

# The art to write a successful proposal

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# EPFL today

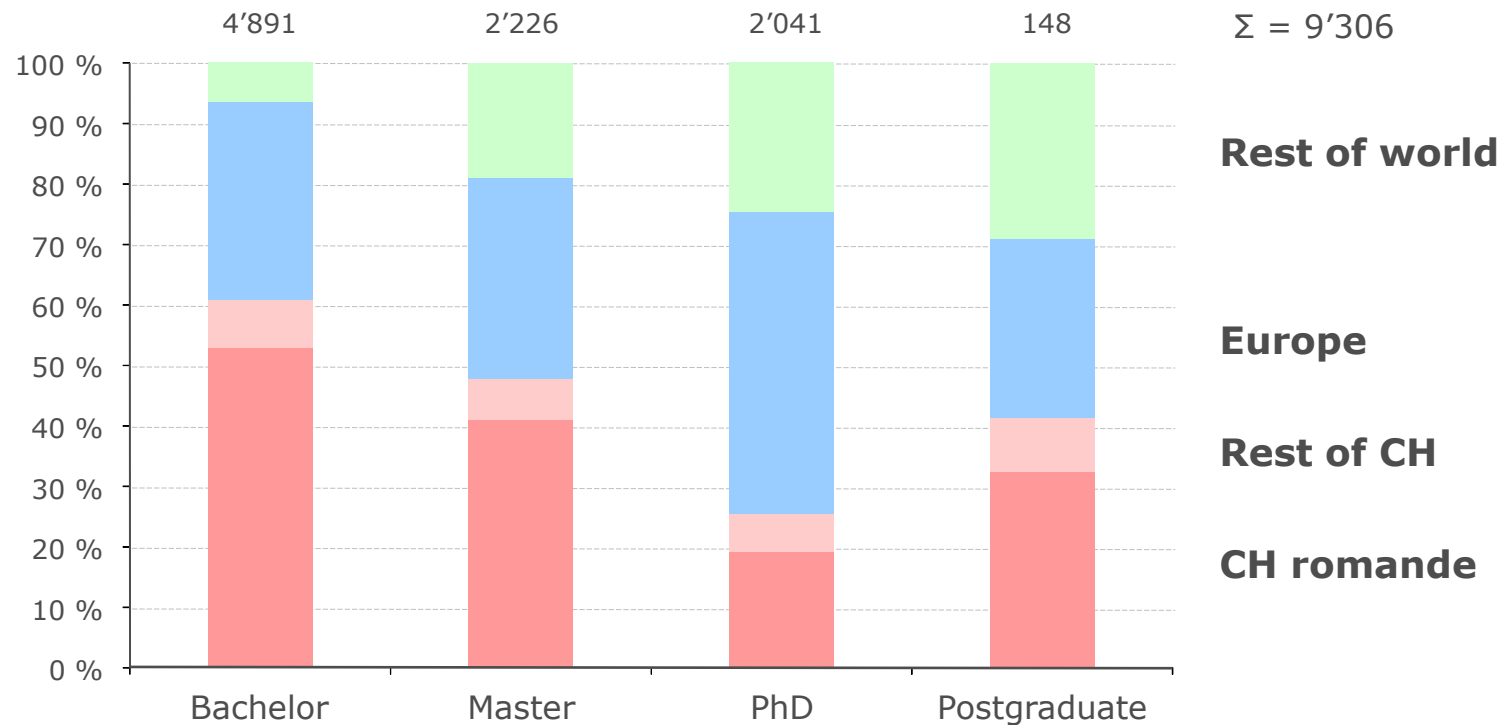


Campus	9'306	Students, including PhD students
	358	Faculty
	2'982	Staff *
Budget **	575 Mio CHF	Swiss Confederation
	228 Mio CHF	external funding

\* Scientific and administrative staff; Faculty and PhD students not included  
\*\* Expenses

