

Research Fund for Coal and Steel

7 May 2014

Lisbon / Portugal

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European Commission
DG Research and Innovation
Research Fund for Coal and Steel**

History of the RFCS

The RFCS Programme (1)

From the past ... European Coal and Steel Community (ECSC)

1952: ECSC Treaty of Paris (validity 50 years)

Expired in July 2002

Levy from coal and steel production

Assets left : ~ 1.6 billion €



The RFCS Programme (2)

... to the present: Research Fund for Coal and Steel (RFCS):

- 2001: Treaty of Nice
- To transfer the ECSC assets (originally paid by industry) to the European Community and utilise the interests generated by these assets (now ~ 2,0 billion € to co-finance research in coal and steel
- To create the RFCS: 1 February 2003



RFCS Background Information

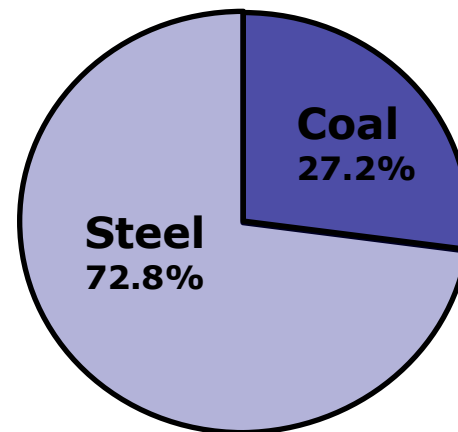
Legal Basis

COUNCIL DECISION of 1 February 2003 establishing measures on the financial consequences of the expiry of the ESCS Treaty and on the Research Fund for Coal *(2003/76/EC)*

COUNCIL DECISION of 29 April 2008 on the adoption of the Research Programme of the Research Fund for Coal and Steel and on the multiannual technical guidelines for this programme *(2008/376/EC)*

WHAT is the RFCS Programme?

- A research fund with a budget of ~ 50 M€ / year
- Not taxpayer money
- Promoting industrial research in the field of *Coal and Steel*
- Open call for proposals *Deadline: mid September each year*
- Outside the FP/H2020 ... yet closely co-ordinated & complementary
- RFCS funding allocation



Eligible Actions:

Research projects (60% funding)

To cover investigative or experimental work with the aim of acquiring further knowledge

Pilot projects (50% funding)

Development of an installation with a view to examining the potential for putting theoretical or laboratory results into practice

Demonstration projects (50% funding)

Construction or operation of an industrial-scale installation for the industrial and/or commercial exploitation of the technology at minimum risk

Accompanying measures (typically 60% funding)

Promotion of the use of knowledge gained in projects of the Research Programme

Who can participate?

Simple rules

- Any legal entity established in the EU28 Member States
- Partners outside EU28 are entitled to participate but without receiving financial contribution

Typical projects

- Focused on industrial participation
- Dedicated and manageable consortium (5/8 partners)
- Average funding 1 – 2 M€ per project
- Duration typically 3 – 4 years



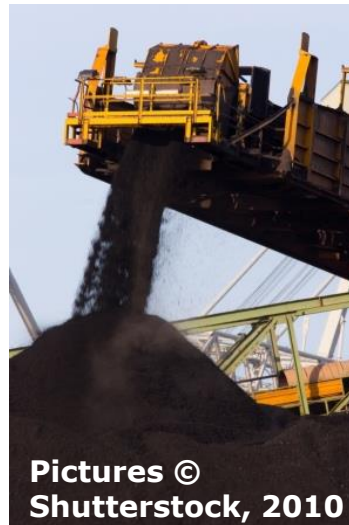
RFCS Overview: Facts & Figures

- **Approx. 350 Grant Agreements running at any one time**
- **563 M€ funding in Coal and Steel research since 2003 \approx 940 M€ total spending**
- **Mixture of industry, academia and research centres**
- **Technical, innovative projects, well defined objectives**
- **Can be complimentary to other funding (FP, H2020, national funds, etc.)**

COAL: Programme Research Objectives

**Management of
external dependence
on energy supply**

**Health and Safety
in Mines**



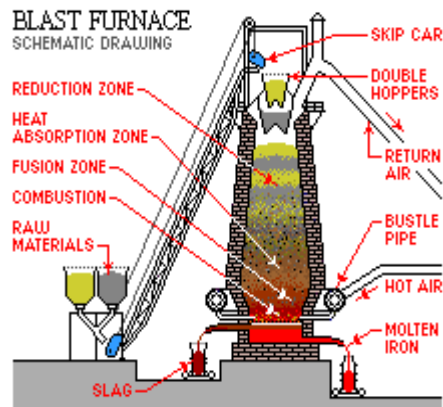
**Improving the
competitive
position
of Community Coal**

**Efficient protection of
the environment
& improvement
of the use of coal
as clean energy source**



Coal means: Hardcoal - Lignite - Coke - Briquettes - Oil Shales

STEEL: Programme Research Objectives



**Conservation of resources
and improvement of
working conditions**



**New and improved
steelmaking
and finishing
techniques**



**Research on
the utilisation
of steel**

Management of the Programme: 3 Levels advising the Commission

**Commission:
DG RTD, Dir D, Unit D4**

**Coal and
Steel
Committee
(COSCO)**

28 Member State Representatives:
give opinion on actions to be
funded, etc.

**Coal and Steel Advisory
Groups (CAG/SAG)**

Representatives from stakeholders:
give advice on the overall programme
management

