



# ***Future & Emerging Technologies (FET)***

*FET Open ESR Analysis and Tips*

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## [FET OPEN: Features]

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

- early stage, high risk visionary science and technology
  - agile, risk-friendly and highly interdisciplinary research approach
1. Excellence (60%)
  2. Impact (20%)
  3. Implementation (20%)



# [FET OPEN: Features]

## Section 1: S&T Excellence

Your proposal must address a work programme topic for this call for proposals.

⚠ This section of your proposal will be assessed only to the extent that it is relevant to that topic.

### 1.1 Targeted breakthrough, Long term vision and Objectives

- Describe the targeted scientific breakthrough of the project.
- Describe how the targeted breakthrough of the project contributes to a long-term vision for new technologies.
- Describe the specific objectives for the project, which should be clear, measurable, realistic and achievable within the duration of the project.

### 1.2 Relation to the work programme

- Indicate the work programme topic to which your proposal relates, and explain how your proposal addresses the specific challenge and scope of that topic, as set out in the work programme.

### 1.3 Novelty, level of ambition and foundational character

- Describe the advance your proposal would provide beyond the state-of-the-art, and to what extent the proposed work is ambitious, novel and of a foundational nature. Your answer could refer to the ground-breaking nature of the objectives, concepts involved, issues and problems to be addressed, and approaches and methods to be used.

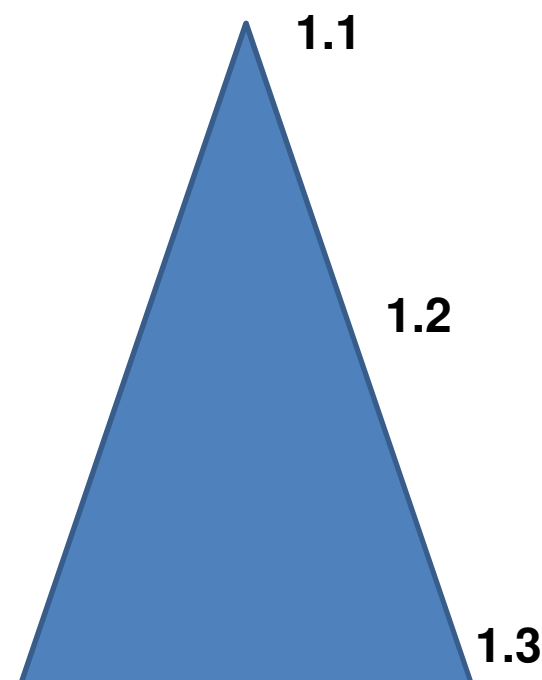
### 1.4 Research methods

- Describe the overall research approach, the methodology and explain its relevance to the objectives.
- Where relevant, describe how sex and/or gender analysis is taken into account in the project's content.

⚠ Sex and gender refer to biological characteristics and social/cultural factors respectively. For guidance on methods of sex / gender analysis and the issues to be taken into account, please refer to [http://ec.europa.eu/research/science-society/gendered-innovations/index\\_en.cfm](http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm)

### 1.5 Interdisciplinary nature

- Describe the research disciplines involved and the added value of the inter-disciplinarity.





## [FET OPEN: Features]

### S&T Excellence

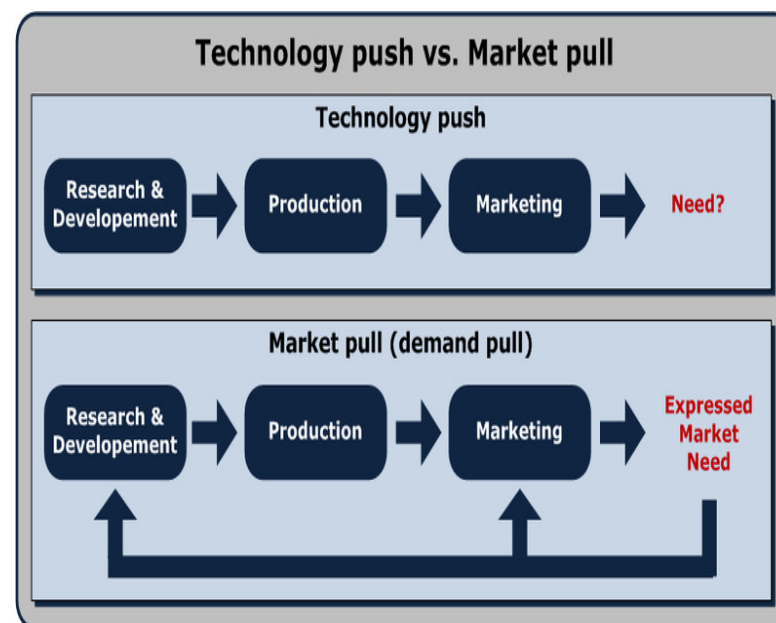
#### *1.1 Target Breakthrough, Long term vision and Objectives*

