



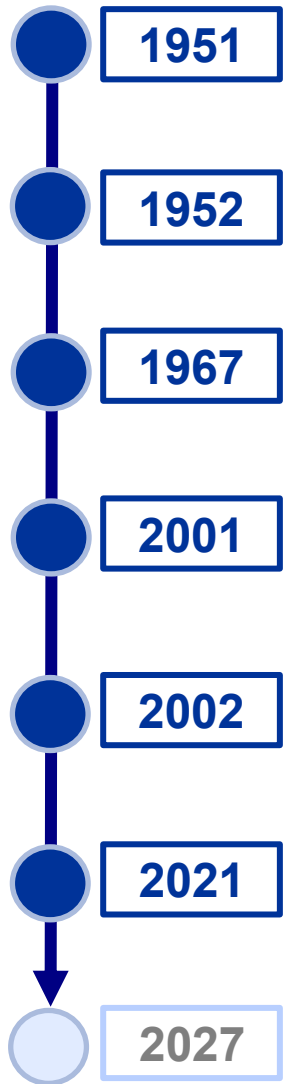
Research Fund for Coal and Steel

State of play & future funding opportunities
for the European steel sector

3 June 2026
Bologna, Italy

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Head of Unit
REA. B1 Future Low Emission Industries

From ECSC to RFCS – History & context



1951

Treaty of Paris

ECSC established by 6 western European countries



1952

Entry into force

Headquartered in Luxembourg - First step in European integration

1967

Merger Treaty

ECSC became one of 3 European Communities

2001

Treaty expiry

2002

RFCS establishment

ECSC assets transferred to RFCS



2021

RFCS first reform

2027

RFCS second reform
(in progress)

RFCS - Research Fund for Coal and Steel

Funding



Financed through revenues of former ECSC assets - outside the EU Multiannual Financial Framework.

Own Legal Framework



Current legal basis: 3 Council Decisions (2021). Revised legal basis expected 2027

Mission



Support R&I in the coal and steel sectors, in line with the ECSC legacy.

The RFCS Research Programme



Societal Benefits

- **Reduced emissions** and energy consumption
- **Improved waste management**, increased recycling
- **Reduced environmental footprint of steel industry and safety concerns**



Networks

- **Efficient platform for collaboration between industry and academia**



Leverage Effect

- **€1 RFCS funding**
→ # **€3 beneficiaries' benefit**
- **€1 RFCS beneficiaries' R&I spending**
→ # **€5 benefit**

The RFCS STEEL: current objectives



New, sustainable and low-carbon steelmaking and finishing processes

Art. 8



Development of high-quality steel grades for innovative applications

Art. 9



Conservation of resources, protection of the environment and circular economy

Art. 10



Management of work force and working conditions

Art. 10a

RFCS alignment with EU policy goals

RFCS calls for proposals are designed to fund projects that not only advance technical innovation in coal and steel but also **align with EU policy goals** as defined by:

European Green Deal & Clean Industrial Deal

The CID acts as the industrial implementation of the EGD by 2050. RFCS funds the breakthrough low-carbon tech required for both, beside its focus on protecting the environment, and ensuring a just transition.

Steel and Metals Action Plan

EU roadmap to **strengthen the competitiveness and sustainability of the steel and metals industry**.
Focus on decarbonising production, supporting innovation, and ensuring industrial resilience following the **New Industrial Strategy**, **Net-Zero Industry Act** and **REPowerEU** to expand renewable energy and hydrogen supply.

Emissions Trading System (ETS) & Carbon Border Adjustment Mechanism (CBAM)

Decarbonisation is driven by ETS, which through CBAM aligns carbon costs for imports and strengthens incentives for low-carbon steel.

Critical Raw Materials Act

Supports supply chain resilience and circularity, both essential for sustainable steel production.

Clean Steel Partnership (CSP)

Public-private partnership between the EC, the steel industry, and research institutions.
Aim to **reduce CO₂ emissions in steel production** through innovative technologies.

Type: Public-private co-programmed European partnership under Horizon Europe.

Lead DG: RTD

Co-lead DG: GROW

Private side: European Steel Technology Platform (ESTEP).

Launch: MoU signed on 9 August 2021 (calls in WP 2021/22)

Budget: 1700 M€ (350 M€ HE + 350 RFCS + 1 B€ Private)

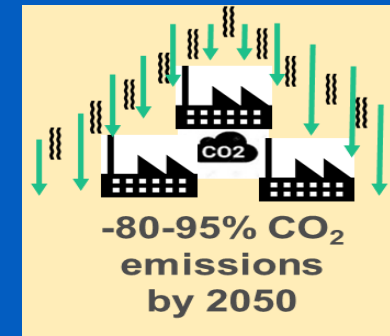
General objective: Develop technologies at TRL8 to reduce CO2 emissions stemming from EU steel production by 80-95% compared to 1990 levels.

Challenge: Introduce major technological breakthroughs and innovation.

CO2 emissions: the steel industry is responsible for around 5% of CO2 emissions in the EU and 7% globally.