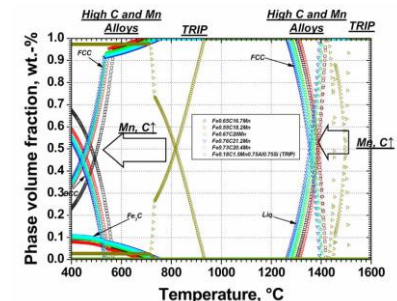
Technical Groups (TGC/TGS)

Technical experts: give advice
on project monitoring

Coal Technical Groups

- TGC 1** Coal mining operation, mine infrastructure and management, unconventional use of coal deposits
- TGC 2** Coal preparation, conversion and upgrading
- TGC 3** Coal combustion, clean and efficient coal technologies, CO₂ capture

- 



Submitting a Proposal

Deadline 15 September 2014

Eligibility and Selection Criteria

Eligibility

- Length and format

Selection

- R&D projects → 5 criteria
- Accompanying measures → 4 criteria

Scoring

- For each criteria from 0 to 5
- If annual priority, then 1 bonus point

0 = Fails/incomplete

1 = Poor

2 = Fair

3 = Good

4 = Very good

5 = Excellent



Research, Pilot & Demonstration Projects

5 criteria, scores 0 to 5

1. Scientific and technical approach

Threshold : if mark < 3 , proposal is rejected !

2. Innovative content

Threshold: if mark < 3 , proposal is rejected !

3. Consistency of resources and quality of partnership

4. Industrial interest, scientific/technical prospects

5. Added value for the European Union, contribution to EU-policies

+ 1 point if proposal addresses at least one of the annual priorities

Accompanying measures **(= Dissemination of knowledge gained,** **workshops/conferences on projects/priorities)**

4 criteria, scores 0 to 5

- 1. Contribution to the objectives of the RFCS programme**
- 2. Scientific, technical and socio-economic prospects**
- 3. Added value and contribution to EU-policies**
- 4. Information on budget and resources**

No threshold on single criteria, but overall threshold of 15/20 !
Annual priority bonus does not apply !

2014 Annual Priorities Coal

1. Management of environmental risks during or after mine closure
2. Prevention and mitigation measures for major accident hazards in coal mines like rock bursts, gas explosion, fire
3. Increasing the efficiency of mine production by utilising Information and Communication Technologies (ICT) for improved process optimisation
4. Improved monitoring of coke oven conditions.
5. Upgrading of coal-derived liquids
6. Technological improvements targeting load flexibility and environmental performance of coal fired power plants
7. Pilot projects validation of emerging and innovating technologies leading to efficiency improvements and CO₂ capture

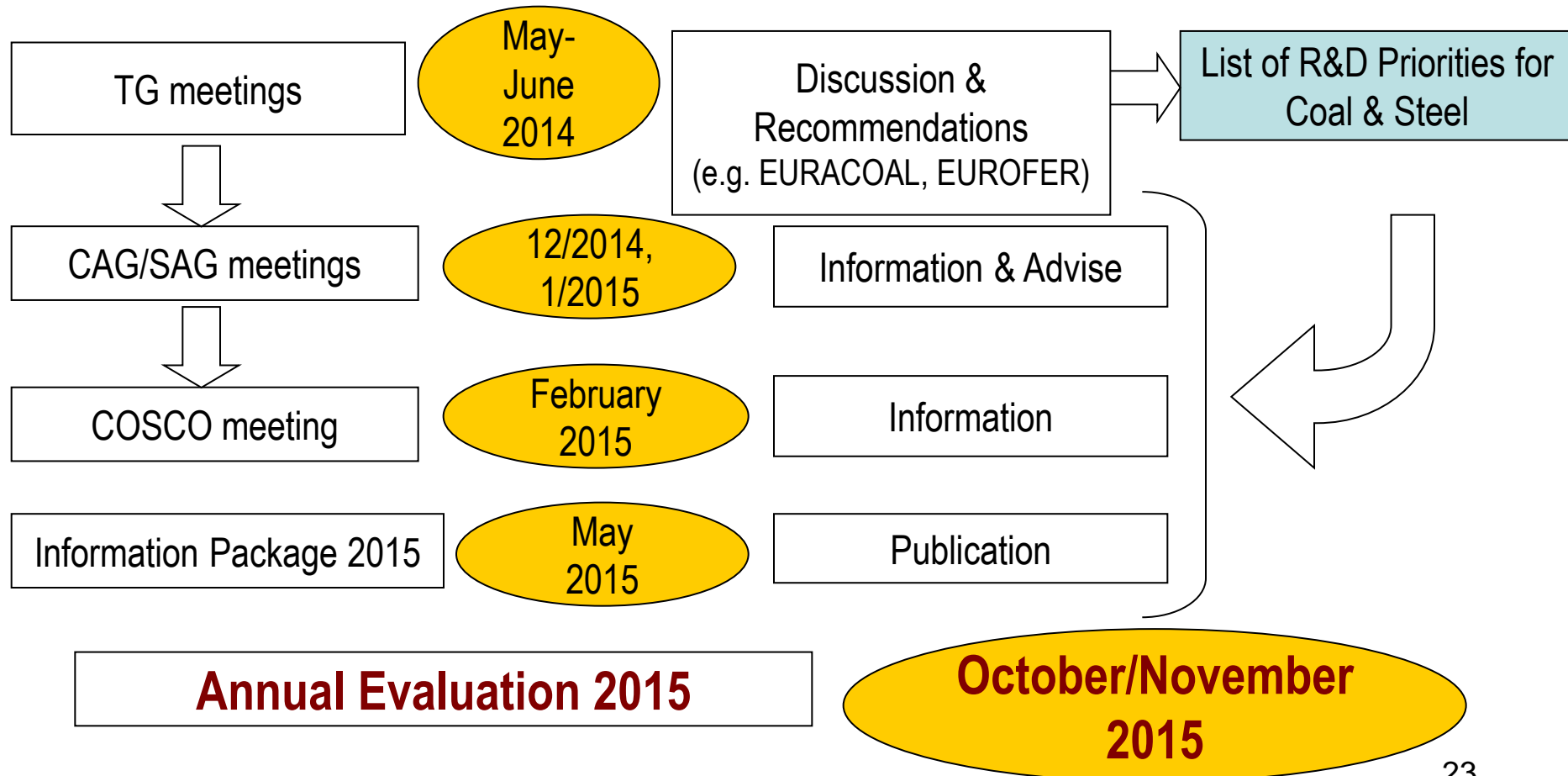
2014 Annual Priorities Steel (1/2)

