Introduction to Dissheat final workshop and the Dissheat project.

Dissemination of the heating technology research results for emission minimization and process optimization towards todays fossil-free heating agenda – dissHEAT (G.A. 101057930)

Andreas Johnsson (Coordinator), Swerim

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Agenda

ROADMAP webinar. December 14,. Time 14-15.35			
Time	**Speaker**	**Speaker Organization**	**Presentation**
14.00	Andreas Johnsson	Swerim	Introduction
14.10	Oliver Hatzfeld/Filippo Avellino	BFI/RINA-CSM	Project highlights from the State-of-the-Art report
14.25	All	BFI, RINA-CSM, RWTH, CRM, Swerim	ROADMAP presentation
15.15	Hugo Uijderbroeks	CRM	Final remarks/conclusions
15.25	Hugo Uijderbroeks	CRM	Q & A
15.35	Andreas Johnsson	Swerim	Event close

This is a recorded webinar.
Remember to post questions for the Q&A

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About Dissheat

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This project is about elevating and **sharing the knowledge in the research area reheating of steel**. To bring **forward and promote HEU/RFCS/ECSC project results, innovations and knowledge** that has reached a smaller audience than it deserves and **scale-up the important outcomes and to share this with various stakeholders from industry, suppliers, policymakers and research.**

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Dissheat: Dissemination project under RFCS.

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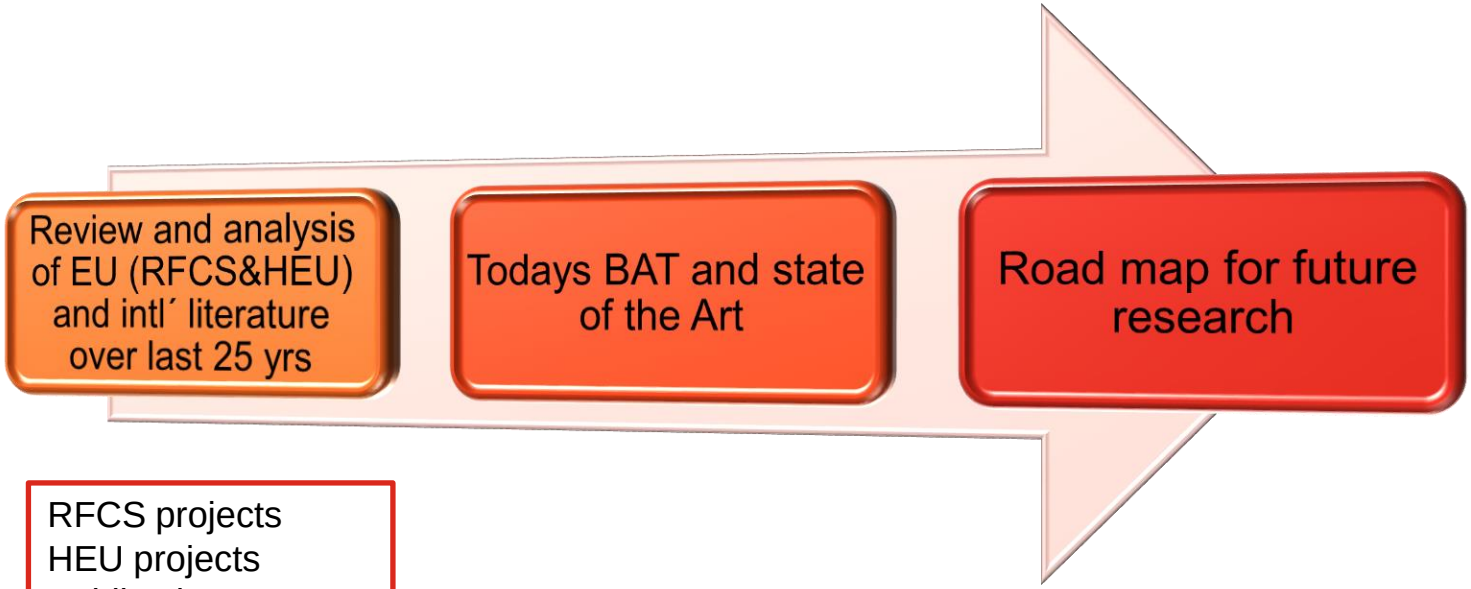

RFCS projects
HEU projects
Publications
Selected, analyzed and evaluated

BFI

CRM GROUP

RINA

RWTH AACHEN UNIVERSITY

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Methodology

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- RFCS projects & HEU projects. Selected based on topic, reheating furnaces. Last 25 years.
- Intl literature over last 25 years.
- Classified into 5 main topics or subgroups.
  - Heating and burner technology. — BFI
  - Modeling of the entire furnace, level 2 control. — RINA CSM-SpA
  - Materials in the furnace and product quality. — CRM group
  - Sensors and control, standards, regulations. — RWTH
  - Heat transfer, Heat recovery, productivity, CAPEX, OPEX. — Swerim
- Analysis and evaluation of the outcomes of the material.