EC Policy:

- EU Green Deal
- Fit for 55
- REPowerEU
- Net Zero Industry Act
- Critical Raw Materials Act
- Clean Industrial Deal
- Steel and Metals Action Plan
- Industrial Accelerator Act



EU funding 2021-2027



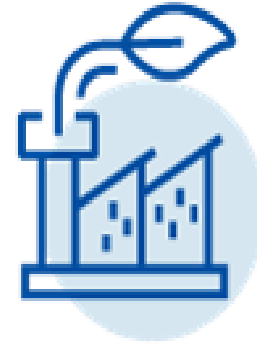
350 M€



350 M€

1 B€ of private financial commitment

Research objectives of the Clean Steel Partnership



Cross cutting issues:
digitalisation, skills and social innovation in the steel sector

CO₂ neutral iron ore reduction
(Increasing the use of pre-reduced iron carriers)

Technologies to improve **energy efficiency**, increase heat recovery and enhance Process Integration (PI) approaches in steel production

Advanced steel alloys for special applications

Circular economy and sector coupling solutions to meet the zero-waste goal for steelmaking

Carbon capture of steel CO/CO₂ gases

CSP-1

CSP-2

CSP-3

CSP-4

CSP-5

CSP-6

The RFCS Steel: Expected impact

Direct relevance to achieving the **European Green Deal goals** and the **full de-carbonisation process** of the steel sector for climate neutrality.

Maintain or increase **European competitiveness.**



RFCS funding opportunities

Two calls for proposals per year:

Annual call

- Funds Accompanying Measures (100% EC funding), Research projects (60%) and Pilot and Demonstration projects (50%)
- An annual budget of **40 MEUR**

Big Tickets calls

- Fund Pilot and Demonstration projects only (50 % EC funding)
 - An annual budget of around **135 MEUR**
- Flexibility in the multi-annual allocation of total budget for the period 2021-2027