1. Improved energy efficiency in high temperature processes by recovery of waste heat without drawback on environmental impact compared to present best available technologies
2. Integration of process monitoring (online/offline), control and technical management of steel production using mathematical methods for a multi-criteria optimisation of steel production with respect to at least two of the following aspects: productivity, resource efficiency and product quality
3. New or improved resource efficient processes to transform low quality primary raw materials or secondary raw materials (e.g. slag, dust, scale, sludge, low quality scrap) into valuable products
4. Solutions directly aiming at minimizing the ecological footprint of the Steel Works with respect to one of the following issues: air, water, soil, biodiversity and CO2 emissions
5. Measurement and on-line control of mechanical properties, through either new measurement techniques or improved physical models

2014 Annual Priorities Steel (2/2)

6. Development of new steel grades with improved technological property combinations (e.g. strength, formability, toughness ...) enabling more efficient steel applications (e.g. weight reduction, energy absorption, thermal shock resistance, wear ...)
7. Development of steel solutions for transport, sustainable construction (focusing on energy efficiency and carbon neutralisation) or energy applications (including renewables) with improved life cycle assessment (LCA) results
8. Safety of steel infrastructures (e.g. tubes, pipes, pipelines, vessels, fittings, structural elements) for cost-efficient fluid storage and transportation in the energy sector
9. Improvement of working conditions in steel production through innovative solutions by use of both modelling and monitoring activities linked to health or safety aspects risks management

RFCS Coal R&D Priorities



Evaluation in 3 steps (1)

Each proposal is read and evaluated independently by 3 evaluators



Evaluation in 3 steps (2)

Each proposal is read and evaluated independently by 3 evaluators



A meeting is convened by a Commission officer



Evaluation in 3 steps (3)

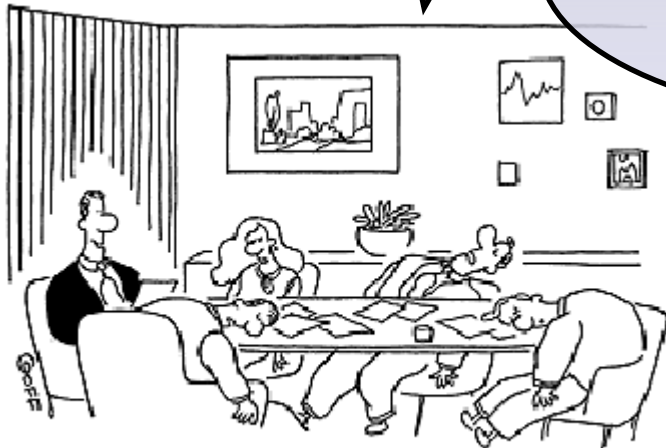
Each proposal is read and evaluated independently by 3 evaluators



