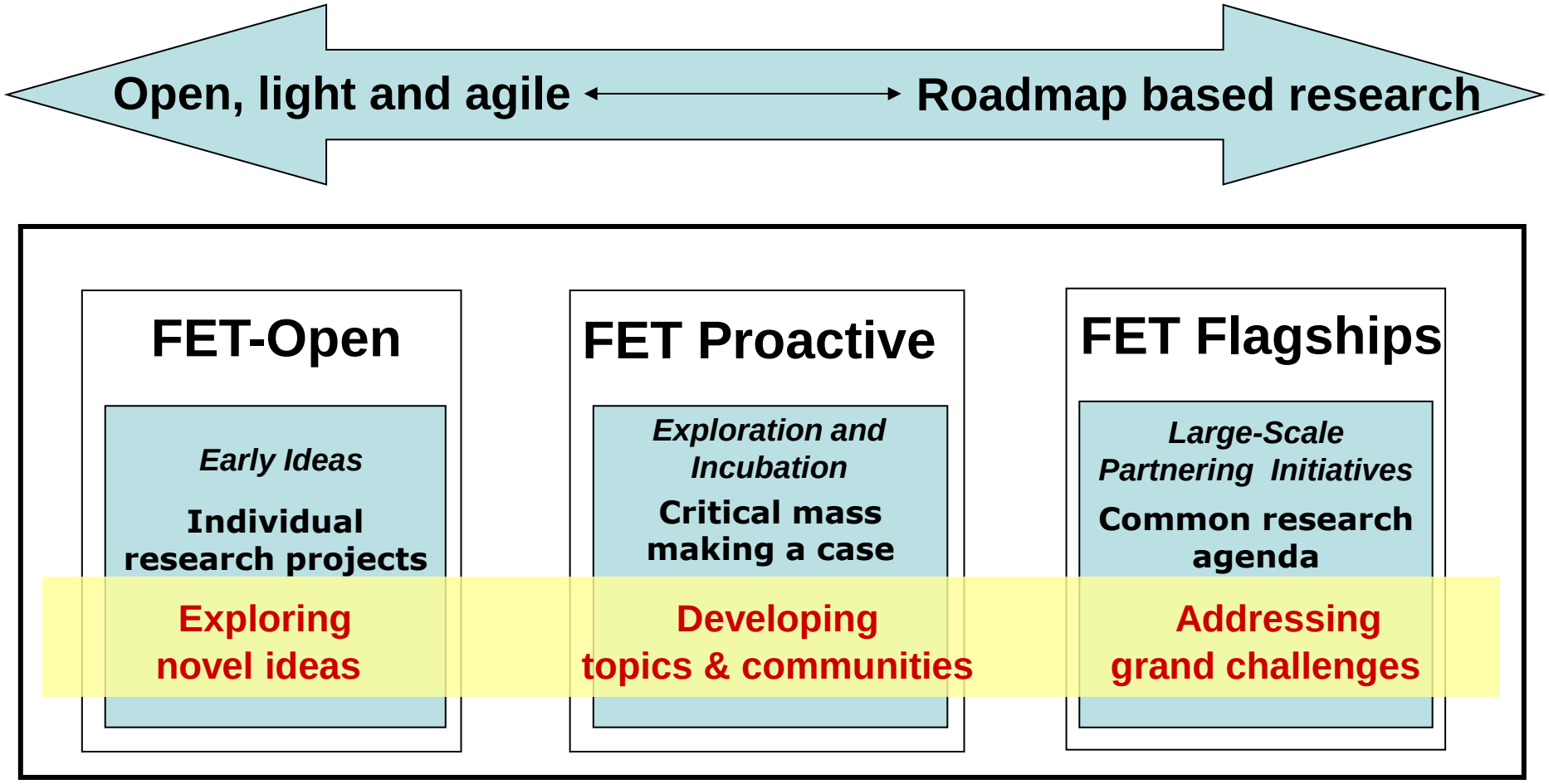
- European Research Council
- Marie Skłodowska-Curie actions
- **Future and Emerging Technologies**
- Research infrastructures programme

"Future and emerging technologies shall support collaborative research in order to extend Europe's capacity for advanced and paradigm-changing innovation."

HORIZON 2020 - THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION (2014-2020)

Pathfinding Europe's technological future(s)

The power of FET complementary schemes



FET actions

Under Horizon 2020, FET actions have been allocated a provisional budget of 2 696 million euro.