RFCS calls: who is eligible for funding



EU MEMBER STATES

Entities can participate and can receive funding



CANDIDATE COUNTRIES

Entities can participate without receiving funding

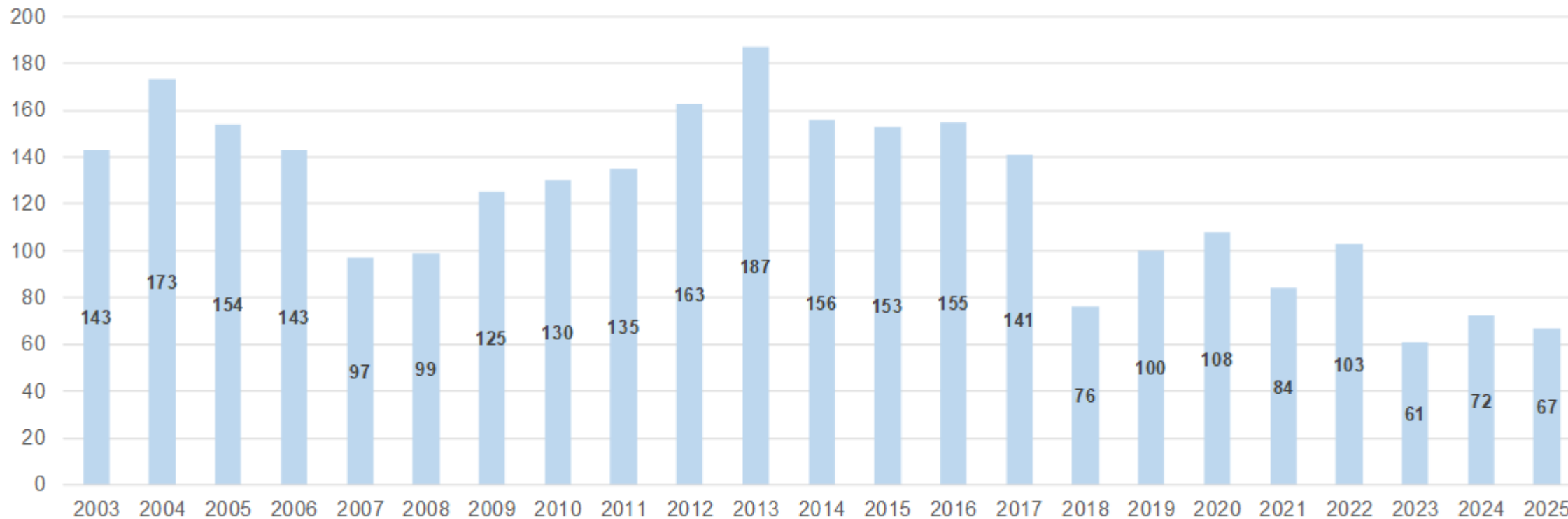


THIRD COUNTRIES

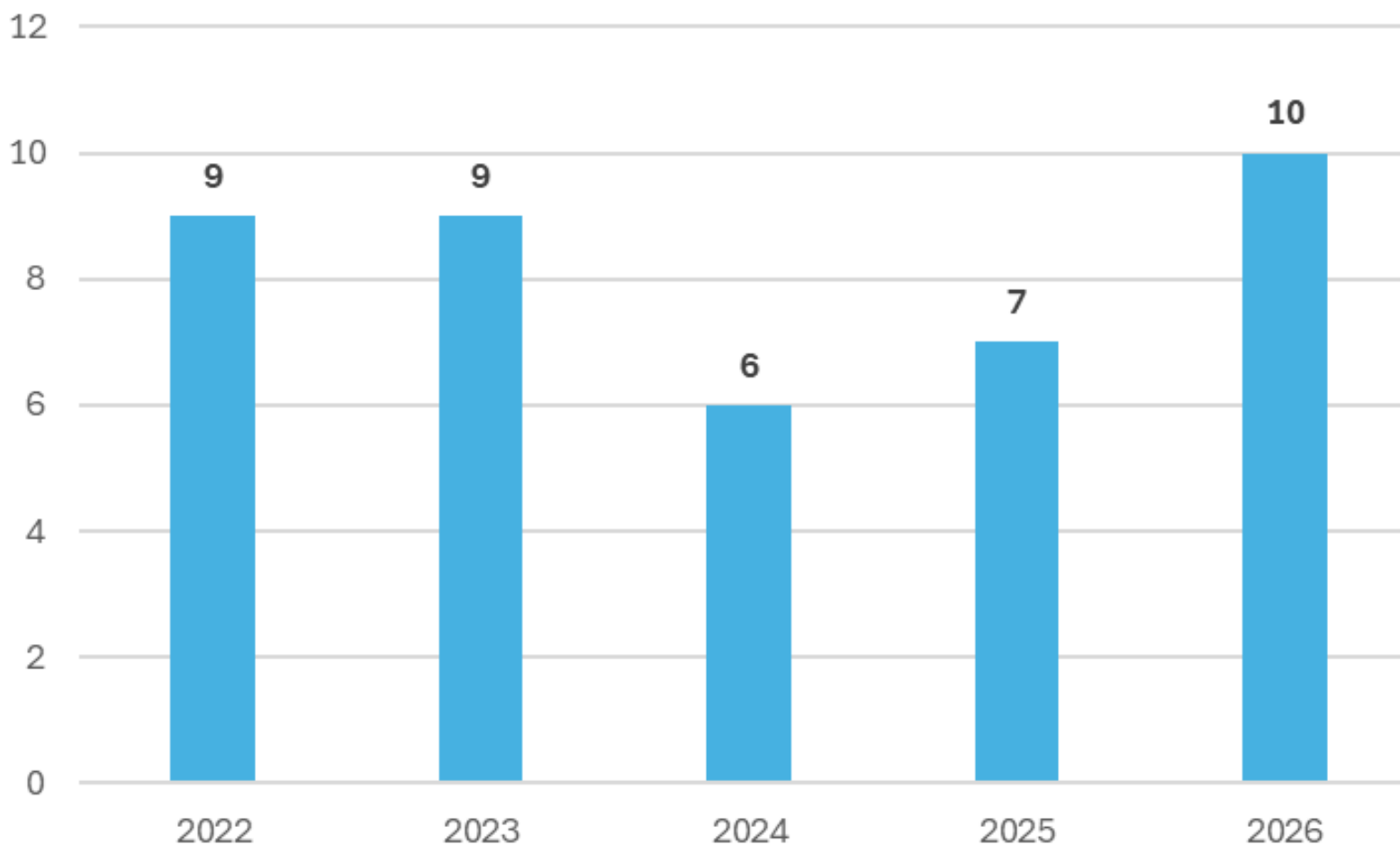
Entities can participate **without receiving funding**, provided that such participation is **in the European Union's interest**.

 The United Kingdom is also considered as a Third Country in RFCS

Evolution over the years of the number of Steel proposals received (Annual call)



Evolution over the years of the number of Steel proposals received (Big Ticket calls)