- **Technology Push?**

- R&D need

- **Demand pull?**

- Market need





## [FET OPEN: Features]

### S&T Excellence

#### *1.2 Relation to the work programme*

- New opportunities of long-term benefit for citizens, the economy and society, the early detection of promising new areas, developments and trends, wherever they come from, will be essential!!!
- S & T
- Refer to public data (statistics) if relevant
- Refer to previously funded projects or European Strategies



## [FET OPEN: Features]

### S&T Excellence

#### *1.3 Novelty, level of ambition and foundational character*

- Advances beyond the state-of-the-art
- Beyond the Proof of Principle
  
- Focused on each aspect of your proposal!
  - Future Research improvements
  - Methodology
  - Scientific communities
  - Industrial and Social needs



## [FET OPEN: Features]

### S&T Excellence

#### *1.4 Research methods*

- Proposals cannot give solutions,  
**but** they should describe a sound method to get there
- Problems and deviations can happen: they can be handled!



## [FET OPEN: Features]

### S&T Excellence

#### *1.5 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]

### IMPACT

Medium to long term applications

Industrial exploitation (long term)

Top journal publications are expected (better 1 good publications than N in low-factor journal)



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

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



## [FET OPEN: Features]

### Implementation *Consortia*

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



**Pay Attention:** non-EU partner should be sufficiently explained and justified!



## FET Strep

- a. Focus on ICT
- b. Synergies with other disciplines
- c. Standard evaluation
- d. Participation of SME & young entrepreneurs encouraged



## FET Open

- a. Focus on R&D&T + breakthrough
- b. Multidisciplinary approach
- c. Weighted evaluation
- d. Focus on Excellence
- e. Participation of SME & young entrepreneurs encouraged
- f. Additional panel of experts for multidisciplinary aspects
- g. IPR (Open Research Data Pilot)





## WP ICT 2013

### FET Open (*STREP - Small or medium-scale focused research actions*)

- Objective ICT-2013.9.2: High-Tech Research Intensive SMEs in FET research
- Objective ICT-2013.9.3: FET Young Explorers
- Objective ICT-2013.9.5: FET-Open Xtrack



## WP ICT 2013

**FET Open (STREP - Small or medium-scale focused research actions)**

- Objective ICT-2013.9.5: FET-Open Xtrack

8 Retained Proposals

2 Reserved List

22 Low Budget

# LESSONS LEARNED!



## Objective ICT-2013.9.5: FET-Open Xtrack

- ✓ **Clarity of targeted breakthrough** (*objectives*)
- ✓ **Foundational character and novelty** (*possible extension of existing technologies*)
- ✓ **Challenges and high risk** (*experimental*)
- ✓ **Risk management** (*clear strategy*)
- ✓ **Ethical advisory board** (*collaboration modalities*)
- ✓ **Link to European Research Initiatives** (*interdisciplinary*)