The FET programme has three complementary lines of action to address different methodologies and scales, from new ideas to long-term challenges:

- **FET Open funds projects on new ideas for radically new future technologies, at an early stage when there are few researchers working on a project topic. This can involve a wide range of new technological possibilities, inspired by cutting-edge science, unconventional collaborations or new research and innovation practices.**
- **FET Proactive nurtures emerging themes, seeking to establish a critical mass of European researchers in a number of promising exploratory research topics. This supports areas that are not yet ready for inclusion in industry research roadmaps, with the aim of building up and structuring new interdisciplinary research communities.**
- **FET Flagships are 1-billion, 10-years initiatives where hundreds of excellent European researchers unite forces to focus on solving an ambitious scientific and technological challenge, like understanding the Human Brain or developing the new materials of the future, such as Graphene.**

Calls and proposals

- **Calls are challenge-based, and open to innovative proposals**
  - Calls are less prescriptive - do not outline the expected solutions to the problem, nor the approach to be taken to solve it
  - Calls/topics descriptions allow plenty of scope for applicants to propose innovative solutions of their own choice
- **Greater emphasis on impact through *'Expected impact statements*' in the Work Programme**
  - Applicants asked to explain how their work will bring about described impacts
  - During the evaluation, you are asked to assess this potential contribution
- **More emphasis on innovation**
  - Horizon 2020 supports all stages in the research and innovation chain including non-technological, social innovation and activities closer to the market
- **Proposals may bring together different disciplines, sectors and actors to tackle specific challenges**
  - This FPA "must include manufacturers of microelectronic components"
  - It may include research institutes, universities, foundations, SMEs etc.

Cross-cutting issues

Cross-cutting issues integrated in the work programme (WP)

- **Social Sciences and Humanities (SSH)** integrated across all Horizon 2020 activities
- **Gender dimension in the content of R&I** - question on the relevance of sex/gender analysis is included in proposal templates
- **International cooperation:** The strategic approach consists of a general opening of the WP and targeted activities across all relevant Horizon 2020 parts
- **Other cross-cutting issues may also be included in the WP** Responsible Research and Innovation (RRI) including science education, open access to scientific publications, ethics…; standardisation; climate change and sustainable development …

FET calls 2018-2020

Call - FET Open – Novel ideas for radically new technologies

FETOPEN-01-2018-2019-2020: FET-Open Challenging Current Thinking
FETOPEN-02-2018: FET-Open Coordination and Support Actions
FETOPEN-03-2018-2019-2020: FET Innovation Launchpad

Call - FET Proactive – Boosting emerging technologies

FETPROACT-01-2018: FET Proactive: emerging paradigms and communities
FETPROACT-02-2018: Community building in Neuromorphic Computing Technologies
FETPROACT-03-2018: FET ERA-NET Cofund

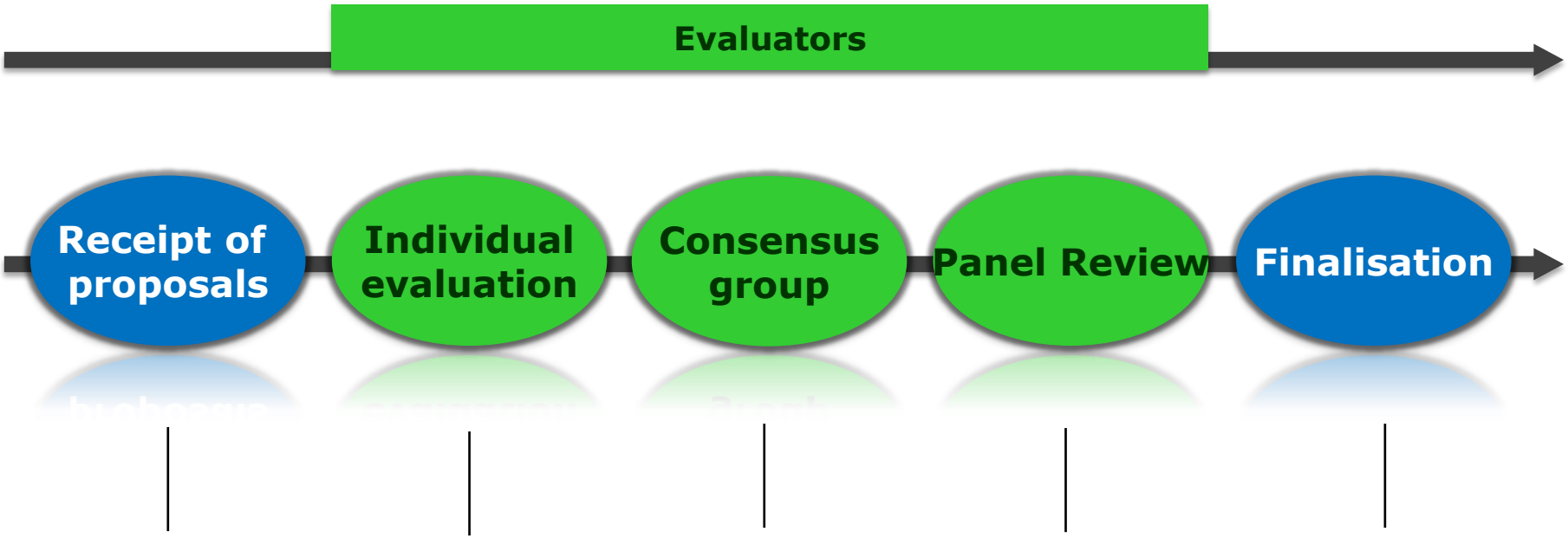
Call - FET Proactive – High Performance Computing