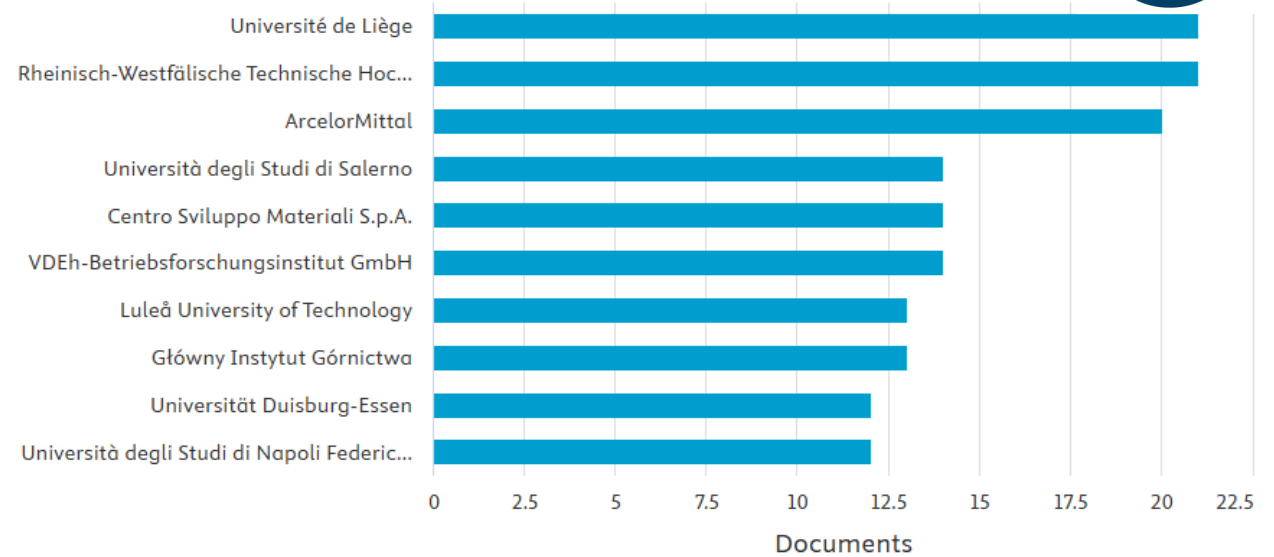


RFCS publications trends

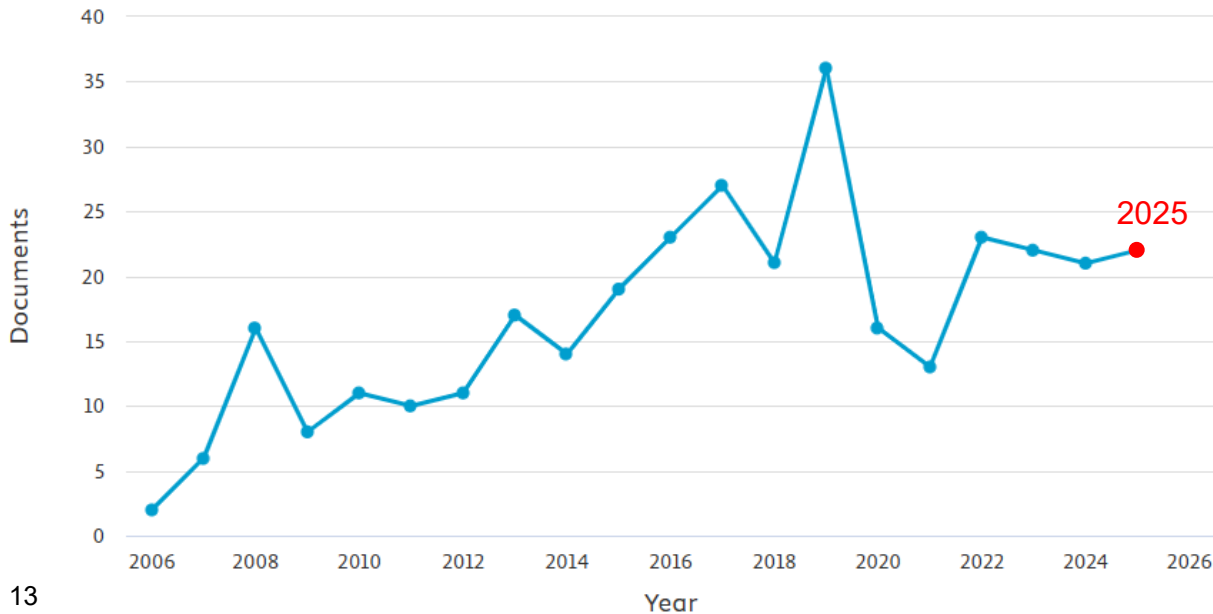
- ✓ **Source:** Scopus-indexed research papers with specific RFCS funding attribution.
- ✓ **Scope:** Covers both coal and steel sectors.
- ✓ **Momentum:** Clear upward trend in scientific output over the last decade.
- ✓ **Industrial fund:** Less priority on scientific papers; the core focus on IPR/patents, standards, and demonstrators.
- ✓ **Diverse impact:** Significant research output beyond engineering, notably in materials science, earth sciences and computer science.

Documents by affiliation

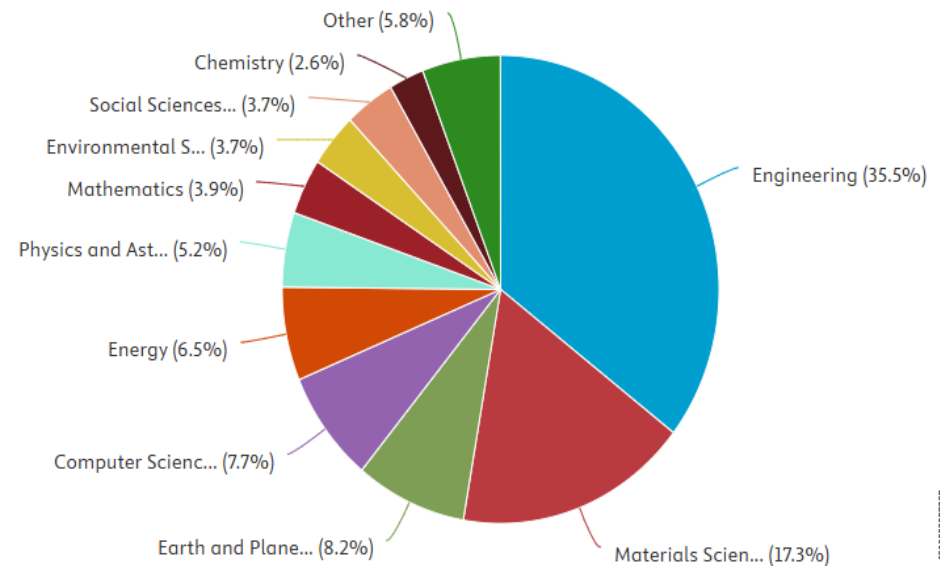
Compare the document counts for up to 15 affiliations.