A meeting is convened by a Commission officer with the 3 evaluators

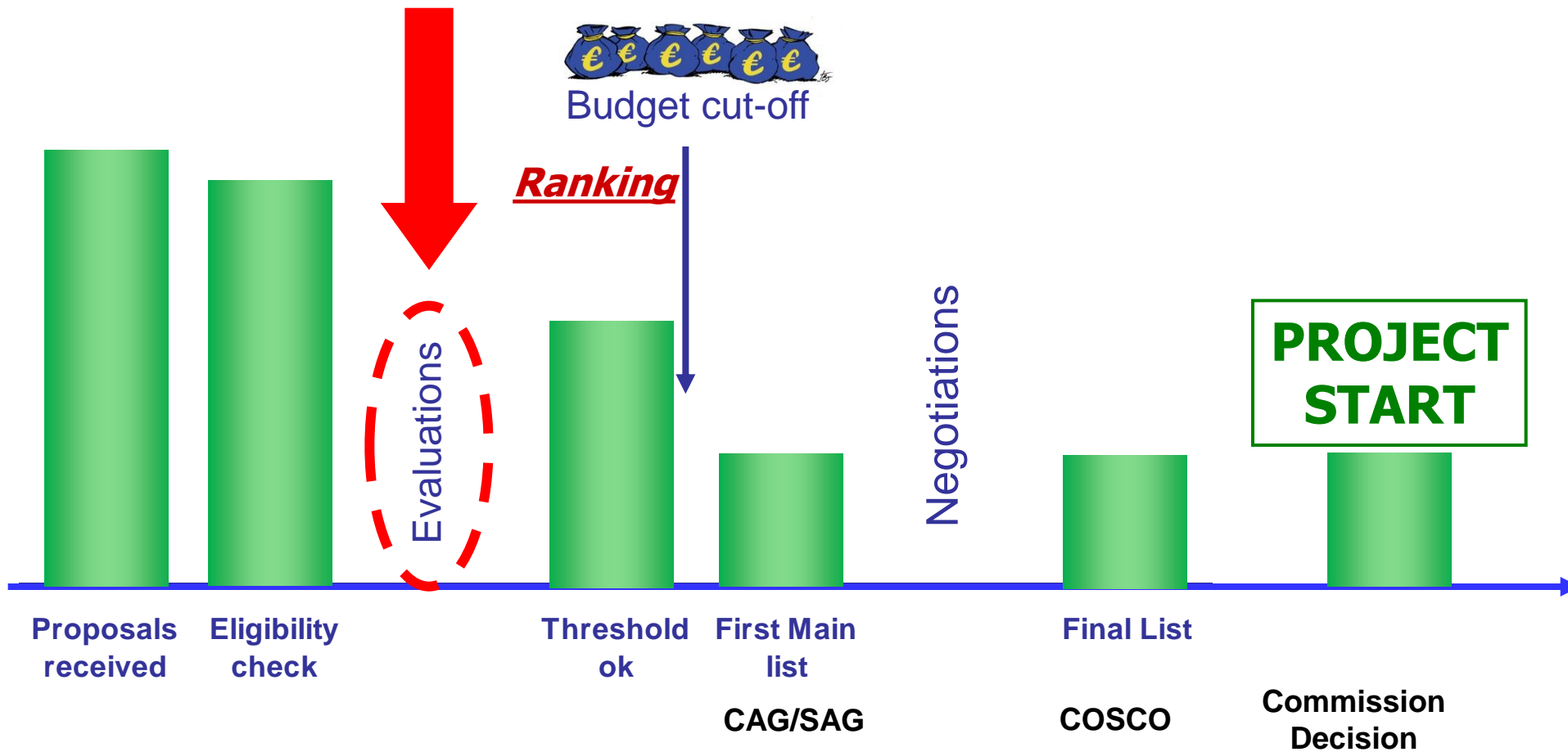


Outcome is summarised in a consensus report



"At last we've reached a consensus!
This meeting is boring!"

Evaluations and Selection Process



Most common weak points

Criterion 1 (Scientific & Technical Approach)

- **State-of-the-art**

- Poorly described or incomplete
- European & worldwide level not considered
- Existing patents not taken into account or referenced
- No prioritisation of reference list



- **Feasibility**

- Poor description/lack of vision on development & validation stages

- **Methods & Techniques, Approach**

- Experimental activities: link/integration & global objectives unclear
- Excessive modelling & simulation on non-validated concepts

Most common weak points

Criterion 2 (Innovative Content)

- Often not so innovative – new ideas necessary
- Real innovative aspects remain unclear
- Incremental research & added value unclear
- Perspective of a wider & general use of expected results: poorly described



Most common weak points

Criterion 3 (Consistency of resources/quality of partnership)

- **Project Scheduling**

- Coherence of task flow
- Timing: either lax or too ambitious

- **Partnerships**

- Industrial partners: sometimes only limited contributions
- (Real) Participation of industrial partners
- Universities: implication in industrial & economic project parts
- Inflated or redundant partnerships
- « Sleeping » partners without real contribution

Workplan

- Deliverables
 - Who is responsible for what?
 - Definition & description of work
- Clear, complete, detailed WP flow diagram is helpful

Most common weak points

Criteria 4 & 5

(Industrial interest & Community added value/policies)

- Lack of knowledge of market deployment
- Evaluation of impact on competitiveness: poor or inexistant
- Quantitative assessment of economic impact: poor or inexistant
- Metrics of success missing (preferably with quantitative criteria) for Go / No Go
- Publication strategy poor (communication, seminars/workshops, website,...)