FETHPC-01-2018: International Cooperation on HPC
FETHPC-02-2019: Extreme scale computing technologies, methods and algorithms for key applications and support to the HPC ecosysten

Call - FET FLAGSHIPS – Tackling grand interdisciplinary science and technology challenges

FETFLAG-01-2018: Preparatory Actions for new FET Flagships
FETFLAG-02-2018: ERA-NET Cofund for FET Flagships
FETFLAG-03-2018: FET Flagship on Quantum Technologies

Overview of the Evaluation Process



Admissibility, eligibility checks and additional requirements

- **Admissibility is checked by the Commission:**
  - Readable, accessible and printable
  - Completeness of proposal, presence of all requested forms
  - Inclusion of a plan for exploitation and dissemination of results
- **Eligibility checked by the Commission - however, if you spot an issue relating to eligibility, please inform the Commission**
  - Minimum number of independent partners as set out in the call conditions
  - Other criteria may apply on a call-by-call basis as set out in the call conditions
- **"Out of scope" – content of a proposal corresponds, wholly or in part, to the description of the call or topic**
  - A proposal will only be deemed ineligible in clear-cut cases, where there is no obvious link between proposal and call topic

Countries whose entities are eligible for funding

- Member States of the European Union, including their overseas departments and outermost regions.
- Associated Countries – Iceland, Norway, Albania, Bosnia and Herzegovina, FYRM, Montenegro, Serbia, Turkey, Israel, Moldova, Switzerland, Faroe Islands, Ukraine, Tunisia, Georgia, Armenia
- Third Countries – see the 'Annex A - List of countries, and applicable rules for funding' for the list of third countries that are eligible for funding.
- Exceptionally, other countries if:
  - Bilateral agreement e.g. EU-US/NIH arrangement
  - Identified in the Work Programme
  - Deemed essential for carrying out the action.