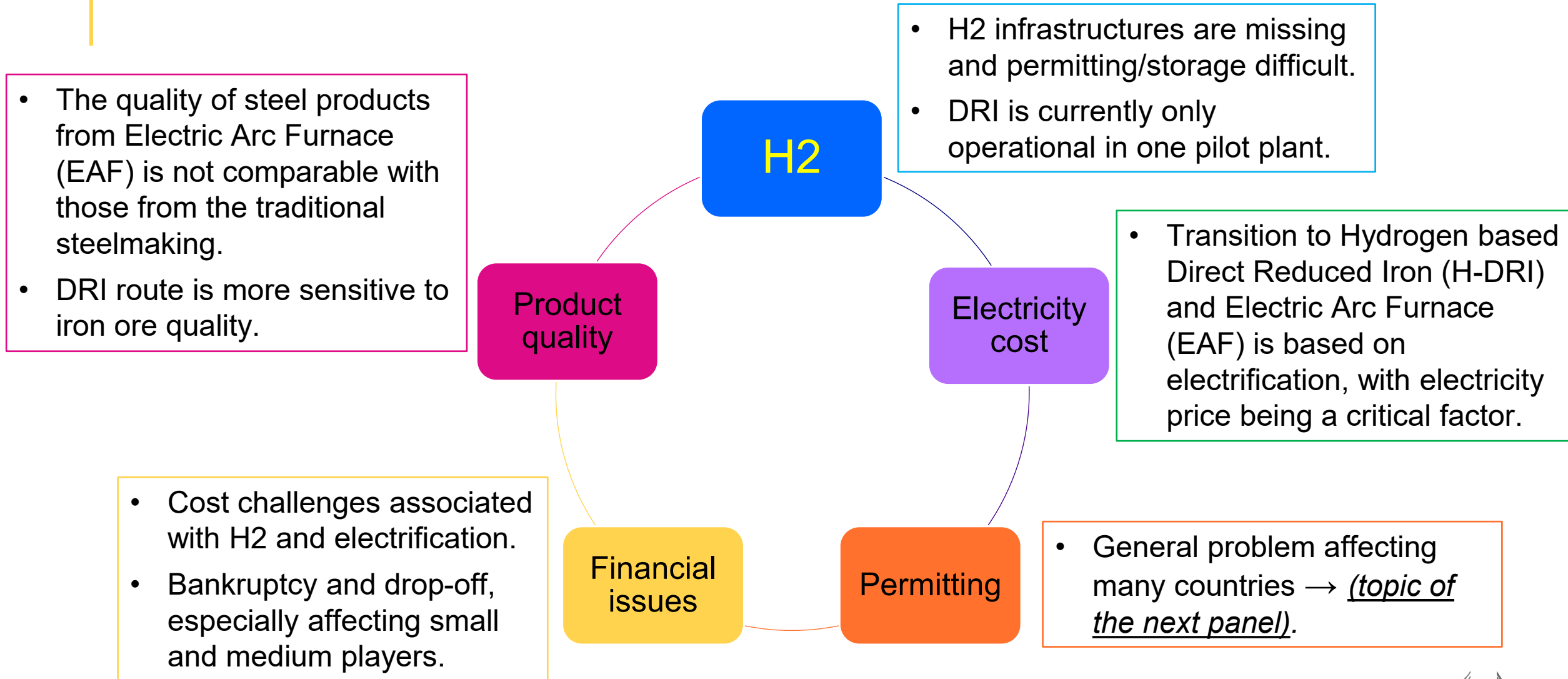
Documents by year



Documents by subject area



Common Issues among research Steel projects



Upcoming RFCS reform (2027-2034) - key elements



- Maintain **definitions** of coal and steel
- Maintain **programme committee** (COSCO) and **advisory groups** (CAG-SAG)
- **Yearly calls with two deadlines** per year (maintain Annual Calls and Big Tickets approach) with a **less prescriptive** 2-year work programmes.
- **Simpler research objectives** (unchanged scope) and **dual use** (separate topic).
- **Higher financing rates** aligned with Horizon Europe proposal up to 70% for industry, 100% for SMEs, 100% for non-profit.
- **Remains industry-led**, with clear conditions set in work programmes and calls.
- **Mutual Insurance Mechanism**: reduce risks in case of partner default and increase the pre-financing.
- Allocation of up to **EUR 120 million / year**, with unchanged shares for coal and steel: **27.8% / 78.2% respectively**.
- Work programmes and calls to **continue until 2034**.



RFCS - feedback to policy



<https://data.europa.eu/doi/10.2848/0557021>



<https://data.europa.eu/doi/10.2848/5815364>

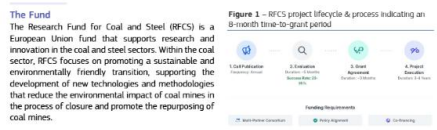


KEY MESSAGES FOR POLICYMAKERS

- RFCS projects support EU policies like the Methane Regulation by advancing technologies and harmonised measurement standards.
- A tailored just transition approach supports workers and communities through training and re-skilling in emerging technologies, preserving knowledge and skills.
- A strong feedback loop between industry, researchers, and policymakers ensures R&I efforts align with policy needs, identifies knowledge gaps, and informs decisions.

"The transformation is happening here and now - we are in the middle of it, but at the same time we are aware that it is a process that is still ahead of us. We are not running away from this challenge. However, we know that it must be done responsibly - so as not to lead to a catastrophic situation in the region." Polish Minister of Industry Marzena Czamecka at the RFCS event in Jastrzębie-Zdrój

The fund supports a diverse project portfolio focusing on environmental sustainability, including methane leakage reduction, environmental restoration, mine infrastructure repurposing, and raw material recovery from mining waste. Currently, the RFCS is supporting over 30 projects in the coal sector, with a total funding commitment of over €120 million. These projects aim to support the European Union's main policy objectives, including the achievement of a climate-neutral economy by 2050, the reduction of greenhouse gas emissions, and the promotion of sustainable growth and development.



<https://data.europa.eu/doi/10.2848/7851061>



<https://data.europa.eu/doi/10.2848/5843295>



<https://data.europa.eu/doi/10.2848/8540830>

RFCS Big Tickets 2025 - Steel

RFCS 2025 Big Tickets Steel: submission statistics



Proposals submitted

7



Call budget

100 MEUR



Requested EC contribution

63 MEUR



Applicants in total

48

29% resubmission rate

RFCS 2025 Big Tickets Steel: statistics on proposals selected for funding

5 proposals selected for
funding



success rate **71%**



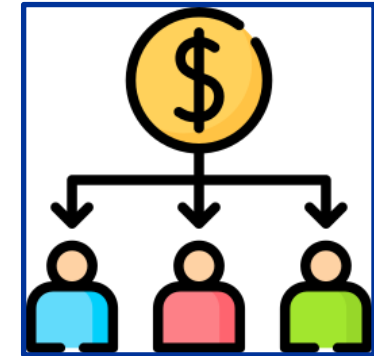
Call available budget
100 MEUR



Total proposals cost
66 MEUR



EC contribution
33 MEUR



N° of beneficiaries
42

RFCS Annual Call 2025 - Steel

RFCS 2025 Annual call Steel: submission statistics



Proposals submitted

67



Call budget

29 MEUR



Requested EC contribution

129 MEUR



Applicants in total

484

45% resubmission rate

RFCS 2025 Annual Call Steel: statistics on proposals selected for funding

29 proposals selected for
funding



success rate 43 %



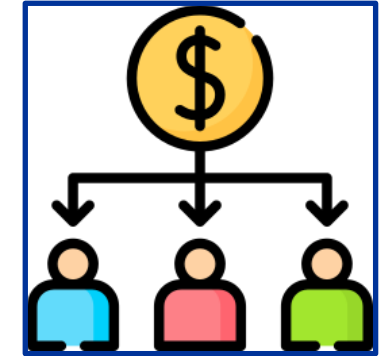
Call available budget
29 MEUR



Total proposals cost
78,9 MEUR



EC contribution
47,3 MEUR



N° of beneficiaries
215

Thanks to the application of the
flexibility clause.

