

# APRE - Agency for the Promotion of European Research



***FET OPEN***

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*NCP Future Emerging Technologies*  
*NCP Access to risk finance*  
*NCP Spreading Excellence*

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# FET Open features

## *FET Open*

“..first step on the way towards future  
**European scientific and industrial leadership**  
in areas that today simply do not exist yet...”



# FET Business Plan?



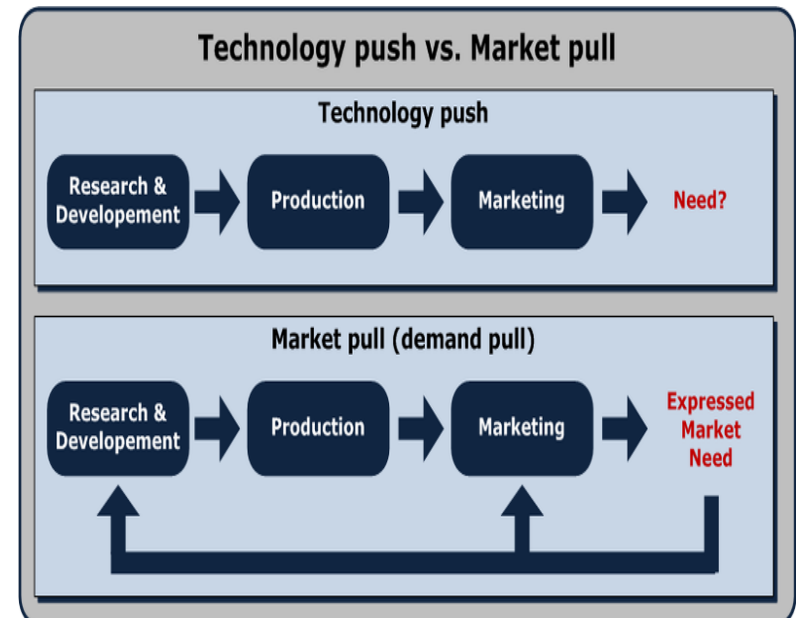


# FET Open features

## S&T Excellence

### *1.1 Long term vision and Objectives*

- **Technology Push?**
  - R&D need
  
- **Demand pull?**
  - Market need





# FET Open features

- **S&T Excellence**

***1.2 FET aims at accelerating transition from upstream (early stage) to technology development***

***Technology readiness levels (TRL)***

- • 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)



# FET Open features

## *S&T Excellence*

### *1.2 Interdisciplinary nature*

#### ■ Research disciplines?

- Software engineering, computer engineering, biology chemistry nanoscience, social science, economics, etc..

#### ■ Value chains?

- Health, ICT, mobility, etc..

#### ■ Degree of Adaptability?

- Smart physical systems, Internet of things, robotics, etc..





# FET Open features

## *S&T Excellence*

### *1.2 Interdisciplinary nature*



- **Trans-disciplinarity among scientific disciplines?**
  - ✓ Physical sciences, information sciences, environmental sciences, social sciences, etc..
- **Trans-disciplinarity among areas in a disciplines?**
  - ✓ cyber-physical systems, cloud computing, internet of things...



# FET Open features

## *S&T Excellence*

### *1.2 Interdisciplinary nature (definition)*



- *The evaluation criterion ‘Excellence’ refers to “trans-disciplinary considerations, where relevant”. This aspect will therefore be evaluated – where relevant – and reflected in the scoring*
- ✓ In the context of Horizon 2020, trans-disciplinarity refers to approaches and methodologies that integrate as necessary (a) theories, concepts, knowledge, data, and techniques from two or more scientific disciplines, and (b) non-academic and non-formalized knowledge. In this way, trans-disciplinarity contributes to advancing fundamental understanding or solving complex problems while fostering multi-actor engagement in the research and innovation process.





# FET Open features

## 1.2 Interdisciplinary nature

Field of Activity

BRANCHES	New Technologies									
	Biotechnology	Laser/Optics	Knowledge-based Systems	Microsystems Technology	New Materials	Chemistry	Medical Engineering	Energy/Environment	Traffic Engineering/Logistics	ICT
Automotive										
Electric										
Mechanical Engineering										
Nutrition										
Chemistry/Pharma										
Building Industry										
Plastics/Timber										
Ceramic										
Textiles										
Metal Processing										

ICT, social sciences,  
economics, global  
systems....

Financial, Insurance,  
Water supply, Real  
estate, Housing,  
Telecom, etc.

(The marked fields symbolise combinations of technologies and branches and change according to new tasks.)