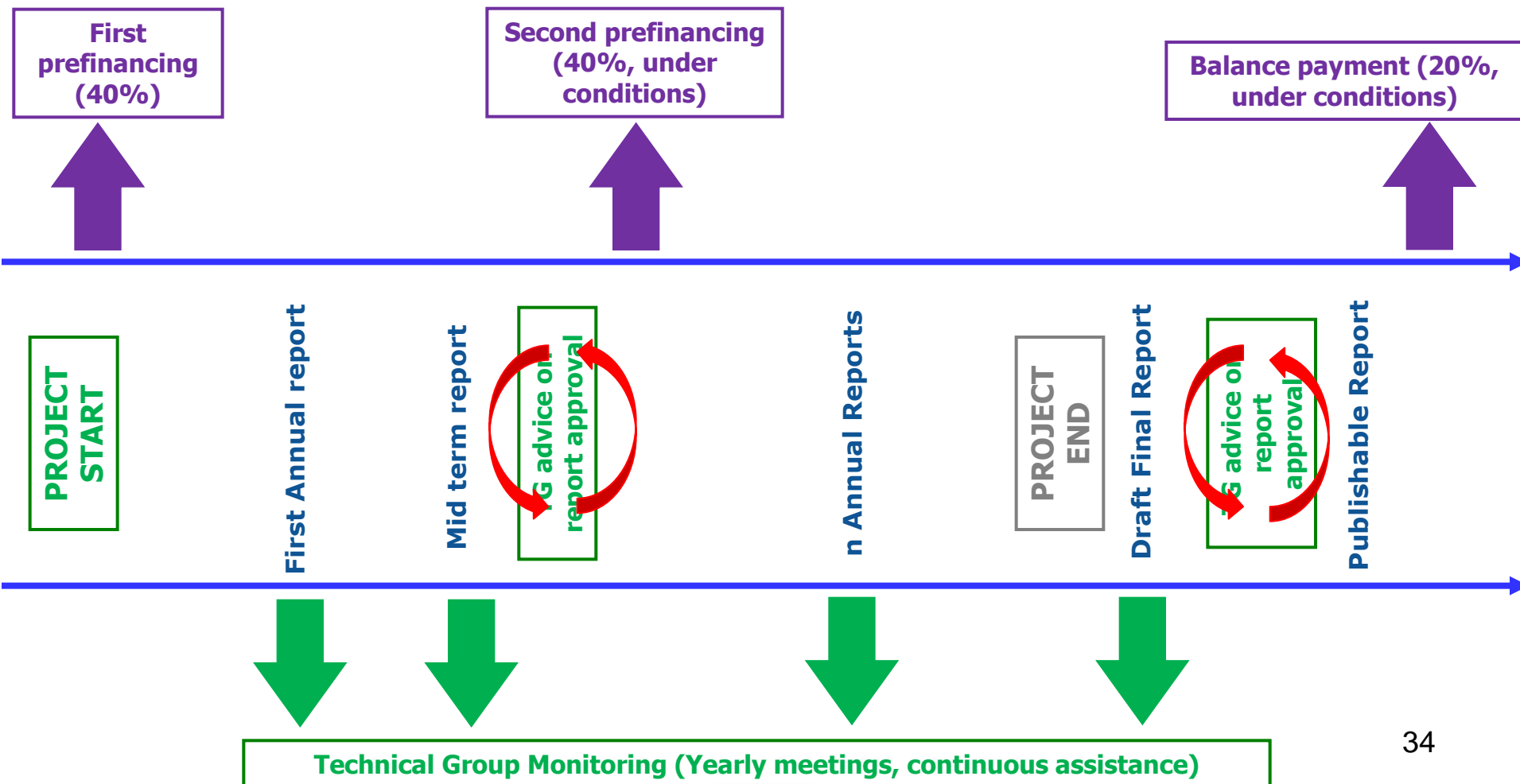
Some Remarks & Advice

- Increase in proposals, constant (or even reduced) annual budget
→ strong competition !
- High quality level of proposals
- **Long process:** start early with experienced partners !
- Descriptions should be **short & concise**, but don't expect the evaluators to dig out necessary information
- Explain improvements in case of resubmission
- **Test your application** by 'neutral' proof-readers
- Make use of the **RFCS projects synopsis**
- **Enrol as an expert (Evaluator)**
- Typical project: Focused industrial subjects, almost problem solving
Dedicated and manageable consortium (5/8 partners)
Average funding ~ 1 – 2 M€