Examples of RFCS projects

(1) Hy4Smelt



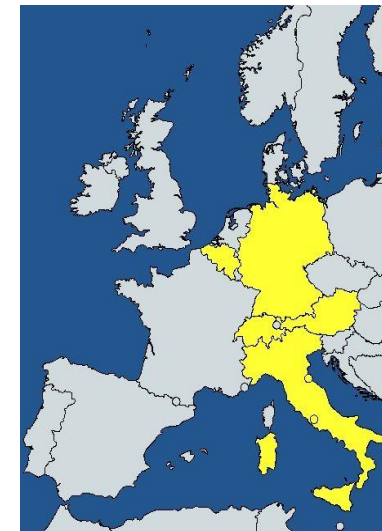
= Hydrogen-based fluidised bed direct reduction of ultra-fine iron ores and smelting to green hot metal

RFCS Big Ticket for steel

Date: 2025 – 2029

Budget ≈ 50 MEUR

Challenge addressed:
Decarbonisation



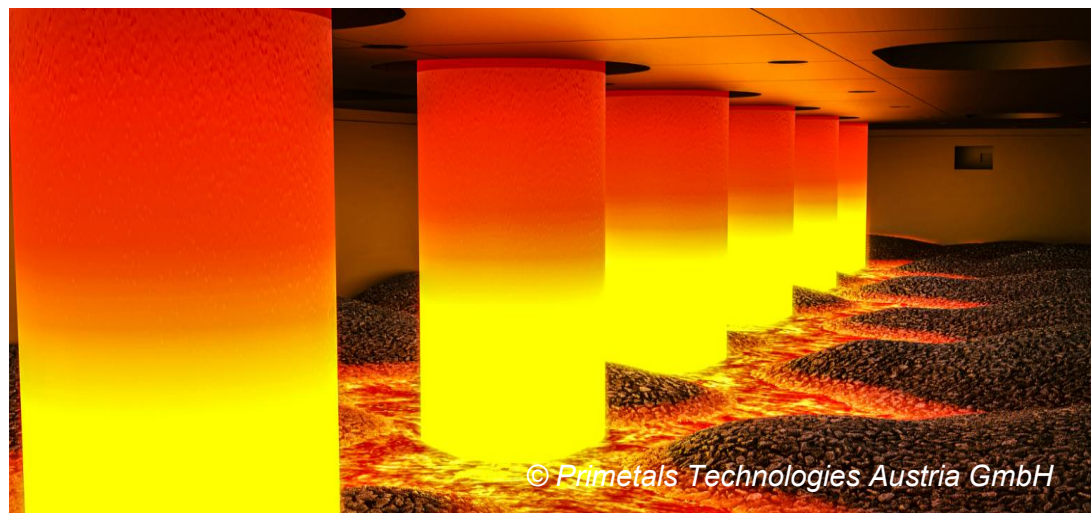
Consortium:

Steel Industry	RTO	Industrial Supplier	Academia / Association
<ul style="list-style-type: none"> voestalpine 	<ul style="list-style-type: none"> K1-MET 	<ul style="list-style-type: none"> PRIMETALS (coordinator) LOESCHE CEMEX 	<ul style="list-style-type: none"> Scuola Superiore Sant’Anna Università del Salento Bauhaus Universität Weimar ESTEP



Main Objectives:

- Green hot metal demonstration
- Ultra-fine ore direct processing
- Plant integration & slag valorization



© Primetals Technologies Austria GmbH



(2) HYDREAMS



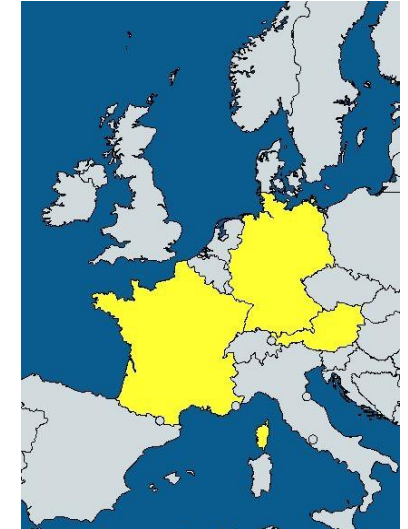
= Clean hydrogen and digital tools for reheating and heat treatment for steel

RFCS Big Ticket for steel

Date: 2023 – 2027

Budget ≈ 8,5 MEUR

**Challenge addressed:
Decarbonisation**



Consortium:

Steel Industry	RTO	Industrial Suppliers	Academia
<ul style="list-style-type: none"> ▪ UGITECH (coordinator) ▪ ASCOMETAL ▪ DEUTSCHE EDELSTAHLWERKE 	<ul style="list-style-type: none"> ▪ HALIAS ▪ GENVIA ▪ BFI 	<ul style="list-style-type: none"> ▪ MESSER ▪ CALDERYS 	<ul style="list-style-type: none"> ▪ TU GRAZ