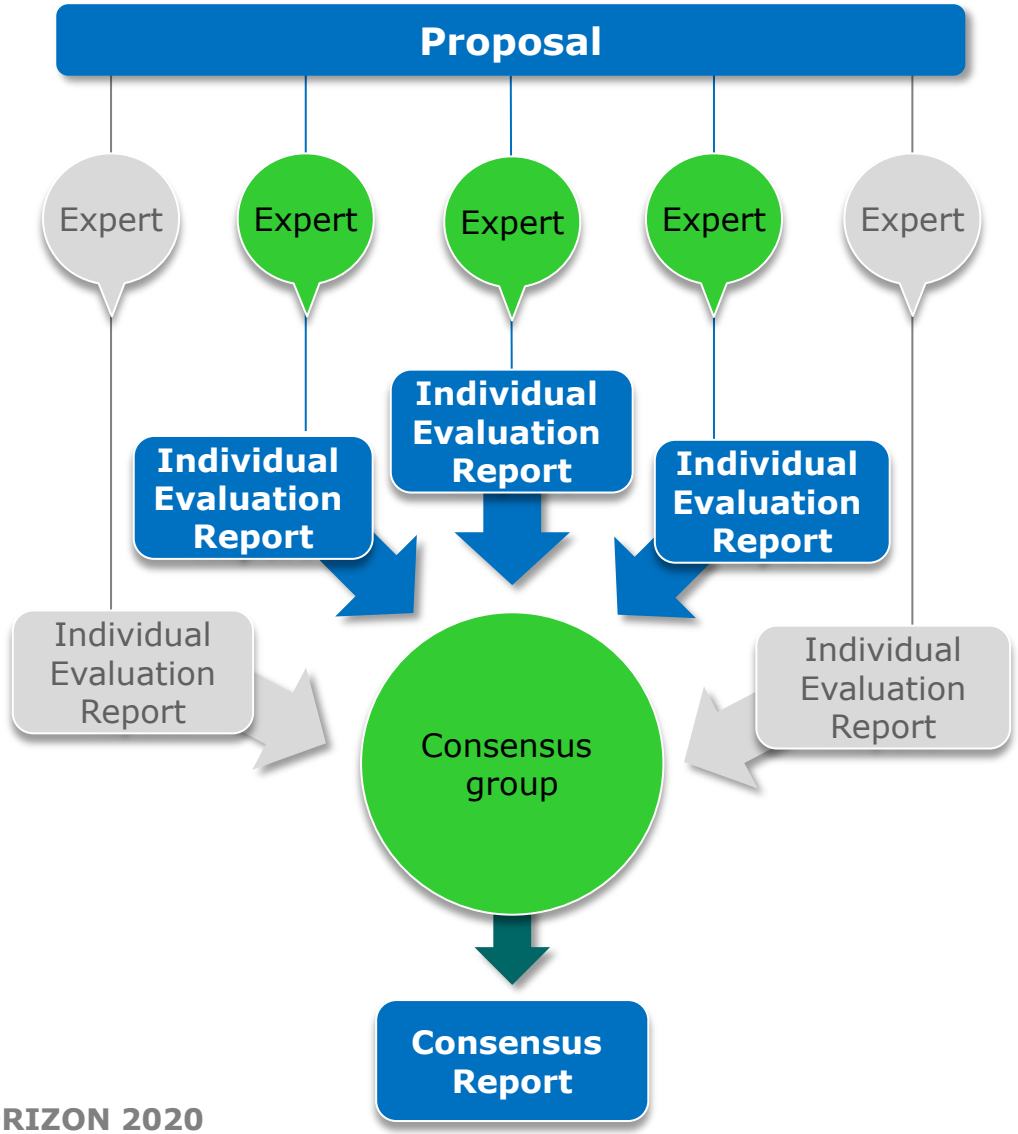
Evaluation criteria

- **There are three evaluation criteria for full proposals:**
  1. Excellence (relevant to the description of the call or topic)
  2. Impact (addressing the Expected Impact statement in the WP)
  3. Quality and efficiency of the implementation
- **The criteria are adapted to each type of action, as specified in the WP (please see slides further down for details)**

Interpretation of the scores

0	The proposal **fails to address the criterion** or cannot be assessed due to missing or incomplete information.
1	**Poor.** The criterion is inadequately addressed, or there are serious inherent weaknesses.
2	**Fair.** The proposal broadly addresses the criterion, but there are significant weaknesses.
3	**Good.** The proposal addresses the criterion well, but a number of shortcomings are present.
4	**Very Good.** The proposal addresses the criterion very well, but a small number of shortcomings are present.
5	**Excellent.** The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Evaluation Process



Eligible proposal

Minimum 3 experts …
but can be more

Individual evaluation

Consensus

Proposal evaluation (1)

A standard H2020 evaluation splits into 5 steps:

1. Admissibility and eligibility check:

- *Commission services check whether the proposal is admissible (readable and complete) and eligible (in scope of the call / minimum number of partners are present).*
- *Commission staff assign 3 or more external experts to each proposal.*

2. Individual evaluation:

- *The experts get on-line briefings on the evaluation procedures and the content of 'their' topic.*
- *Experts assess the quality of the proposals assigned to them against 3 criteria: 'Excellence', 'Impact' and 'Implementation'. Experts do this without getting in touch with each other. This step is usually done 'remotely', i.e. at the experts' places of living or working.*
- *The outcome of the individual evaluation is one 'Individual Evaluation Report (IER)' per proposal and evaluator.*

Proposal evaluation (2)

3. Consensus meeting

- *When all individual assessments are done, the experts congregate in Brussels or Luxemburg (or, in less frequent cases, run the meeting remotely and with IT support)*
- *After a live briefing, the experts assigned to a particular proposal meet in a face-to-face meeting to find a consensual view on the proposal's quality. These groups are called consensus groups. They are supported by a note taker ('Recorder') and one Commission staff ('PO – Project Officer'). The PO runs the meeting.*
- *Recorder and PO refrain from making comments on the proposal's quality.*
- *The outcome of the Consensus meeting is the 'Consensus Report (CR)' . It is drafted by the Recorder and needs to get approved by all three evaluators plus the PO*

Proposal evaluation (3)

4. Panel review

- *When all consensus meetings are done, all experts congregate and form the Panel.*
- *The panel compares the CRs to make sure that all proposals were evaluated against the same standards of judgment ('calibration exercise').*
- *For all proposals, the panel agrees on final comments and scores. In most cases, it just confirms the resultof the consensus meeting. But it can change comments and scores. Either way, the panel agrees on one "Evaluation Summary Report (ESR)' per proposal.*
- *Proposals considered for funding must pass a threshold for each individual criterion and a total-score threshold.*
- *The panel sets priority among above-threshold proposals with identical total scores.*
- *Via ESR (= final score) agreement and priority setting, the panels builds up a ranked list of the proposals based on their total scores. This list is the panel's key outcome. It is strictly respected by the Commission in the funding decisions.*
- The *panel also writes a Panel Report.*
- *The panel normally concentrates its work on the proposals above all thresholds.*