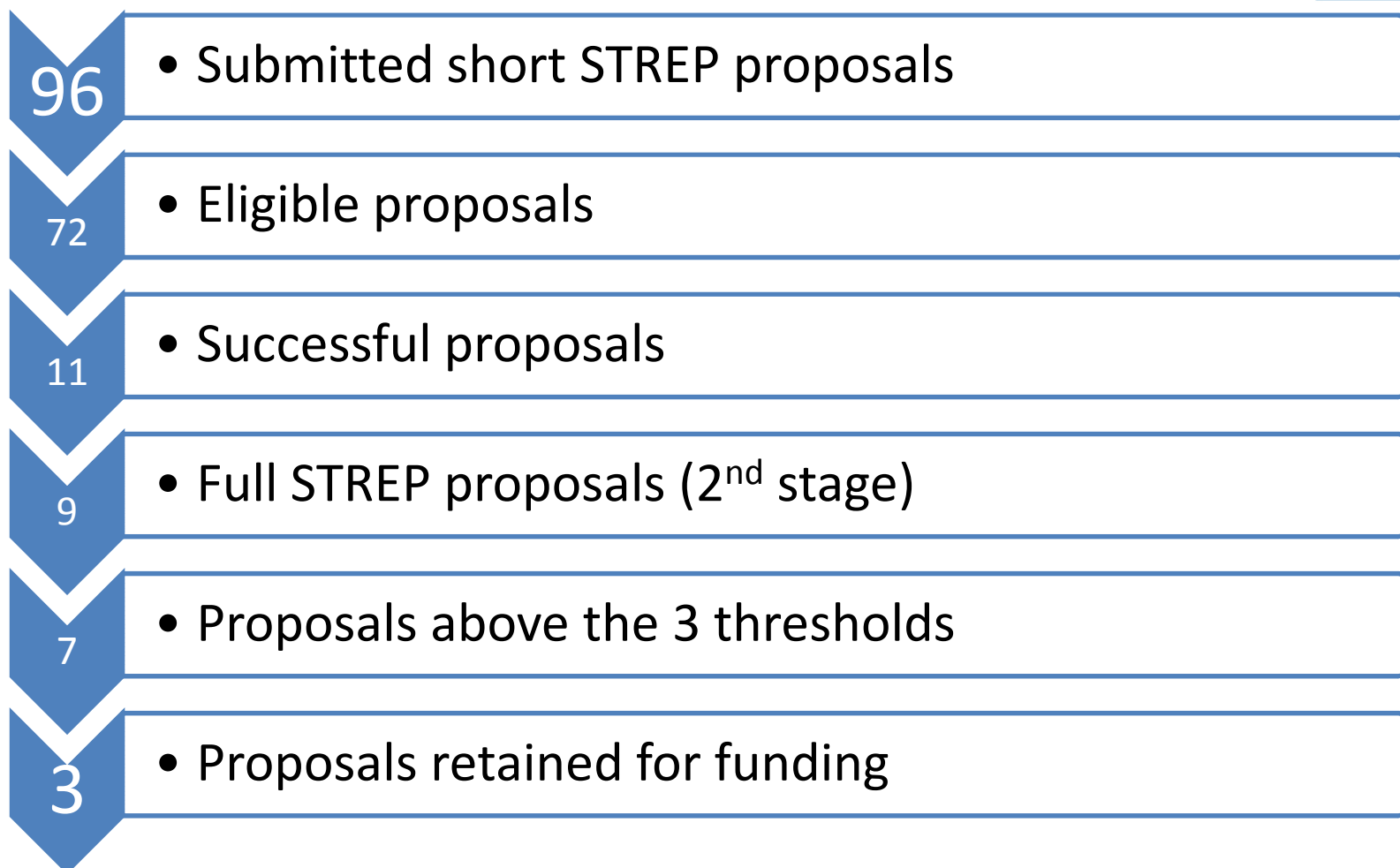
## Objective ICT-2013.9.5: FET-Open Xtrack

- ✓ **Difficult research Objectives** (*Measurement of Goals, Research issues partially addressed*)
- ✓ **Involvement of non-EU partners** (*to be clearly justified*)
- ✓ **No novel approach/ambition and clear target** (*incremental approach is not enough*)
- ✓ **Proof-of-principle is not enough** (*potential exploration of the project to be described*)
- ✓ **Further use of results to be described** (*TRL*)
- ✓ **Interaction among work packages** (*required*)