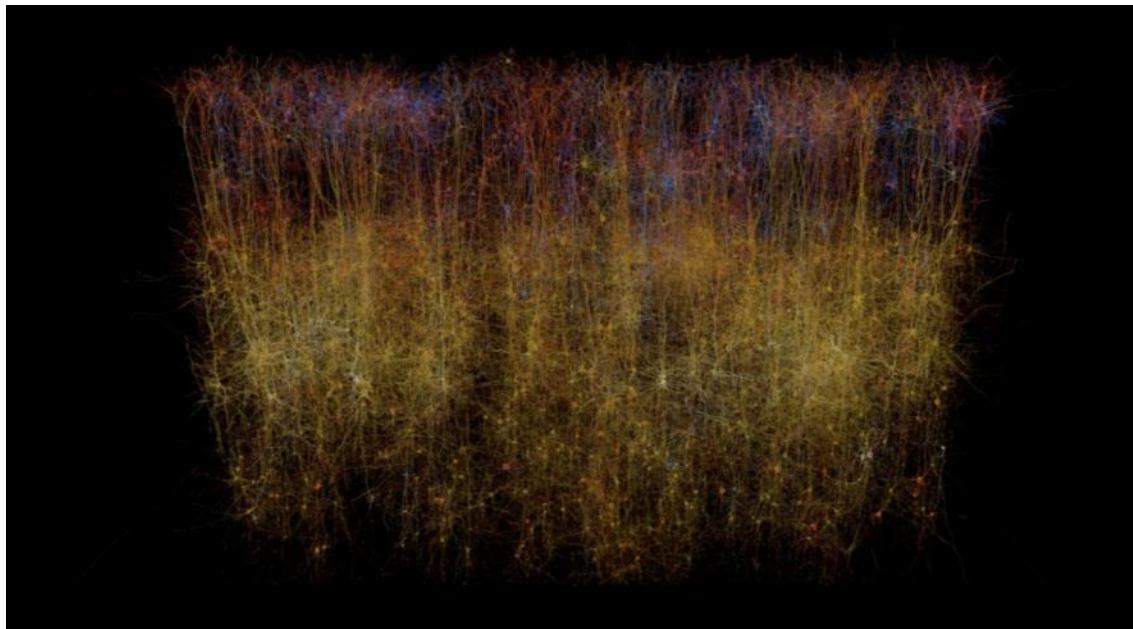
# Where do the students come from ?

2012



# HBP awarded a 1 billion € FET Flagship

- > Consortium of 242 researchers, of 134 institutions in 23 countries
- > Swiss contribution: 75 MCHF for the 2013 -2017 period



# MOOC\* – The EPFL experience

- 1<sup>st</sup> EPFL MOOC course on Coursera in 2012
- Prof. Martin Odersky (I&C): Functional Programming Principles in Scala
- More than 50'000 students registered online
- Today EPFL is one of the European leaders in MOOCs
- 600'000 registered MOOCs students
- Over 20 courses given, 10 running, 10 in preparation



*Prof. Martin Odersky*

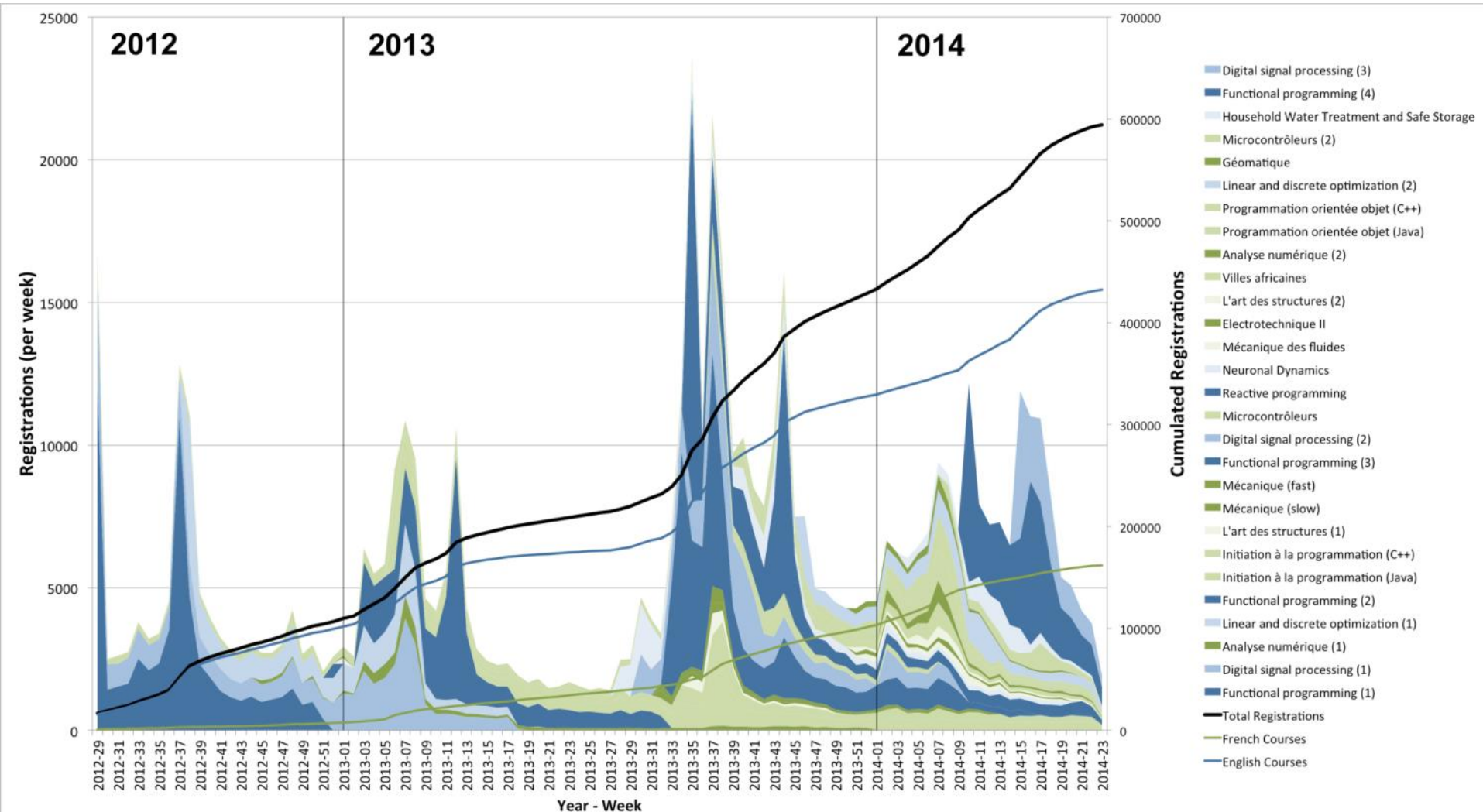
\* MOOC : **M**assive **O**pen **O**nline **C**ourses