# FET Open features

## Implementation Consortia

- **Partners (average)**
  - Min. 5    Max 12
  
- **Duration (average)**
  - >28 <42 months





# FET Open features

## *IPR Management*

### ■ Pilot on Open Research Data (FET)

- Possibility of “*opting out*” but advisable to participate in the pilot

### ■ Open Access

- *Either Green or Gold access....*
- *Or both?*





# FET Open features

## ***IP Management***

***IP management is key in order to exploit project results effectively***

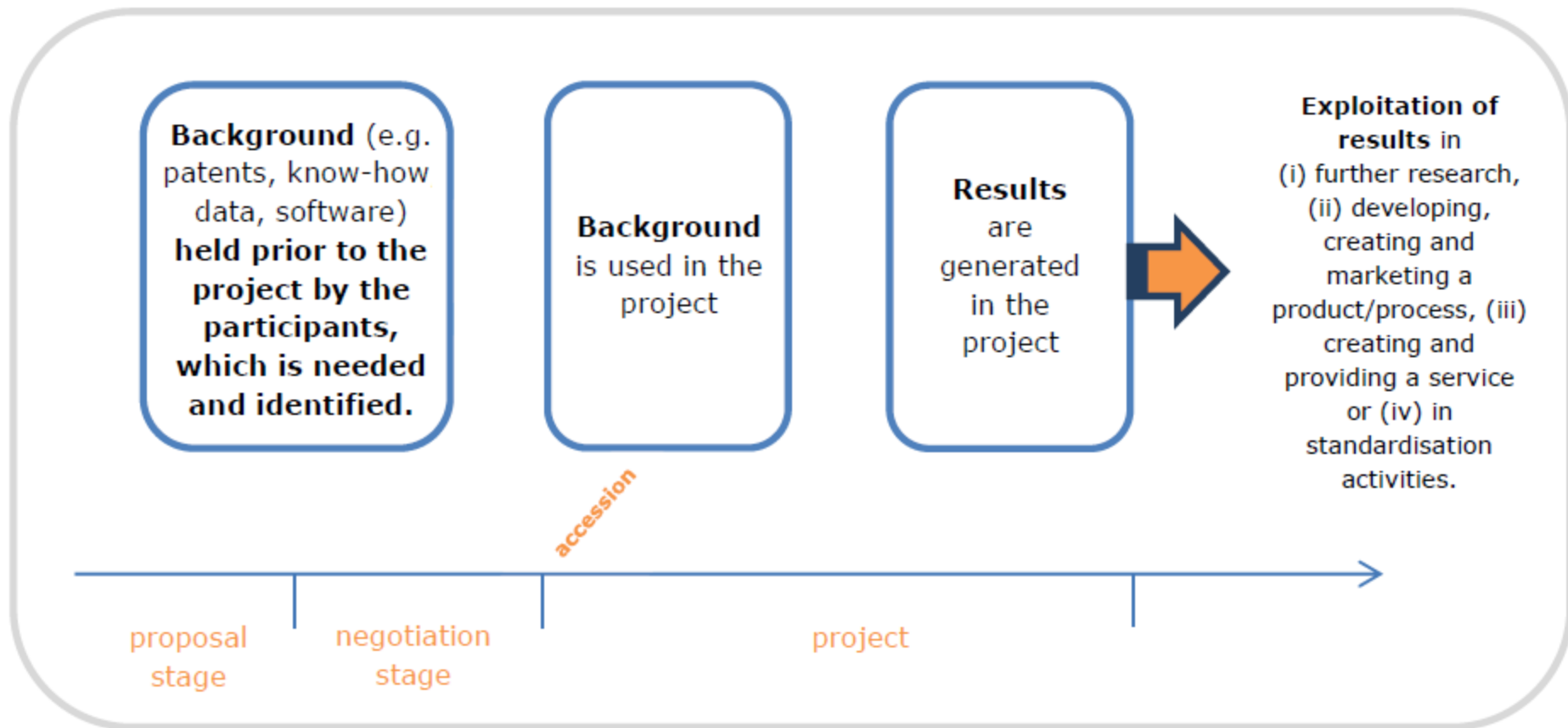
***IP plan shall include:***

- 1) Identificazione del background (e.g., patent, know how, data) a disposizione e ciò che è necessario per la riuscita (e.g, quali data/set saranno condivisi e quali no);*
- 2) Eventuale gestione integrata IP attraverso la previsione di "data management plan". Evidenziare nella proposta/consorzio la presenza di board/esperti IP e come le skills dei partner sono complementari;*
- 3) Gestione dei risultati del progetto (e.,g potenziali strategie/iniziative per up-take dei risultati)*



# FET Open features

## *IP Management*





# FET Open features

## *IP Management*

### How can I identify my own background?

- ❑ list the components you are likely to bring to the project (e.g. scientific study, method, material...) and the potential rights attached to them (e.g. patent, copyright...);
- ❑ verify who owns them;
- ❑ ask for authorisation to use them if there are third parties' rights;
- ❑ if there is something that may affect the other partners' use, they should be informed (e.g. the use of open source software).