Main Objectives:

- Decarbonisation of steel production by integrating clean hydrogen combustion technology
- Demonstration and Scaling of hydrogen combustion at TRL7
- Techno-Economic Assessment of clean hydrogen technologies



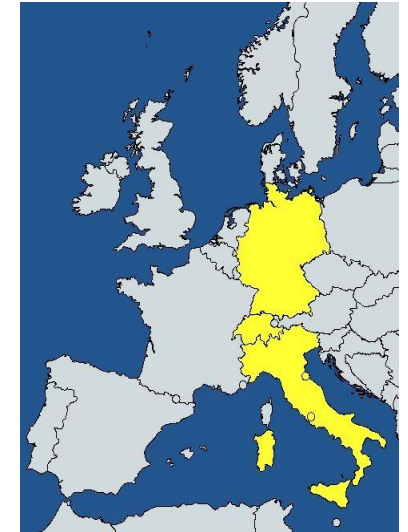
(3) H2Loop



= Sustainable decarbonisation of integrated steel plants by hydrogen production from chemical looping

RFCS Big Ticket for steel
Date: 2025 – 2029
Budget ≈ 12,5 MEUR

Challenge addressed:
Decarbonisation



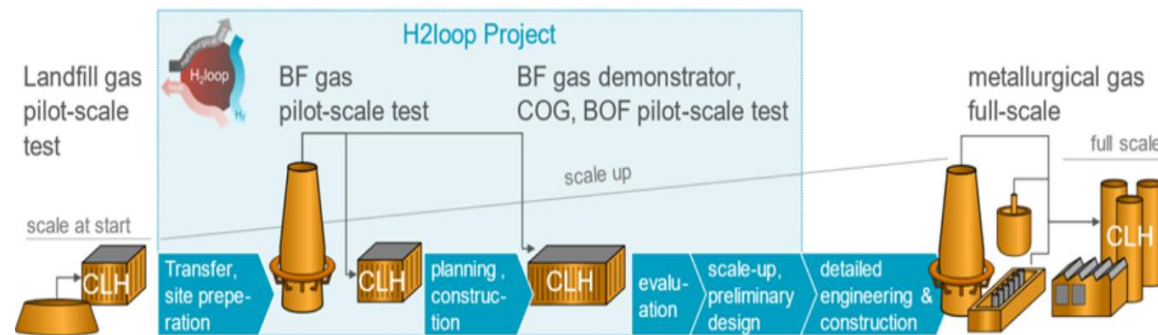
Consortium:

Steel Industry	RTO	Academia
<ul style="list-style-type: none"> ADI 	<ul style="list-style-type: none"> BFI (coordinator) RGH2 	<ul style="list-style-type: none"> PoliT0

TO BE PRESENTED IN FOLLOWING FSF SESSIONS

Main Objectives:

- Demonstrate on-site hydrogen production using Chemical Looping Hydrogen (CLH) technology.
- Develop and operate a CLH demo plant
- Prepare industrial scale-up and integration



© H2Loop website



(4) PRISMA



= Product environmental footprint information system for steel Manufacturing

RFCS Big Ticket for Steel
 Date: 2025 – 2029
 Budget ≈ 10 MEUR

Challenge addressed:
Digitalisation



Consortium:

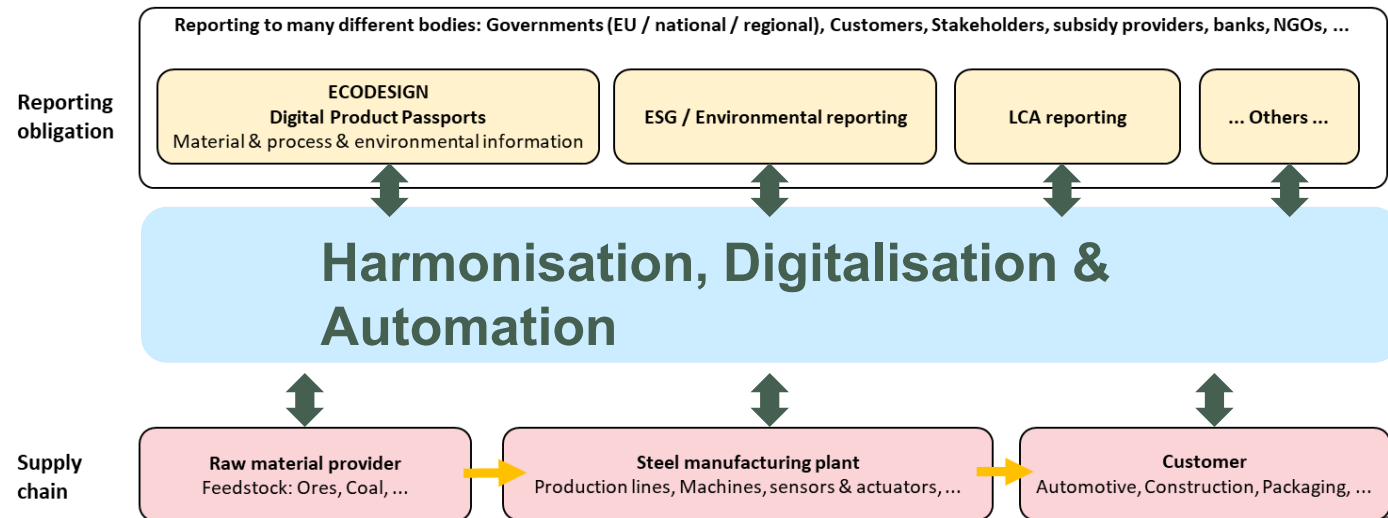
Steel Industry	Industrial Supplier	Specialist Institute	Academia / Association
<ul style="list-style-type: none"> ▪ CELSA ▪ TATA STEEL ▪ ORI MARTIN ▪ ABS 	<ul style="list-style-type: none"> ▪ DANIELI ▪ SMS ▪ PRIMETALS ▪ TENOVA 	<ul style="list-style-type: none"> ▪ AQUILES ▪ BM SPA ▪ RINA CSM 	<ul style="list-style-type: none"> ▪ LTU (coordinator) ▪ ESTEP

Main Objective:

Provide Evolutionary Framework of:

- Unified Data Model,
- Digital Infrastructure,
- (Software) Tools

to the Steel Manufacturing Industry to accelerate decarbonisation of the steel sector.