[www.coursera.org](http://www.coursera.org)

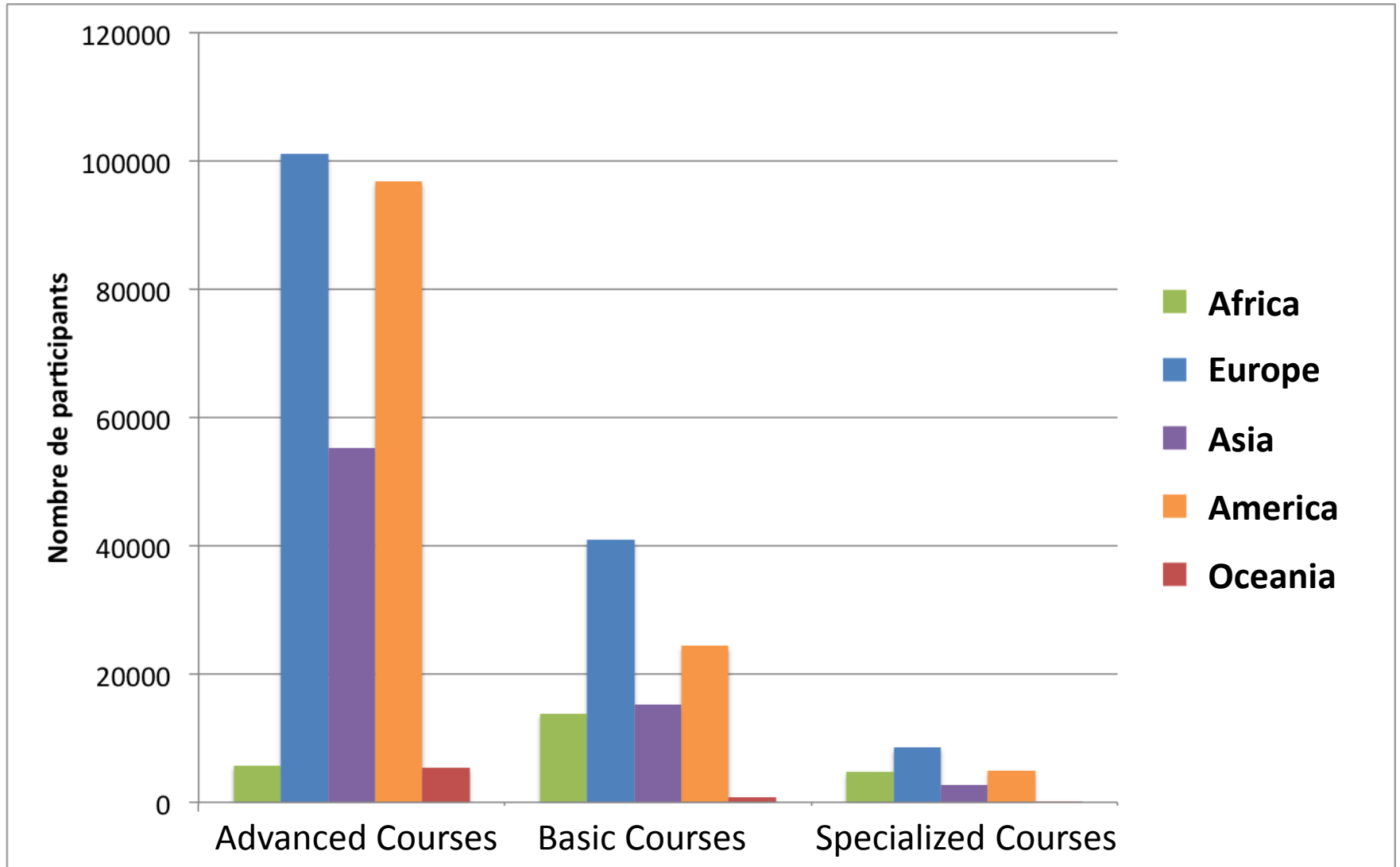
[www.edx.org](http://www.edx.org)



# 600'000 MOOC students registered



# Participants MOOCs EPFL (2012-2014, N=377'619)



Reading without reflecting is like eating  
without digesting

*Edmund Burke*



# How to evaluate scientific proposals?

First guess: read the science

National System  European System

Europe is more demanding!!!