# FET Open features

## *IP Management: check list*

- **How will results be protected?** Applicants should describe how they will organise the protection of results that are capable of, or reasonably expected to be capable of, commercial or industrial exploitation. In this context, they may outline how results will be identified (perhaps by allocating some staff member to be an intellectual property rights manager, through the use of laboratory notebooks...), reported and protected from early disclosure. Possible intellectual property rights
  
- **How appropriate is the management structure for the measures proposed in terms of exploitation and protection of results?** It is advisable to give due visibility in the work plan to the exploitation of results and if necessary to introduce a distinct work package. When defining the management structure, applicants should consider the management of intellectual property rights. A committee for exploitation and intellectual property or a manager could be considered and even a consulting body of external experts from industry. The proper structure will depend on the measures foreseen in each project.





# FET Open features

## *IP Management*

- ❑ **How will background and results be organised and managed?** It is relevant to include a clear and adequate description of how applicants will organise ownership and access rights between them, including any economic conditions. Background must be identified and agreed on by participants, which can be done through a separate agreement or the consortium agreement (in the form of positive or negative lists), to be preferably concluded during the negotiation stage. Reference to these plans should be also considered.
- ❑ **How will joint ownership be treated?** Joint ownership should be considered. Applicants may mention that in a case of jointly owned results, they have the intention to reach an agreement for the effective management of such results with details, for example, on shares, exploitation and licensing to third parties.
- ❑ **How will the results be exploited?** Potential participants have several routes for exploitation. The most appropriate one will depend on type of results and the technology readiness level, as well on the partners' circumstances in terms of financial conditions and business plans. Examples of the forms that exploitation can take are given below:





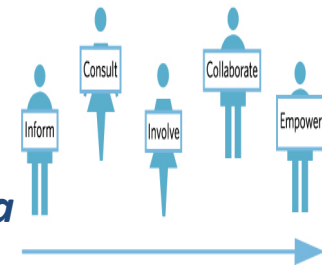
## **Ethics self-assessment**

- [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/ethics/h2020\\_hi\\_ethics-self-assess\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)



## **“DEC”: dissemination, exploitation, communication**

- *Start at the outset of the action and continue throughout its entire lifetime;*
- *Be strategically planned and not just be ad-hoc efforts. This requires careful planning and preparation;*
- *Identify and set clear **communication** objectives (e.g. have final and intermediate communication aims been specified? What impact is intended? What reaction or change is expected from the target audience?);*
- *Be targeted and adapted to audiences that go beyond the project's own community including the media and the public (e.g. is each target audience a relatively homogenous group of people? Can the target audience help the action achieve its objectives?);*
- *Choose pertinent messages (e.g. How does the action's work relate to our everyday lives? Why does the target audience (**dissemination**) need to know about the action?);*

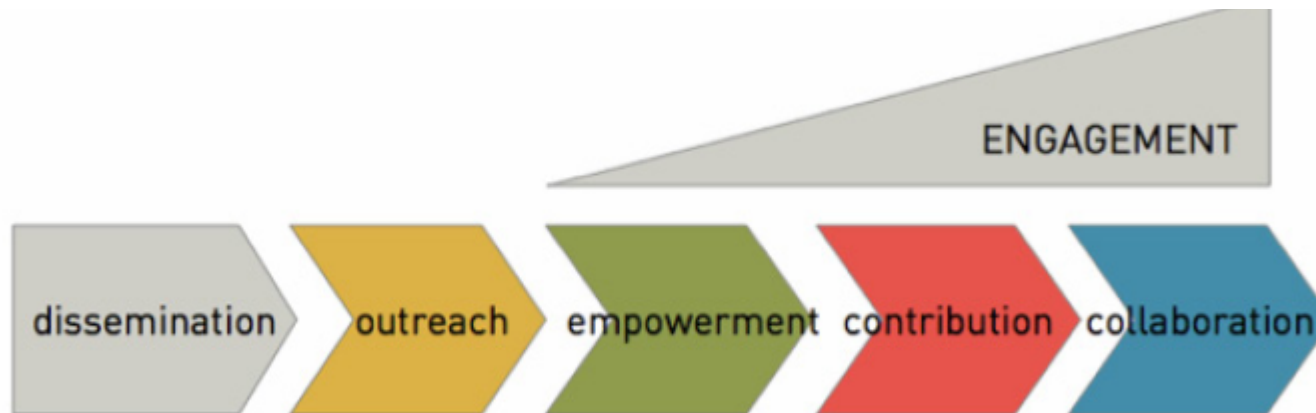


public  
policy



# *What is your opinion?*

The term dissemination, outreach and in-reach should be replaced with an easily understood and relevant term. This could potentially be Stakeholder Engagement. Engagement is much more than Dissemination or Outreach and includes the promotion of project results (i.e. research papers to peers) but what the science can enable and how it can change and benefit society to increase the perceived wisdom and value of investing in science.