How to submit a proposal

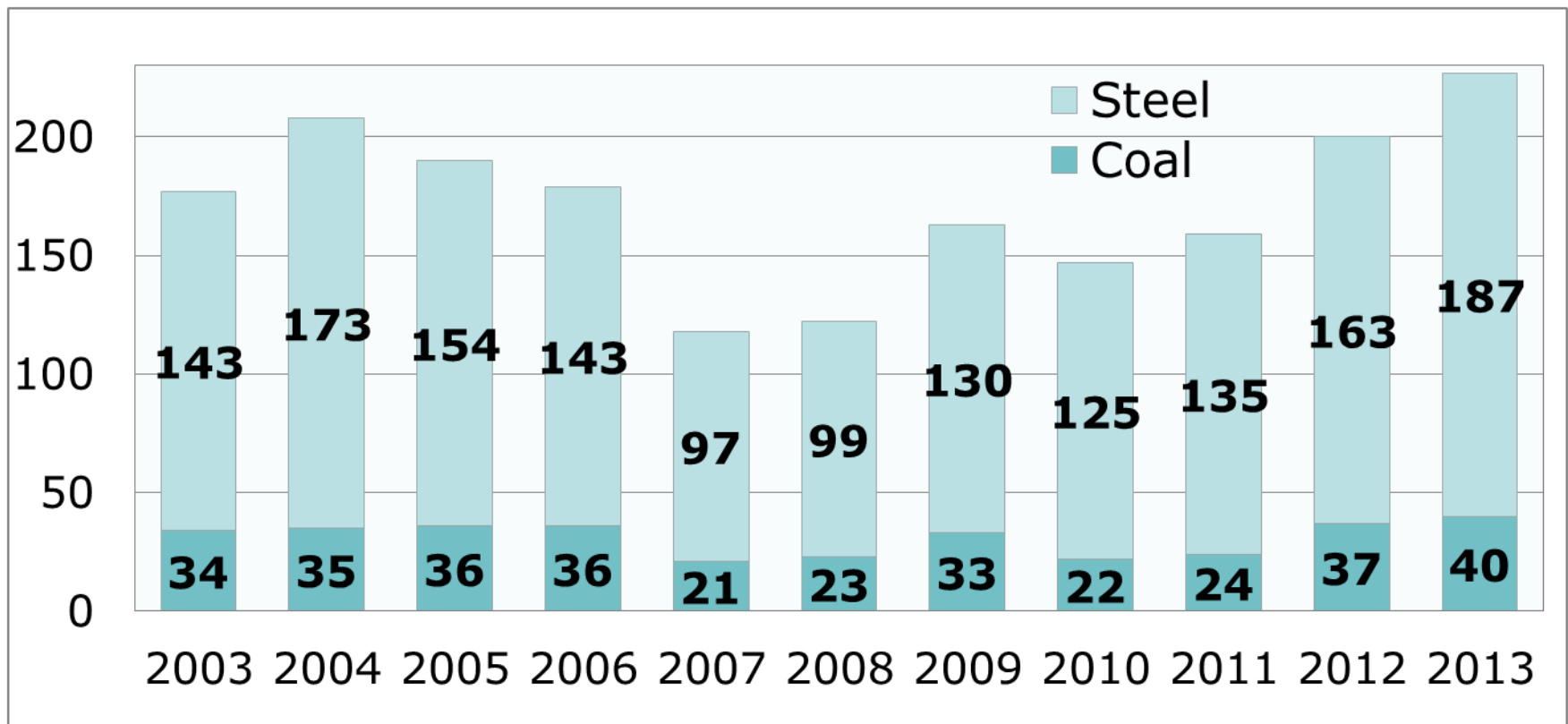
- Since 2011, RFCS proposals are to be submitted electronically.
- To be able to apply to the RFCS, each beneficiary needs a user ID and a **Participant Identification Code** (PIC).
- Unless you have already one (through prior participation in the RFCS or 7th Framework Programme) → request and validate your PIC as soon as possible through the **Unique Registration Facility** (URF).
- Step by step description on Participant Portal

Management of the programme: Project timeline



Results of the 2013 Evaluation

Proposals received



Evolution of Available RFCS Budget

Year	Coal (€)	Steel (€)	Total (€)
2003	16.320.000	43.680.000	60.000.000
2004	16.320.000	43.680.000	60.000.000
2005	15.368.000	41.132.000	56.500.000
2006	14.892.000	39.858.000	54.750.000
2007	14.654.000	39.221.000	53.875.000
2008	14.535.136	38.902.864	53.438.000
2009	14.067.568	37.651.432	51.719.000
2010	14.649.784	39.209.716	53.859.500
2011	16.572.892	44.356.858	60.929.750
2012	15.902.446	42.562.429	58.464.875
2013	14.071.240	37.661.260	51.732.500
2014	13.155.620	35.210.630	48.366.250
Totals	180.508.686	483.126.189	663.634.875

Results of the 2013 Evaluations

Coal	<u>40</u> proposals submitted 10 proposals successful 3 proposals on reserve list 8 proposals above threshold (insuff. funding) 18 proposals under threshold 1 proposal ineligible
Steel	<u>187</u> proposals submitted 31 proposals successful 7 proposals on reserve list 78 proposals above threshold (insuff. funding) 71 proposals under threshold

Portuguese Beneficiaries in RFCS

- Σ RFCS Coal: Participation in 10 projects;
funding 3,0 Mio €
- Σ RFCS Steel: Participation in 67 projects;
funding 13,7 Mio €
- Σ RFCS: Application for 371 projects;
77 successful (21 %)
- RFCS 2013: Application for 5 coal projects;
0 successful
Application for 55 steel projects;
4 successful (7,3 %)

Information Package 2014

Improvements already introduced in 2013 will be confirmed. Moreover:

- *Update of 2014 priorities*
- *New deadlines, time planning*
- *Minor corrections (i.e. typing mistakes) + cosmetic changes*
- *Guidelines on how to improve the administrative and financial information in the proposals in order to shorten the Time to Grant (in case the proposal is successful). New submission forms in line with H2020 (simplification)*
- *Publication foreseen mid-June 2014*

Submission and Evaluation Procedure

SEP System Conclusion

- The system successfully introduced
- Continue to use the SEP system for 2014

Further Developments

- Remote reading and evaluation of proposals by individual experts (introduced 2013)
- Central evaluation (reduced duration of evaluators stay in Brussels) for Consensus Meetings
- Possible use of Rapporteurs for coming evaluations



Research Fund for Coal & Steel

>> Quick Links

Homepage

About the service

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Experts' corner

Events & meetings

Library

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Submission of proposals for 2013

Submission of proposals to the RFCS programme is now open and can be done through the SEP (Submission & Evaluation of Proposals) system platform. Deadline for submission is:

September 17, 2013, at 17:00:00 (Brussels local time)

The links to the SEP system are:

1. If you are a Project Coordinator intending to create and register for the first time the draft of a new proposal, then please use the following link (ECAS authentication required):

[Create a new proposal](#)

2. If you are a participant (including the Project Coordinator) intending to edit/modify an existing proposal, please use the following link which directs you to "My Proposals" page on the Participant Portal of DG Research and Innovation of the European Commission, where you will find the list of all proposals in which you are involved (ECAS authentication required):

[Edit/modify an existing proposal](#)

The following supporting documents and links are available to assist you during the preparation and submission of proposals to the RFCS programme.