Excellence, **Impact**, **Implementation**

# Understand the European Rational



National System



European System

# Structure of Horizon 2020, €70 billion

## Excellent Science (32%)

European Research Council ERC

Marie S.- Curie Action (MSCA)

Future and Emerging Technol. (FET)

EU Research Infrastructure (RI)

## Industrial Leadership (22%)

**Leadership in enabling and industrial technologies (LEIT)**

ICT

Nanotechnologies

Advanced materials

Biotechnology

Advanced manufacturing, processing

Space

Access to risk finance

Innovation in SME

## Societal Challenges (39%)

Health, demographic change and wellbeing

Food, agriculture, forestry, marine and maritime water, bioeconomy

Secure, clean and efficient energy

Smart, green and integrated transport

Climate, environment, resources, raw materials

Inclusive and innovative societies

Secure societies

## Transversal Schemes

European Institute of Technology EIT

Joint Research Centers (JRC)

Spreading Excellence and Widening Participation

Science with and for Society

## To remember

Bottom-up means thematic areas are not defined

Submission of proposals in any thematic field possible

**However, even for bottom-up approach your proposal is not judged on scientific excellence only**  
(Exception: ERC)

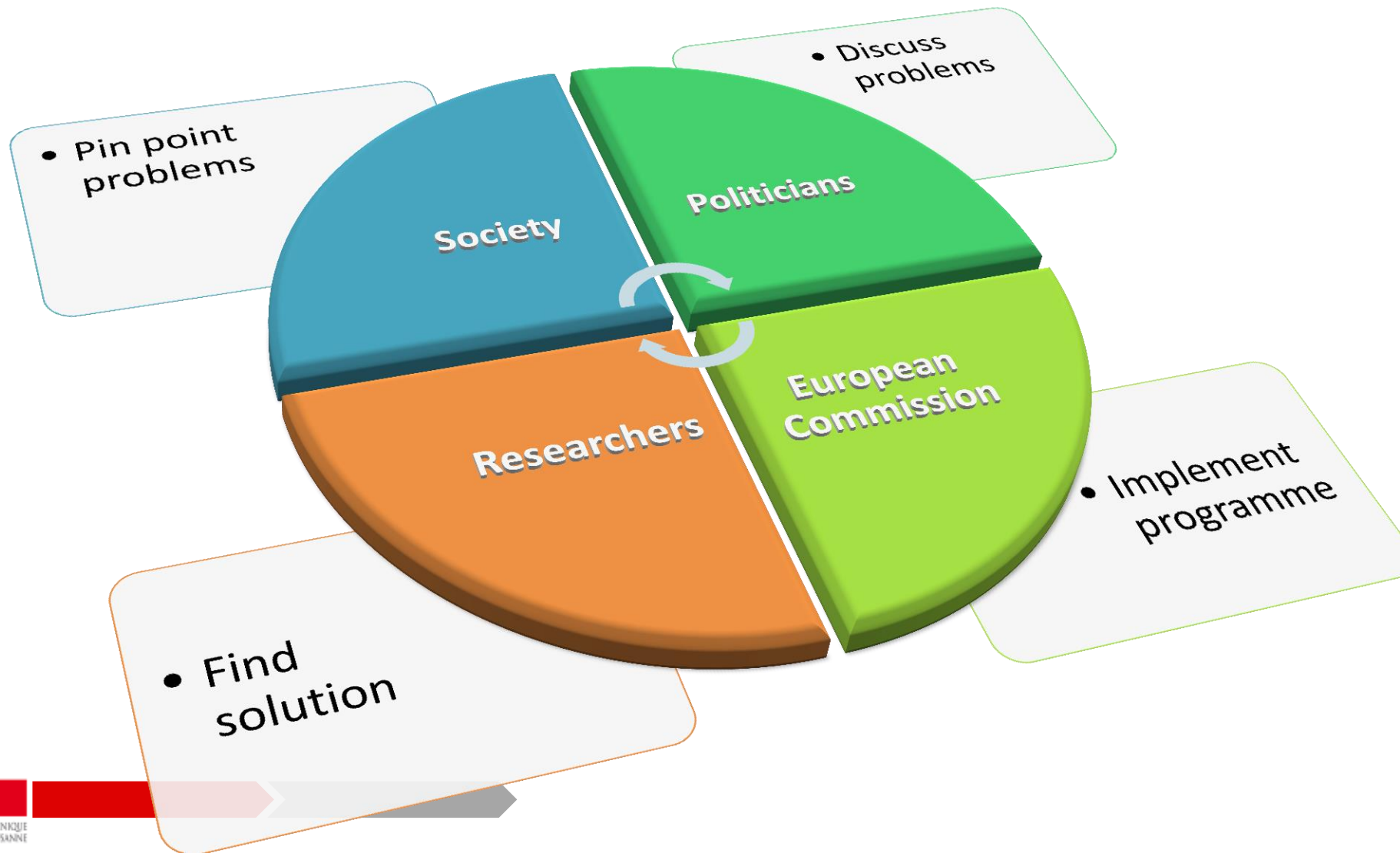
## Understand the European Rational

Excellence

Impact

Implementation

