UNECE, 14th session of Group of Experts of Coal mine Methane
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Research Fund for Coal and Steel (RFCS)
Research needs in field of coal mine Methane

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Origins and implementation of RFCS

➢ **1951**: the Treaty of Paris establishing ECSC is signed. It enters into force in 1952

➢ **2001**: Treaty of Nice, transfer the ECSC assets to the EC (Protocol 37)

➢ **2003**: Creation of the RFCS (1/2/2003)

➢ **Today**: ~ 1.6 billion € assets and interests to co-finance research in coal and steel for ~ 40 M€ per year

➢ ~150 RFCS on-going R&I projects

➢ 765m€ have been made available to finance research projects in the coal and steel industry over past 16 years
RFCS Today

➢ Balanced industry, academia and research centres consortia
➢ Technical, innovative sectorial projects
➢ RFCS is open to the world but funding only for EU MS organisations

Managed by DG RTD, Unit D4 in collaboration & with inputs from:

- **COSCO** - Coal and Steel Committee
- **CAG** and **SAG** - Coal and Steel Advisory Groups
- **TGs** - Coal and Steel Technical Groups (Monitoring of projects)
RFCS 2019 Call for Proposals

- Info Pack was published in June on the EC Funding and Tender Portal.
- Deadline for submission of proposals was 17 September (17.00):
  - Research projects (max. 60% funding)
  - Pilot & Demonstration projects (max. 50% funding)
  - Accompanying measures (up to 100% funding)
- Outside the FP/H2020 but closely co-ordinated & complementary (e.g. paperless Grant Agreements, use of EU Participant Portal,...)
RFCS 2019 Info Pack
New Structure Coal Technical Groups

TGK 1 - Post-mining issues, safe and productive coal mining operations

TGK 2 - Environmental, technical and economic issues related to coal treatment and use

The new structure was advised by CAG and SAG and endorsed by COSCO. It was implemented in the 2019 RFCS Information Package.

2019 Coal Priorities

1.1 Coal Regions in Transition – sustainable energy production and integration, the circular economy and land reclamation

1.2 Pilot/Demonstration projects implementing clean coal technologies (CCTs) that meet EU policy objectives

1.3 Addressing occupational health and safety or environmental risks during or after coal mine or coal power plant operation
Coal Challenges

➢ **COP21** – Paris agreement:
  ➢ to pursue efforts to keep global temperature increase well below 2°C and trying to limiting it to 1.5°C;
  ➢ EU reduction of GHG emissions by at least 80% by 2050;
  ➢ Expected further decrease in the **EU coal production and consumption** (possible alternative use of coal?)
  ➢ How to ensure growth, competitiveness and sustainability vis-à-vis other energy sources and requirements from Energy Transition?;
  ➢ Restructuring after mine closure;
  ➢ Modernisation Research in Coal and Steel.
A Climate Neutral Europe by 2050

➢ EU economy needs to be resource efficient and circular. Transition to digitisation and technological change. Development of less polluting and less energy-intensive technologies.

➢ Platform and pilot projects on coal and carbon-intensive regions in transition aim to ensure a fair transition for all.

➢ The EC will explore how the assets of the European Coal and Steel Community in liquidation could support breakthrough technologies for reduction of GHG emission and clean steelmaking.

RFCS Future Developments

  - A review of the Research Fund for Coal and Steel and will provide recommendations for the future of RFCS.
  - The findings of the exercise will also give input to the synergies between RFCS and Horizon Europe.

- **Revision of RFCS Legal Bases** with the aim to:
  - Bring up to date of objectives for Coal and Steel in the light of plans of new Commission
  - Explore new avenues to ensure sufficient funding of RFCS activities.
CoalTech2051

- **Accompanying measure** started 1/7/2018 lasts 24 months

- The European Network of Clean Coal Technologists has not only the aim to support the **energy transition** in the coal regions, but also to explore opportunities coming from the "energy transition".

- Exploit coal in the EU with **lower CO2 emissions**, responding to EU policies.

- Identify **new technologies and incremental research opportunities** to lead a transformational change in the EU coal mining.

- Early 2020 final seminar with **strategic agenda** and **Recommendations on RFCS management** for EC and Stakeholders.
Running RFCS Methane projects

**RESEARCH PROJECTS (Max 60% funding)**

- **METHENERGY PLUS (2017):** Methane recovery and harnessing for energy and chemical uses at coal mine sites
  - Coordinator: University of Oviedo (10 partners)
  - 36 months (from 1/7/2017) and budget EUR 2,734,328;

- **Megaplus (2018):** Unconventional methane production from deep European coal seams through combined Coal Bed Methane (CBM) and Underground Coal Gasification (UCG) technologies
  - Coordinator: Glowny Instytut Gornictwa (GIG) (7 partners)
  - 36 months (from 1/6/2018) and budget EUR 2,899,261;
Running RFCS Methane projects

Pilot and Demonstration project (Max 50 % funding)

- **DD-MET (2019)**: Advanced methane drainage strategy employing underground directional drilling technology for major risk prevention and greenhouse gases emission mitigation
  - Coordinator: Instytut Nafty I Gazu; 5 partners
  - 42 months (from 1/7/2019) and budget EUR 5,217,586;
  - One Russian partner* that does not receive RFCS funding

* Federal State Budgetary Institution Of Science Institute Of Comprehensive Exploitation Of Mineral Resources Russian Academy Of Sciences