Source: Fermin Serrano Sanz, Societize;



# FET Open features

## *Financial support to “linked” third parties*

✓ *Proposals which foresee a financial support to third parties, shall clearly detail the objectives and the results to be obtained and include at least the following elements:*

- *a closed list of the different types of activities that qualify for financial support,*
- *the persons or categories of persons which may receive financial support,*
- *the criteria for awarding financial support*
- *the criteria for calculating the exact amount of the financial support,*
- *the maximum amount to be granted to each third party (may not exceed EUR 60 000 for each third party unless it is necessary to achieve the objectives of the action)*



# FET Open features

## *Financial support to third parties*

*The financial support may also take the form of a prize awarded following a contest organised by the beneficiary.*

*In such case proposals shall clearly detail at least the following elements:*

- the conditions for participation;*
- the award criteria;*
- the amount of the prize;*
- the payment arrangements.*



# FET Open features

## ***Non-EU Countries (to be duly justified...)***

*Applicants from other non-EU countries may be granted funding if:*

- A. Funding is provided for in a bilateral scientific/technological agreement or similar arrangement between the EU and the country where the applicant is based*
- B. The call for proposals clearly states that applicants based in such countries are eligible for funding*
- C. Their participation is deemed essential for carrying out the action by the Commission or the relevant funding body because it provides:*
  - 1. outstanding competence/expertise*
  - 2. access to research infrastructure*
  - 3. access to particular geographical environments*
  - 4. access to data*



# FET Open features

## Gender

✓ *In Horizon 2020, the gender dimension is so far explicitly integrated into more than 100 topics across almost all sections of the 2014-2015 Work Programme.*

✓ *In these cases, experts will check how sex and/or gender analysis is taken into account as requested in the proposal template and consider this while giving a score under the "excellence" and/or the "impact" criteria.*



# Gender issues

✓ *Gender balance also comes into play as a ranking factor to prioritise ex aequo proposals....*

*“e.g., gender balance among the personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities”.*

✓ *In these cases, the relative gender balance of the consortium, at the time of the proposal submission will be noted, with reference to section 4.1 of the proposal template ("Participants"), where applicants are asked to specify the gender of the persons who will be primarily responsible*





# FET Open features

## ***SMEs participation***

(i) Proposals that address topics not otherwise covered by more highly-ranked proposals, will be considered to have the highest priority.

(ii) These proposals will themselves be prioritised according to the scores they have been awarded for the criterion *excellence*. When these scores are equal, priority will be based on scores for the criterion *impact*. In the case of Innovation actions, and the SME instrument (phases 1 and 2), this prioritisation will be done first on the basis of the score for *impact*, and then on that for *excellence*.

If necessary, any further prioritisation will be based on the following factors, in order: size of budget allocated to SMEs; gender balance among the personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities.



# FET Open features

## ***HOW SHOULD RESPONSIBLE RESEARCH AND INNOVATION (RRI) BE ADDRESSED AND EVALUATED IN PROPOSALS?***

✓ RRI implies that societal actors (researchers, citizens, policy makers, business, third sector organisations, etc.) work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of society.



# FET Open features

## *(RRI)*

- Public engagement may be implemented in the proposal under excellence - concept and approach - transdisciplinary considerations or in the impact section

Public engagement may also form part of the communication activities;

- Open access to scientific publications (peer-reviewed scientific research articles) is expected to be taken into account as part of IPR management, where relevant;
- Education and training may form part of the dissemination and exploitation plan;





# FET Open features

## HOW SHOULD PUBLIC ENGAGEMENT BE ADDRESSED AND EVALUATED IN PROPOSALS?

- ✓ Foster co-responsibility amongst multiple actors by raising awareness, mutual learning and science literacy
- ✓ Perform participatory research, where engagement is embedded upstream and throughout the research process for more societally relevant research and innovation outcomes
- ✓ Support the development or implementation of research and innovation policy and/or thematic policies
- ✓ Promote the take-up of PE within the R&I governance process through actions bringing about institutional change amongst R&I actors



# Questions?