# Understand the European Rational

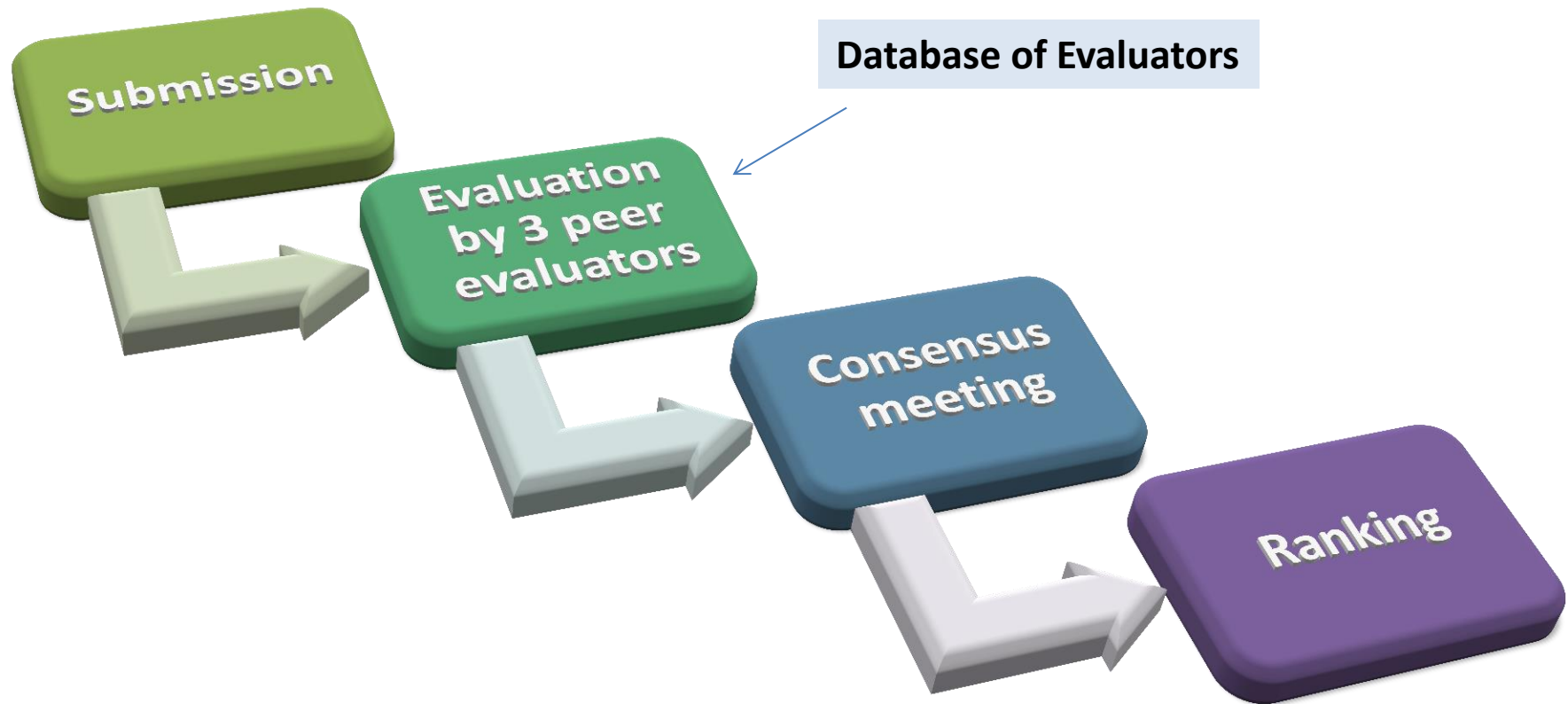


# Understand the European Rational

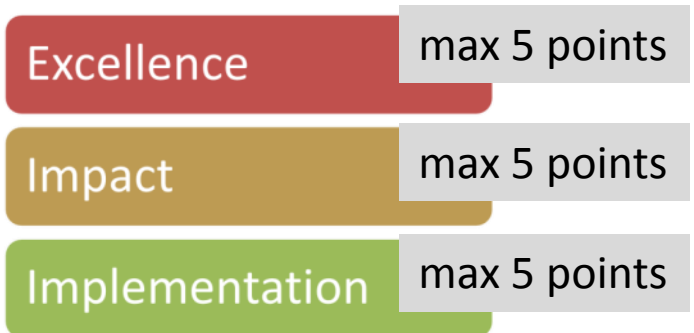
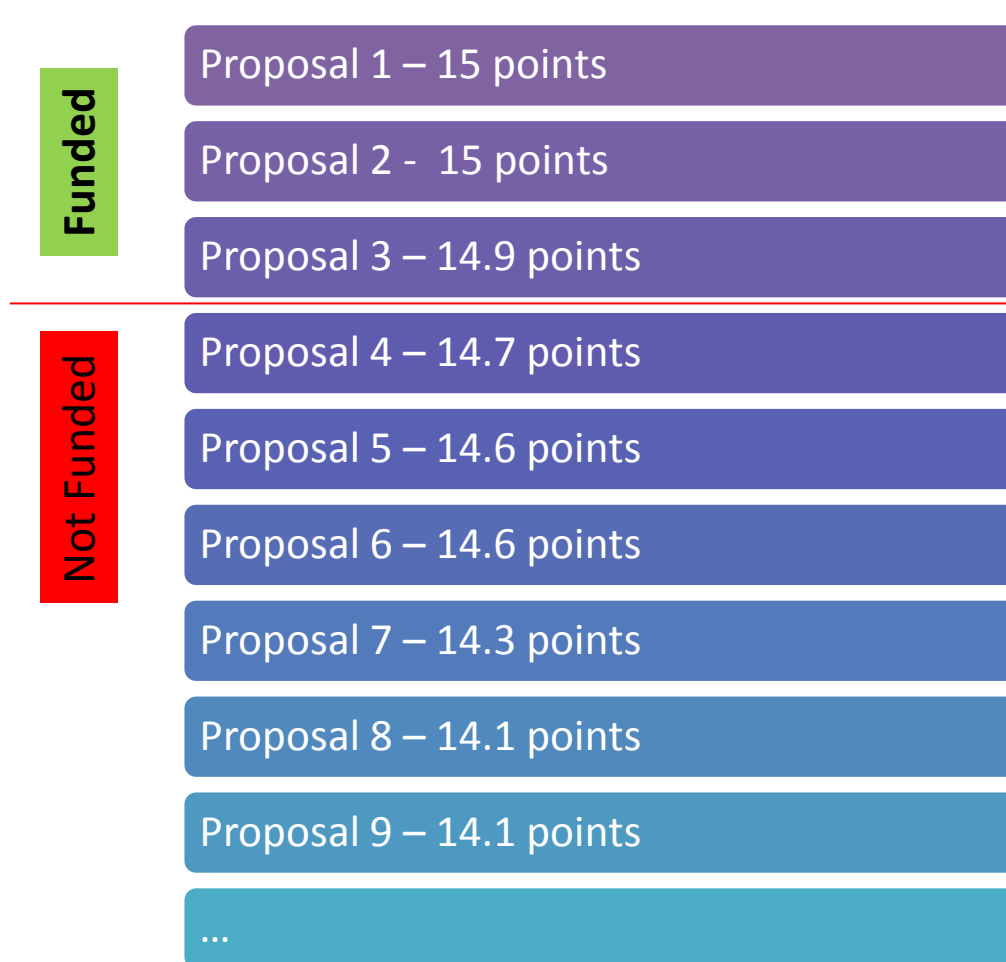




# Evaluation – The Process



# Evaluation – Ranking example



Threshold: 3/5, 10/15

## To remember

Evaluation done by peers

Evaluation against criteria defined by the European Commission

Criteria are transparent

Your evaluators might work in a different thematic field

Write understandable proposals – it's about selling

# Important Documents when submitting

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef-ef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef-ef)