- **[RFCS Information Package 2013, volume I](#)**

The Information Package, volume I, is addressed to all applicants and provides the necessary information for the preparation and submission of proposals. Attached to the Information Package you will also find the RFCS Legal Basis, the list of RFCS priorities for 2013, the scope of the Technical Groups, info on the evaluation process and templates of all submission forms.

- **[Quick Guide to the SEP submission system](#)**

General document with basic information on the electronic submission system and on how to contact the service desk in case of problems when using SEP.

- **[Templates of Submission Forms - Part A](#)**

- **[Forms A1 to A4](#)**

These forms are given here for your information only. The actual Forms A to be filled in by the applicants are the editable pdf forms which appear on the SEP platform by clicking on "edit forms" (Step 5 of the submission process, refer to the Information Package for more details).



• **Templates of Submission Forms - Part B**

- **B1 - Proposal overview** 
Download this template, fill it in and upload it as pdf on SEP. This is a mandatory annex for all proposals.
- **B2 - Proposal description** 
Download this template, fill it in and upload it as pdf on SEP. This is a mandatory annex for all proposals.
- **B3 - Technical Annex** 
Download this template, fill it in and upload it as pdf on SEP. This is a mandatory annex for all proposals.
- **B4-1 - Resubmission details** 
Download this template, fill it in and upload it as pdf on SEP. This is a mandatory annex only for resubmitted proposals.
- **B4-2 - Previous Evaluation Summary Report** 
This form is given here for your information only and is not a template to be filled in. The file you will need to upload as Form B4-2 is the pdf file you have received by the Commission services as Evaluation Summary Report following the last evaluation of your proposal. This is a mandatory annex only for resubmitted proposals).
- **B5-5,6,7 - Subcontractors details** 
Download this template, fill it in and upload it as pdf on SEP. This is a mandatory annex only for proposals with subcontractors.
- **2013 Priorities for Coal**  **and Steel** 
Proposals addressing at least one of the 2013 priorities will receive an additional bonus point during the evaluation.
- **Information on the Participant Identification Code (PIC)**
To be able to participate in a RFCS proposal, each organisation needs a Participant Identification Code (PIC). We recommend that, unless your organisation already has one (through prior participation in an RFCS or FP7 proposal), you request and validate your PIC as soon as possible.
 - **Check whether your organisation already has a PIC code.**
 - If not yet registered, **instructions on how to receive a PIC code are available here** .
 - To apply for a new PIC, go to **My Organisation - Register** on the Participant Portal
 - In case you encounter problems during the PIC registration, please send an e-mail to **RTD-VALIDATION@EC.EUROPA.EU** putting RFCS and your organisation in the subject line.
 - Other useful information on PIC are available from the FP7 programme on the page **Participant Identification Code (PIC)**
 - **Info on FP7 statuses** 
- **Other Forms (only needed at negotiation)**
The following forms will be required during the negotiation of proposals retained for funding after the evaluation. They are given here as they could be useful when preparing the table of costs breakdown (B5) and for calculating the hourly rates (B6).
 - **Form B5 - Financial data** 
 - **Forms B6 - Hourly rate calculation** 

Future Planning

- Signature of Grant Agreements: start June 2014
- Earliest Pre-financing: after receipt of core part signed by coordinator and all forms from partners
- Start of most projects: 1 July 2014
- Deadline for the Call 2014: 15 September 2014
- Consensus meetings in Brussels: Coal evaluation week October 2014, Steel evaluations
- 15th CAG meeting: 3 December 2014 (tentative)
- 15th SAG meeting: 16 January 2014 (tentative)
- 15th COSCO meeting: 12 February 2015 (tentative)

Experience with RFCS

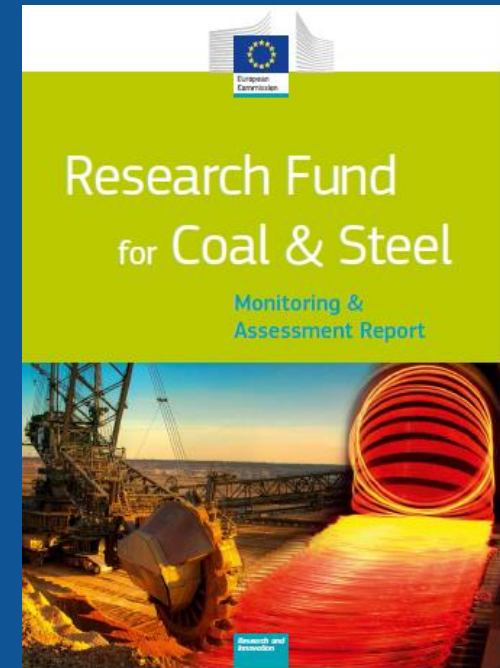
Monitoring Report presented in Luxembourg in September 2012 for comments (10th Anniversary RFCS).

Assessment Report prepared following on site visits and detailed assessment running throughout 2012.