## Ex.1: ICT-2013.9.3 – FET Young Explorers (batch 15)



Overall success rate: 4.2%





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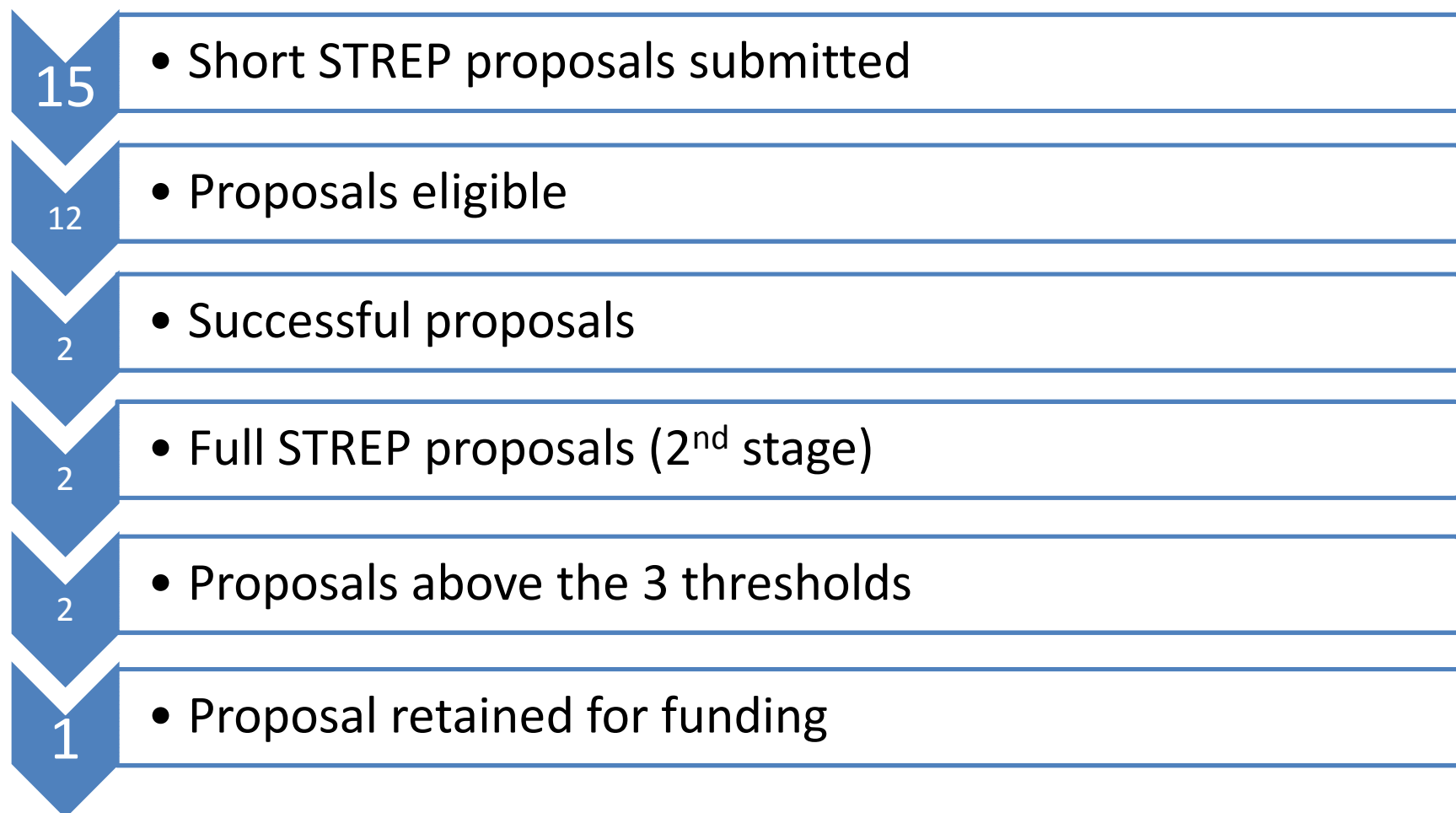
Proposals have not been retained for funding because of:



- *insufficient quality or ineligibility (2 full and 85 short STREP proposals) → most of the proposals not retained because they were below threshold 1*
- *low priority compared with available budget (3)*



## Ex.2: ICT-2011.9.2 - High-Tech Research Intensive SMEs in FET research (batch 14)



Overall success rate: 8.33%



## Ex.2: ICT-2011.9.2 - High-Tech Research Intensive SMEs in FET research (batch 14)

Proposals have not been retained for funding  
because of:



- *insufficient quality → most of the proposals (10) not retained because they failed on the 1<sup>st</sup> criterion, others (3) for ineligibility*



## 1st criterion - scientific and/or technological challenges

- Gaps and vagueness in the methodology and proposed approached explanation
- Limited expected contributions to specific challenges



## 3<sup>rd</sup> criterion - Potential impact through the development, dissemination and use of project results



- the proposal does not convincingly explain its impact on science/research/innovation eco-system
- the target groups and dissemination activities are not sufficiently well defined
- exploitation plans are not properly considered and insufficient attention is paid to patenting issues



## 2<sup>nd</sup> criterion - quality and efficiency of the implementation and the management



- Task/role allocation not appropriate according to the activities envisaged
- P/Ms and budget allocation not appropriate or not well justified according to challenges involved



# Questions?