Proposal evaluation (4)

5. Finalisation tasks and preparation of evaluation results' sending

- *After the scientific evaluation, proposals considered for funding undergo an ethics review to make sure they comply with any legislation or ethics standards in place and do respect research integrity (no plagiarism, result fabrication etc.). The ethics review is done either by external ethics experts or by trained in-house staff.*

- *Commission staff prepare the reporting to their hierarchy as well as to the Member States and H2020 Associated Countries, and do a final quality check on the ESRs.*

- *Commission staff also prepare the result letters, which inform the proposers about their proposal's result. Up to the point where the available budget is consumed, the highest-scoring proposals are invited for grant (= research contract) preparation. A small number of proposals is put on a reserve list, all the proposals, even above-threshold ones, get a negative reply.*

- *Legally, Commission services have 5 months for completing the evaluation. For ICT calls, the average is below 4 months.*

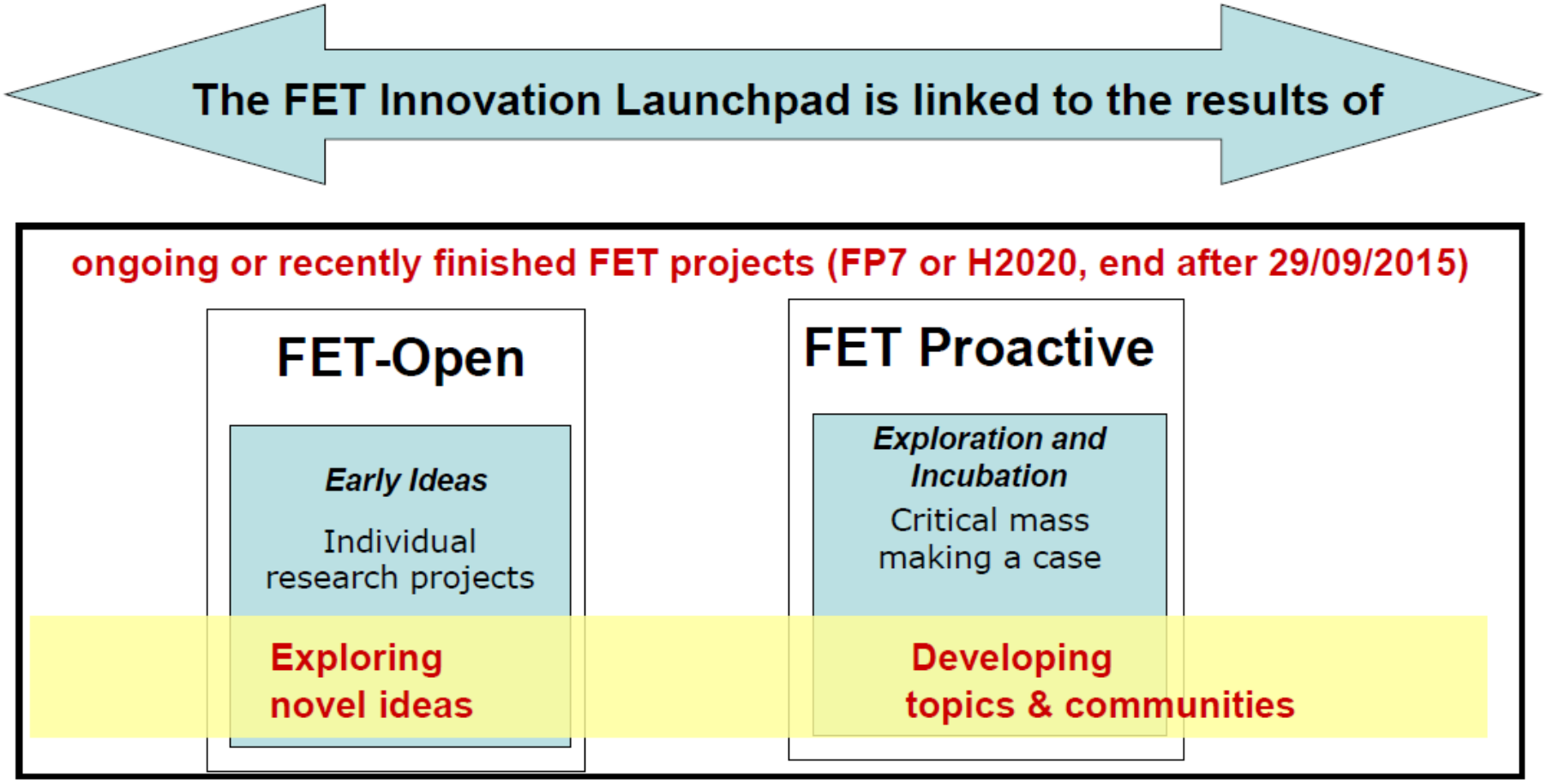
FET-Open Innovation Launchpad

- This topic aims at funding further innovation related work (i.e. activities which were not scheduled to be funded by the original project) to verify and substantiate the innovation potential of ideas arising from FET funded projects and to support the next steps in turning them into a genuine social or economic innovation.