(5) InSGeP

= Investigations of Slags from Next Generation Steel Making Processes

RFCS Big Ticket for steel
Date: 2023 - 2027
Budget ≈ 4,5 MEUR

Challenge addressed:
Circular economy
and resource efficiency



Consortium:

Steel Industry	RTO	Industrial Supplier
<ul style="list-style-type: none"> ▪ voestalpine ▪ ORI MARTIN ▪ SIDENOR ▪ SAARTAHL 	<ul style="list-style-type: none"> ▪ SSSA ▪ RINA-CSM ▪ AMMR research center 	<ul style="list-style-type: none"> ▪ FEhS (coordinator) ▪ K1-MET ▪ CRM ▪ BFI
		<ul style="list-style-type: none"> ▪ TENOVA ▪ PRIMETALS

TO BE PRESENTED IN
 FOLLOWING FSF
 SESSIONS 

Main Objectives:

- Identification and characterization of slags from next-generation low-carbon steelmaking processes.
- Development of processing methods to obtain suitable slag properties.
- Valorization pathways and applications for slags to support circular and zero-waste steel production.



© FEhS presentation ESTEP Annual Event 20223



RFCS 2026

calls for proposals & next steps

2026 calls

RFCS 2026 – Big Tickets – Steel

Date: 3 Feb - 6 May 2026

Budget: 75 MEUR

CLOSED

RFCS 2026 – Big Tickets – Coal

Date: 3 Feb - 6 May 2026

Budget: 35 MEUR

CLOSED

Clean Industrial Deal (CID)

Budget: 50 MEUR

CLOSED

Steel and Metal Action Plan (SMAP)

Budget: 25 MEUR

**RFCS 2026 – Big Tickets – Steel
Dual-use**

Date: June - Sept 2026

Budget: 25 MEUR

NEW



Annual Call RFCS 2026

Date: June - Sept 2026

Budget: 40 MEUR

**29.1 MEUR for
Steel**

RFCS 2026 Big Tickets Steel: submission statistics



Proposals submitted

10
(4 SMAP - 6 CID)



Call budget

75 MEUR



Requested EC contribution

85.6 MEUR

20% resubmission rate

Annual call & Big Tickets Dual-Use 2026 – Timeline

Timetable and deadlines	
Calls open:	17 June 2026
Calls Deadline:	16 September 2026
Evaluation:	Oct - Nov 2026
Information on evaluation results by:	Jan - Feb 2027
Grant Agreement signature by:	June 2027

RFCS – Upcoming events

COMING SOON

Info days

RFCS Info Day: Annual Call & BT Dual Use – Hybrid
(Brussels and online) - 8 July 2026



Register
now! 🙌



Draft Agenda – RFCS Info Day: Annual Call & BT Dual Use (8 July 2026)

Morning session

9:00	Welcome Coffee – 13 th floor – Room 18
9:45	Welcome and introduction <i>REA Sebastiano Fumero, Head of Unit REA.B1</i>
9:50	Application preparation (Part A) <i>REA.B1</i> - Presentation of the Call Document for the Annual Call (Coal and Steel) 2026 <i>*(procedure also applicable to the Big Tickets Dual-Use steel call)</i> - Templates
10:30	Q/A
10:40	Coffee Break
11:10	Application preparation (Part B) <i>REA.B1</i> - Technical part on F&T Portal - Budget tables
12:00	Q/A
12:10	PIC Registration, Legal Validation, Financial Capacity Assessment <i>*(also applicable to the Big Tickets Dual-Use steel call)</i> <i>REA Central Validation Service</i>
12:25	Q/A
12:35	Lunch break

Afternoon session - RFCS Big Tickets Dual-Use (Steel)

14:00	13 th floor – Room 18
14:00	Introduction and presentation of dual-use policy goals <i>DG RTD Doris Schroecker, Head of Unit RTD.E1 (TBC)</i> <i>DG RTD Carsten Schierenbeck, Head of Unit RTD.E3 (TBC)</i> <i>REA Sebastiano Fumero, Head of Unit REA.B1</i>
14:30	Q/A
14:45	Application preparation for dual-use (Part B) <i>REA.B1</i> - Presentation of the Call Document for the Big Tickets Dual-Use 2026 - Specific objectives and expected impact for dual-use - Templates - Technical part on dual-use - Budget tables
16:00	Q/A
16:10	Closure of first part
16:30	One-to-one sessions for dual-use proposals <i>REA.B1; DG RTD.E1 (TBC)</i> Interactive session (<u>for in-person participants only</u>)

RFCS – Upcoming events

COMING SOON

REA Annual Events

RFCS Coal Annual Event – Bochum, Germany – **29 September 2026**
Coupled with DG ENER's Coal Regions in Transition (CRiT) event.

RFCS Steel Annual Event – Krakow, Poland – **2 December 2026**



Let's stay in touch



[Sebastiano Fumero | LinkedIn](#)



[@SebiFumeroEU](#)

Thank you!