Work Programme

Proposal Templates

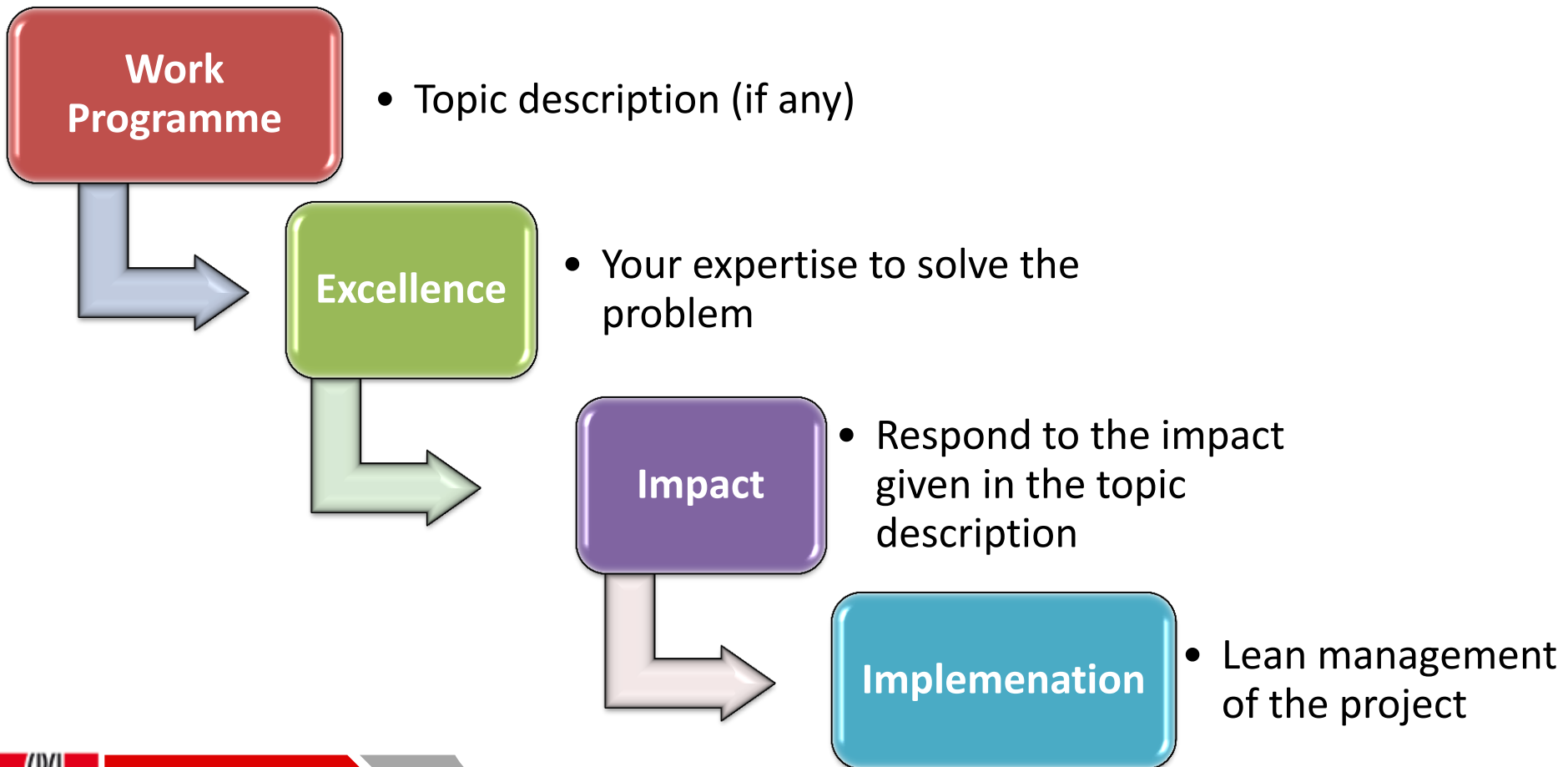
Evaluation Forms

Special Regulations

# Work Programme WP is the Starting Point

Example:

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1143-lce-12-2015.html#tab1>



# Excellence in Cooperation Projects

Check evaluation forms:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef)

Clarity and pertinence of the objectives

Credibility of the proposed approach

Soundness of the concept, including trans-disciplinary considerations, where relevant

Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art

# Excellence in Marie Curie Fellowship

Check evaluation forms:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef)

Quality, innovative aspects and credibility of the research (including inter/multidisciplinary aspects)

Clarity and quality of transfer of knowledge/training for the development of researcher in light of the research objectives

Quality of the supervision and the hosting arrangements

Capacity of the researcher to reach or re-enforce a position of professional maturity in research



# Impact Marie Curie Proposal

Check evaluation forms:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef)

**Enhancing research- and innovation-related human resources, skills and working conditions to realise the potential of individuals and to provide new career perspectives**

Examples:

- Train researchers in skills needed in both the public and private sectors;
- Show how the provided training will enhance the competitiveness and the career
- prospects of the early-stage researchers;
- Describe how European competitiveness will be enhanced through the innovative aspects of the project.

# Impact in Marie Curie Proposals

Check evaluation forms:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef)

## **Effectiveness of the proposed measures for communication and results dissemination**

Examples:

- Show how the European collaborations helps achieve scientific excellence, contributes to competitiveness and/or solves societal challenges
- Show how the outcomes will be relevant to everyday life, help introduce novel technologies, create new jobs etc.
- Promote results to decision makers

# Implementation

Check evaluation forms:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef)

Overall coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Appropriateness of the management structures and procedures, including quality management and risk management

Appropriateness of the institutional environment (infrastructure)

Competences, experience and complementarity of the participating organisations and institutional commitment

# Rules of Participation

# What has changed compared to FP7

Single set of rules for all programmes and funding bodies. Flexibility where needed

Simpler rules for grants: flat rate for indirect costs (25%), no time sheet if 100% on project, accounting practice for direct costs

Improved rules on IPR (open access)

Grants, prizes, procurement

# What remained

Minimum conditions: at least 3 legal entities in MS/AS

Individual actions (ERC, Marie Curie Fellowships)