- *Coordination and Support Action*
- *single step submission, '1+7' pages*

- *Inspired by the successful ERC Proof-of-Concept (PoC) scheme*

FET-Open Innovation Launchpad



FET-Open Innovation Launchpad

- **Short and focused actions (18 months indicative)**
- **Early innovation from an ongoing or recently finished FET project**
  - Ongoing or maximum 1 year from end-date of originating project to call deadline
  - FP7 and H2020, any FET-funded project
  - The link with the originating project is to be substantiated in the proposal
- **No additional S&T research**
- **No actions that are/were foreseen in originating project**
- **No direct link needed with originating consortium**
- **Single participant possibility**
- **Assurance on necessary rights and agreement to be stated**
- **No prescribed actions but 'fitness for purpose'**
- **Complementary to ODI and SME schemes**

FET-Open Innovation Launchpad

- **No prescribed actions but 'fitness for purpose' will be evaluated, for example**
  - the definition of a commercialisation process to be followed,
  - market and competitiveness analysis,
  - technology assessment,
  - consolidation of intellectual property rights and strategy,
  - scenario and business case development,
  - developing contacts and support relevant activities with for instance, industrial transfer partners, potential licence-takers, investors, societal organisations or potential end users

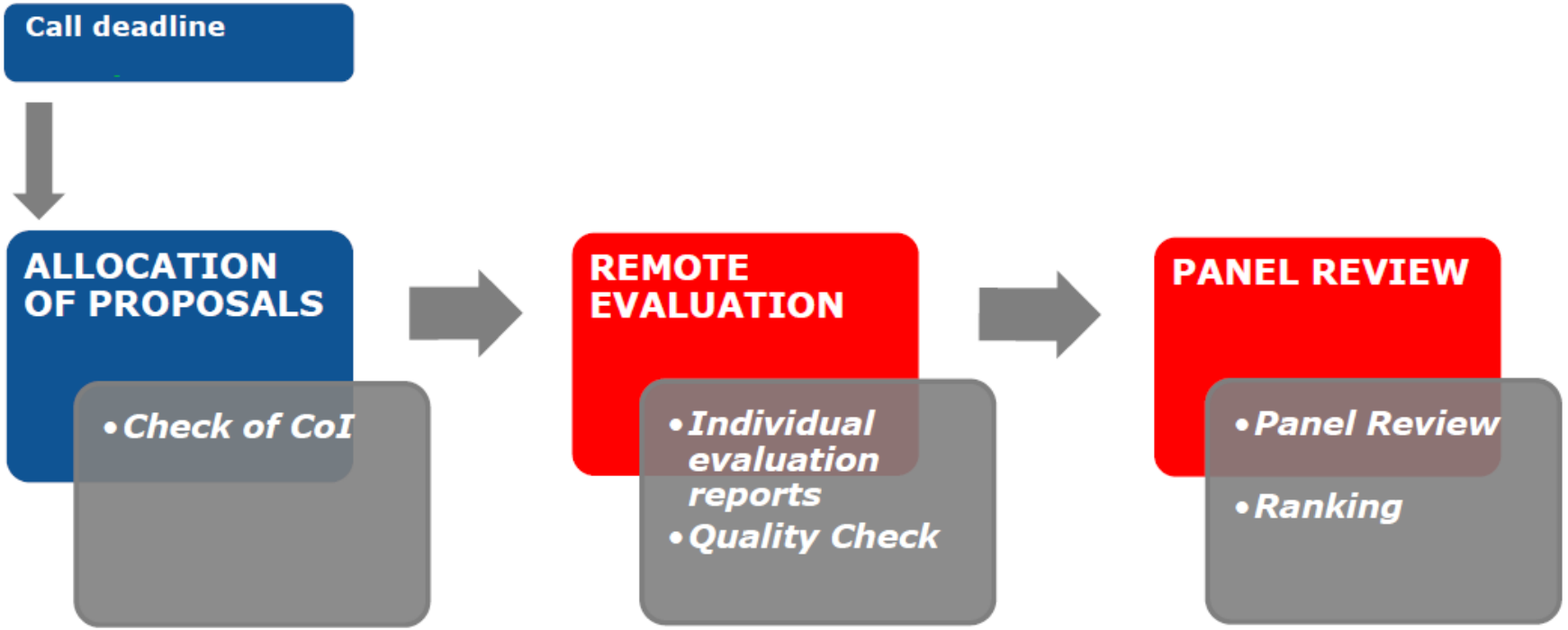
- **Complementary to ODI and SME schemes**