Both reports (combined) now available in electronic format on our website.

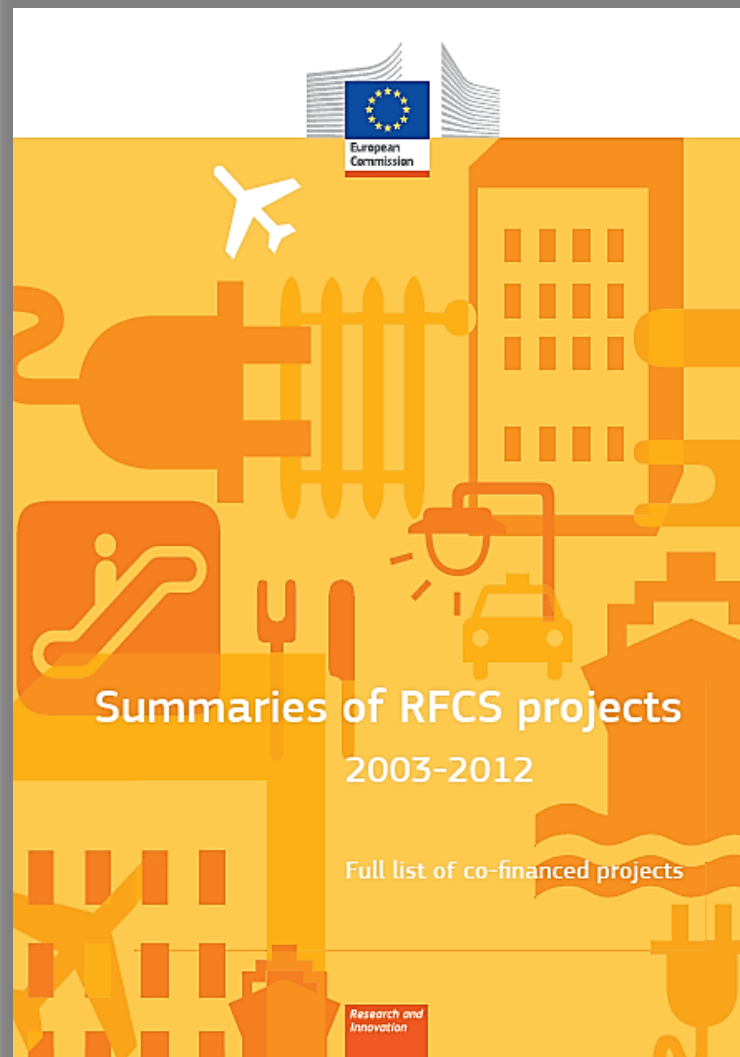
**ON 24 September 2013 the
Monitoring and Assessment
report was published**

**available from:
EU Bookshop, or RFCS website**





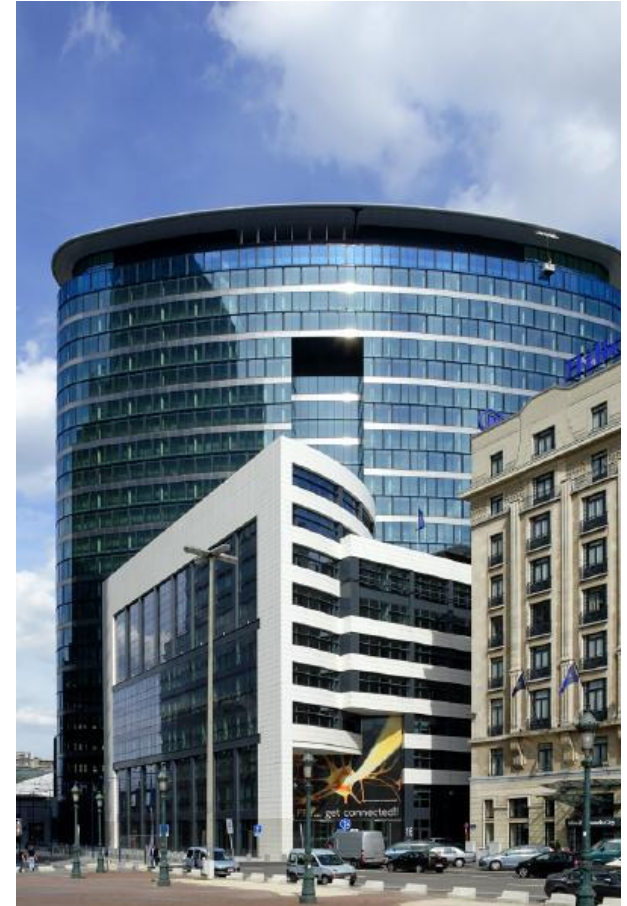
European
Commission



2014 Evaluations

Location: Covent Garden

- **October 2014 (Coal)**
- **November 2014 (Steel)**



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Web Links / RFCS Info

- **RFCS website:** <http://cordis.europa.eu/coal-steel-rtd/>
- **Information Package**
http://cordis.europa.eu/coal-steel-rtd/infopack_en.html
- **Latest published technical reports:**
<http://bookshop.europa.eu/>
<http://cordis.europa.eu/search/index.cfm>
- **Synopsis of ongoing RFCS projects:**
http://cordis.europa.eu/coal-steel-rtd/synopsis_en.html
- **Register as Technical Expert:**
<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

Thank you for your attention !