Eligibility for funding (MS/AS; 3rd countries, industrialized 3rd countries)

Work Programme (new: 2 years cycle)

# Submission of Proposals

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

All calls online, search function

Electronic submission only ([ECAS password](#), PIC for all partners)

Step-to-step explanation: <http://ec.europa.eu/research/participants/portal/desktop/en/funding/>

Proposal: Online structured part – Part A

Upload non-structured part – Part B – pdf file(s)

Submit well in advance of the deadline (days, not hours before)



# Proposal – Part A

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef-pt](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef-pt)

## Structured data

Section 1: title, acronym, objective, keywords, abstract, declarations

Section 2: participant identification code (PIC), contact information

Section 3: cost and requested grant details

Section 4: ethics questionnaire

Section 5: call specific questions

# Proposal – Part B

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef-pt](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef-pt)

Unstructured Part, description of the project

Be aware of page limits

**Excellence:** objectives, concept, progress beyond state- of-the art, matching topic

**Impact:** potential impact, measures to maximise impact, exploitation

**Implementation:** work packages description, 3rd parties, governance, rules

Check the evaluation forms as content is depending on the project type:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef-ef](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef-ef)

# Evaluation of Proposal

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-call\\_ptef-pt](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-call_ptef-pt)

Excellence, impact, implementation

Weightings and threshold → see work programme

Peer review, three evaluators (in general, may change)

Check manual of the EC on submission and evaluation:

[http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/pse/h2020-guide-pse\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf)

# Minimal Requirements

Three different partners from three different Member or Associated States  
See here for the list:

Exceptions:

- ERC
  - Marie Curie MSCA
  - SME instrument
  - CSA (Coordination and support actions)
- 
- Check the Work Programme

# Who can participate?

Any legal entity (exceptionally as well a natural person)

Project partner is the legal entity not the researcher or the research group

# Who is funded?

European Member States

Associated States → [list](#)

International Organisations (e.g CERN)

ICPC – “International co-operation partner country”: Third Countries with low to medium income

([http://ec.europa.eu/research/iscp/pdf/icpc\\_countries\\_en.pdf](http://ec.europa.eu/research/iscp/pdf/icpc_countries_en.pdf))

Any partner if crucial for the project and mentioned in the work programme

Joint Research Centres (JRC)

# Type of activities supported

Research

Testing, validation of technologies, demonstrators

Dissemination activities: scientific publication, workshop, conferences

Exploitation activities: patents, IP-management, market analysis,

Management and coordination



# FP7 Example Marie Curie Abstract

<http://cordis.europa.eu/newsearch/index.cfm?page=simpleSearch&language=en&js=1>

[http://cordis.europa.eu/projects/rcn/103598\\_en.html](http://cordis.europa.eu/projects/rcn/103598_en.html) (FP7, IEF)

[http://cordis.europa.eu/projects/rcn/98903\\_en.html](http://cordis.europa.eu/projects/rcn/98903_en.html) (FP7, IIF)

[http://cordis.europa.eu/projects/rcn/108875\\_en.html](http://cordis.europa.eu/projects/rcn/108875_en.html) (FP7, IEF)

[http://cordis.europa.eu/projects/rcn/106693\\_en.html](http://cordis.europa.eu/projects/rcn/106693_en.html) (Fp7, IEF)

# Definitions

## **Work Programme:**

by now you should know what it is

## **Topic:**

Thematic which is called (top-down, bottom-up)

## **Work Package/tasks:**

your proposal needs to be structured in work packages and tasks

## **Deliverables:**

Outcome of the project (reports, events, publications, prototypes,...)

## **Milestones:**

Event(s) during the project lifetime that receives special attention

# Success rate

## Hints and tricks: General

A research proposal is **not** a scientific publication – it is a selling document

Write in simple words – don't be a poet

The abstract page is crucial – develop a compelling pitch

Structure your text – short paragraphs

Give it a logical structure

Use graphics and tables

Horizon 2020 focuses on innovation and business

Put yourself in the role of an evaluator

# Hints and tricks: General II

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-grants-manual-hi](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-grants-manual-hi)

Use the templates as a guideline

Check the evaluation forms

# Hints and tricks Excellence

Be realistic in what you promise – it is legally binding (deliverables)

Be focused on what you want to achieve

Explain the essence of your project, state-of-the art and what goes beyond it

Mention why this is important

Radical new ideas? – mention it – and add why this is important (impact)

# Hints and tricks Impact

Read the work programme and respond to the impact described in the topic

Be realistic in formulating the impact of your project

Impact means what remains of your project once terminated

# Hints and tricks Implementation

Structure your proposal in meaningful work packages

For cooperation projects: choose carefully your partners (quality, complementarity, balanced)

The coordinator is key (cooperation project)

Have a decent management structure and tools

Address risks



# The art to write a successful proposal

It's about filling templates with excellent ideas

Good Luck