FET-Open Innovation Launchpad

- **Increased innovation potential from FET projects** (is there evidence that the chance of succeeding will be increased through this action?)
- **Creation of concrete innovations (start-up or otherwise)** (concreteness of the innovation idea to move closer to market than in the originating project)
- **Stimulating entrepreneurial mindset in FET research world** (is this providing a strong role model for going beyond the research world)
- **Seeding growth and the creation of jobs** (is there a credible pathway presented towards growth and jobs)

FET-Open Innovation Launchpad

Evaluation Process



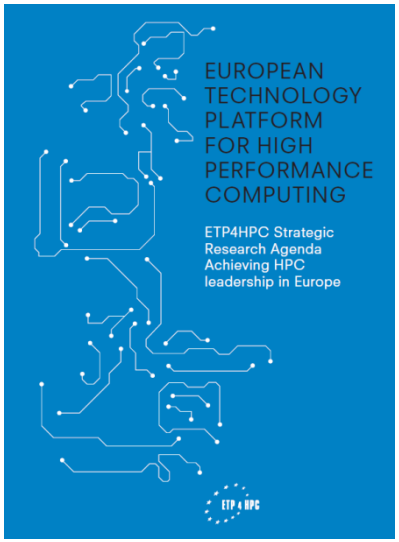
FET-Open Innovation Launchpad

Evaluation Criteria

Excellence	Impact	Implementation
1.1 Clarity and quality of the innovation idea and its link with the previous or ongoing FET project indicated in the proposal. 1.2 Concreteness of objectives and their pertinence for moving the output of FET research through the initial steps of a process leading to a commercial or social innovation. 1.3 Suitability and necessity of the proposed activities to reach the stated objectives, including their complementarity to actions already foreseen or expected from the previous or ongoing FET project.	2.1 Added innovation potential with respect to the FET project from which this innovation originates. 2.2 Extent of economic and/or societal benefits resulting from this innovation as identified in the proposal. 2.3 Suitability of measures for taking the innovation beyond the research world, including through engagement with prospective exploitation partners, other stakeholders, users or society.	3.1 Quality of workplan and management. 3.2 Relevance of expertise in the consortium. 3.3 Appropriate allocation and justification of resources (person-months).
Threshold: 3/5 **Weight: 40%**	**Threshold: 3,5/5** **Weight: 40%**	**Threshold: 3/5** **Weight: 20%**

FET Proactive – High Performance Computing

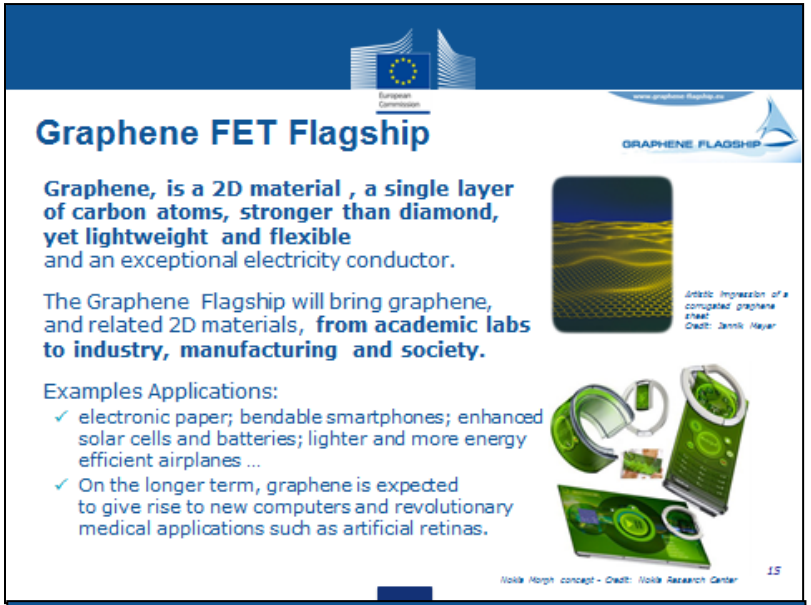
- *Implements Strategic Research Agenda (SRA) of ETP4HPC in Public-Private Partnership*
- *See http://www.etp4hpc.eu/strategy/strategic-research-agenda*
- *Complements other building blocks of HPC strategy under LEIT and e-Infrastructures*