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KPI´s we focus on

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KPIs used. Besides project description and reference to project report

- Classification (success, partial success, failure)
- Practical application of results
- Follow up projects
- Research gaps
- TRL start- TRL end
- Number of industrial installations
- Energy consumption [GJ/t or % decrease]
- Productivity increase [t/h or %]
- CAPEX, OPEX [increase/decrease]
- Scale loss, or yield improvement [%]
- CO_2 emission reduction scope 1 and scope 2 [kg/t or %]
- Combustion efficiency improvement [%]
- Heat transfer improvement [kW/m^2]

Project related KPI

Process related KPI

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Scope 1 A reporting organization's direct GHG emissions.
Scope 2 A reporting organizations emissions associated with the generation of electricity, heating/cooling, or steam purchased for own consumption

Project reporting

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- Summarizing table of relevant applications and technologies with KPI´s.
- Special report with categorized applications and technologies for low CO2 heating - report.
- SoA and BAT for each main topic - report.
- Current practices - report.
- Market needs – report
- Roadmap - report.
- Two abstracts accepted for the 14th INFUB conference. April 2-5 2024.

- Electrification of reheating furnaces: state of the art and future research needs
- Dissemination and future research road map on heating and burner technology in industrial heating in the European steel industry

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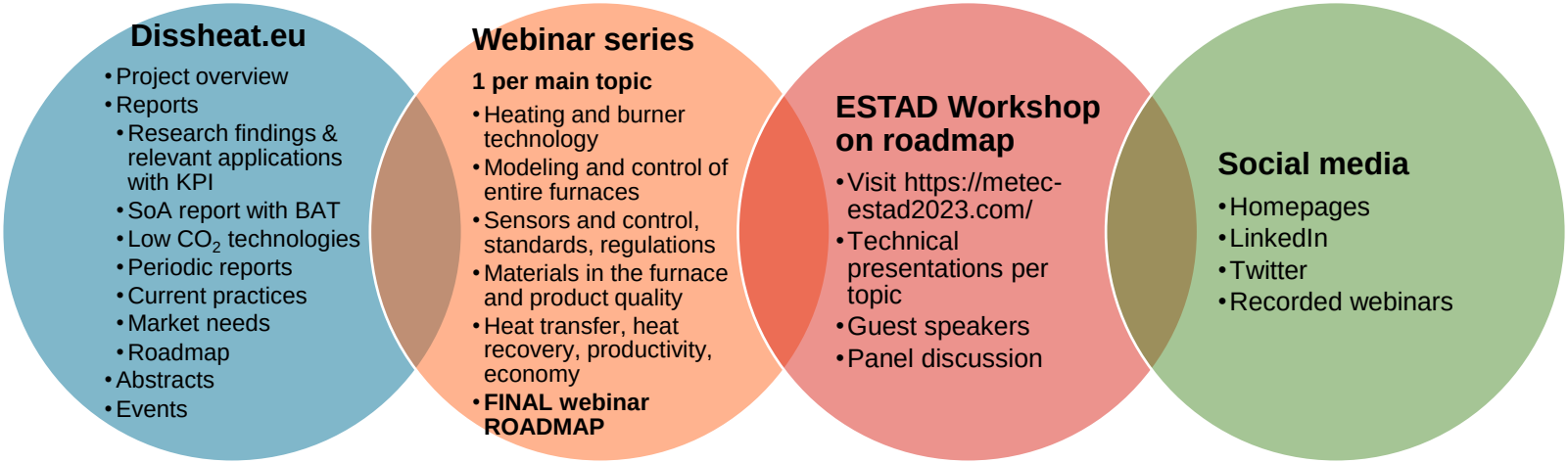

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Dissheat.eu

- Project overview
- Reports
  - Research findings & relevant applications with KPI
  - SoA report with BAT
  - Low CO_2 technologies
  - Periodic reports
  - Current practices
  - Market needs
  - Roadmap
- Abstracts
- Events

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Webinar series

1 per main topic

- Heating and burner technology
- Modeling and control of entire furnaces
- Sensors and control, standards, regulations
- Materials in the furnace and product quality
- Heat transfer, heat recovery, productivity, economy
- **Final workshop ROADMAP**

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ESTAD Workshop on roadmap

- Visit https://metec-estad2023.com/
- Technical presentations per topic
- Guest speakers
- Panel discussion

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Social media

- Homepages
- LinkedIn
- Twitter
- Recorded webinars

The ROADMAP

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Presenting a Roadmap for future research activities with a clear path for technological progress. Especially linked to **carbon direct avoidance applications like H_2, electrical solutions, hybrid heating alternatives and flexifuel applications and their opportunities and challenges**

ROADMAP for low carbon future for steel reheating furnaces – open webinar

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Thank you for the attention!

Stay informed

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