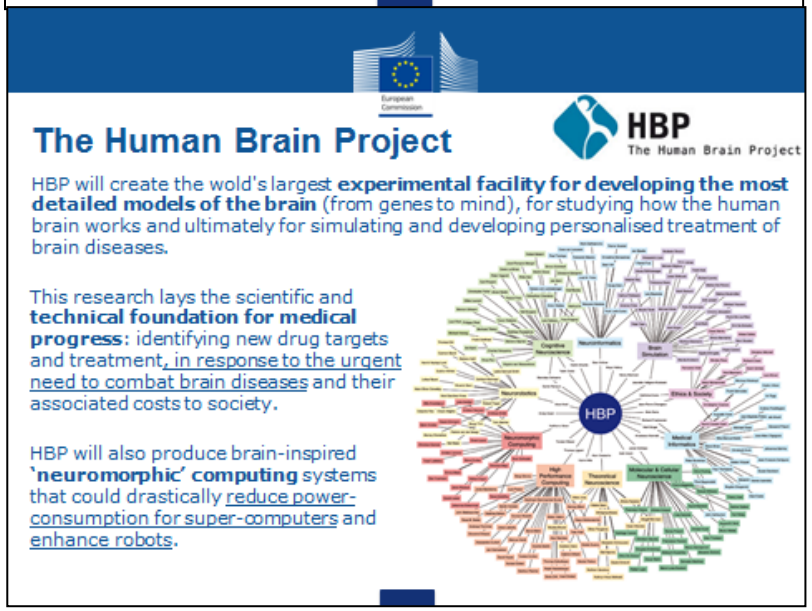


FET Flagships

FET Flagships address ambitious S&T challenges that require:

- ***Setting up large-scale partnerships that bring together the leading researchers from a large number of research organisations (academia and industry);***
- ***Commitment to a strong science investment over a long time period that cannot be carried out alone by the Commission or any single Member State***

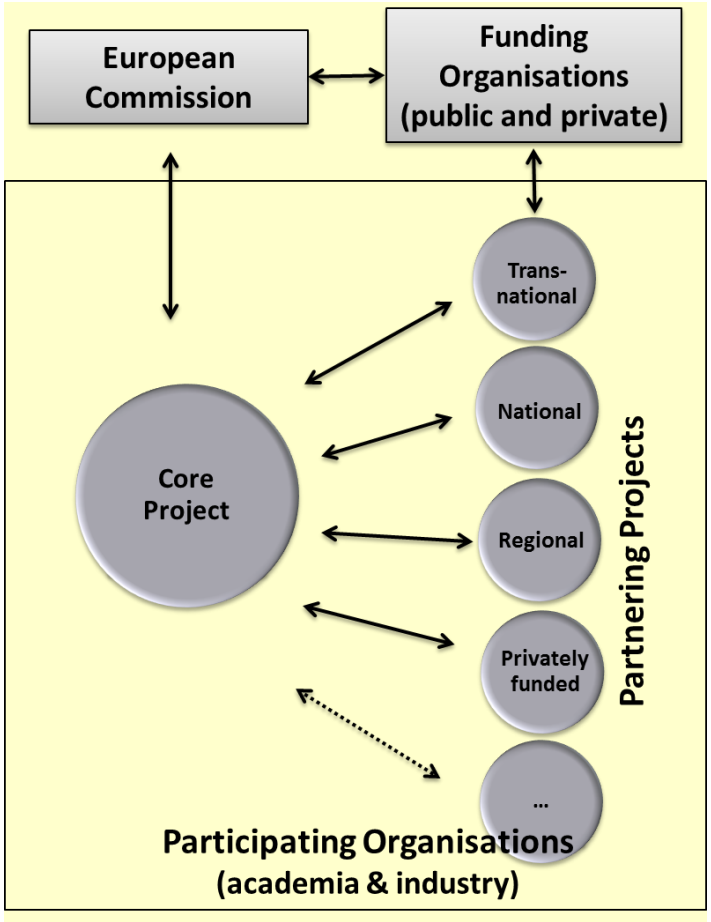




FET Flagship Partnering

- *The implementation model of the Flagships aims to link together and ensure coordination and synergy of all those research activities relevant for the Flagship that are funded by the Commission and the Member States.**

- *Partnering Projects are projects supported by national/regional funding agencies and/or by private funding. They are addressing areas relevant for the Flagships and contribute to their objectives.***



***See http://ec.europa.eu/programmes/horizon2020/en/news/fet-flagship-model-implementation-and-governance-model-horizon-2020-short-overview-presentation**

****See Staff Working Document: SWD(2014) 283 final of 16.09.2014**

Thank you for your attention!
Questions?