



SisAl Pilot

SisAl Pilot Project
Innovative pilot for Silicon production with low environmental impact using secondary Aluminium and silicon raw materials

6th October 13:00-16:00 CET - ONLINE

CLUSTERING EVENT "RAW MATERIALS IN EUROPE: How to improve the recycling of secondary raw materials in Europe with the Norwegian ecosystem as an example"



Great success for the SisAl Pilot Clustering event!

Context and scope of the SisAl Pilot Clustering Event

As agreed in the Grant Agreement, under Task 6.3 Clustering and EU stakeholder workshop organization (lead by NTNU), the Clustering activities organized by the EC will be attended by consortium members. Moreover, the consortium will also organize a joint clustering event under the umbrella of EIT Raw materials (D6.6), with an international research focus, inviting among others, our international collaborators.

EIT Raw materials (EIT RM) and European Raw Material Alliance (ERMA) were involved in the organization and execution of the event. Originally, the clustering event was planned to be a physical event linked to an EIT RM event, such as the EIT RM Summit, stakeholder days, or a thematic meeting. However, after discussions with EIT RM, it was decided to link the event to a partner visit at NTNU. Personnel from EIT RMs Innovation Hub North (the hub that NTNU belongs to) were at NTNU and presented the upcoming calls, and news from the network and welcomed NTNU to ERMA. Face-to-face meetings between researchers and EIT RM as well as lab visits were also

organized when they were at NTNU. Since the clustering event was organized in Norway, we took the advantage of the local community and invited speakers from the Scandinavian ecosystem with the aim of boosting innovation and education in the rest of Europe by presenting the Scandinavian perspective.

To promote the event a banner on the homepage and a flyer were elaborated by Innovation Engineering, a registration form was used to collect the participants, and all the partners jointly contributed to further boost the event visibility on social media channels and on corporate websites, too.

Around 50 participants enrolled in the online event and 30 people joined the session virtually organized.

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 G.A. 89268

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6th October 13:00-16:00 CET - ONLINE

The SisAI Pilot (www.sisai-pilot.eu) and SisAI slag (https://sisaislag.eu) project partners are glad to invite you to the SisAI clustering event virtually hosted by NTNU on October 6th.

The event aims at providing an overview of the actual raw materials situation in Europe, starting from the Norwegian perspective, as well as the training, education and academia perspectives. The half-day online event will gather representatives across the value chain of raw materials: Raw material suppliers, processing companies, end-users and recyclers, along with academia, research institutes, key players of the industrial sector with best practices and representatives from EU funded projects with innovative ideas.

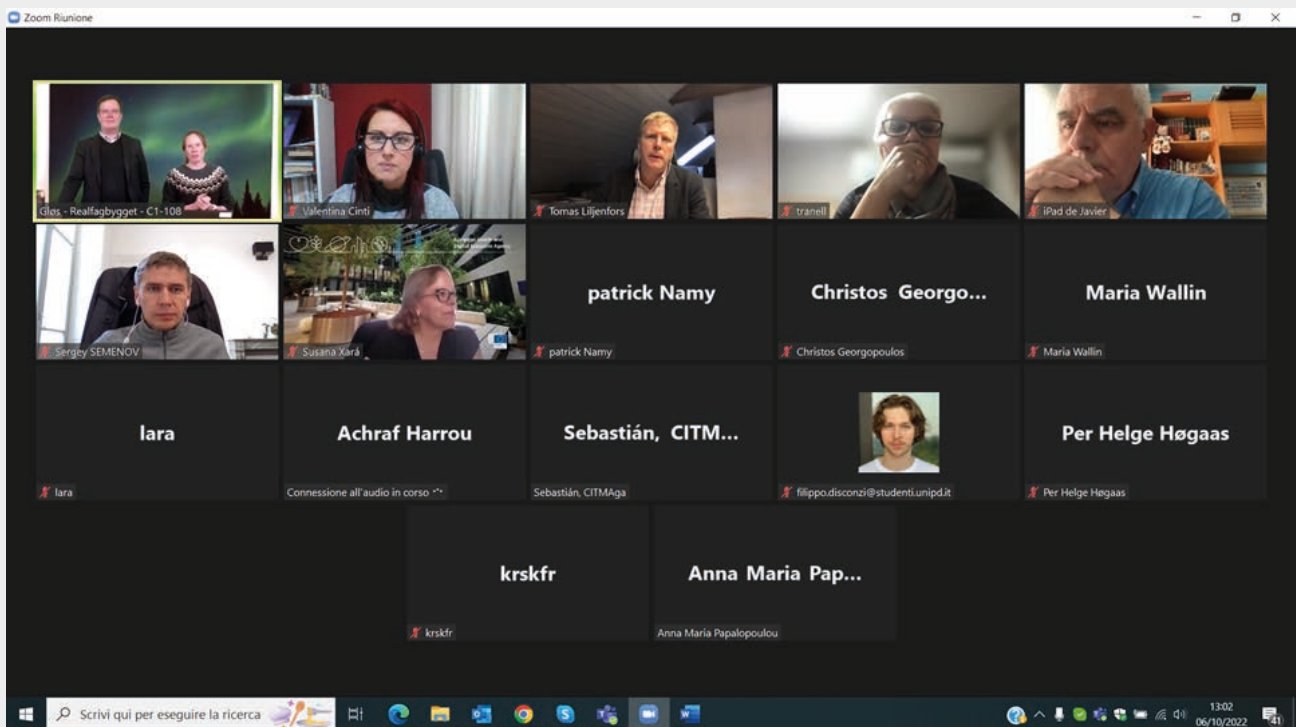
The discussion at the end of the event, will be moderated by Mr. Anastasios Kladis¹ and will try to shed light on the following topics:

1. How is the recycling of secondary raw materials approached in Norway?
2. How can we improve the recycling rate in Europe?
3. What are the main innovation avenues in Reduce – Reuse – Recycle triangle, which the Raw Materials Community is working on right now?

The event is free of charge. The programme and the registration form are available on the website [here](#).

¹Mr. Kladis is a Mining Engineer – Metallurgist from NTUA, Greece. He holds a MSc in Mineral Economics from Nottingham University, UK and is professional trained in INSEAD, France and IMD, Switzerland. Mr. Kladis is strongly involved in sourcing analysis and/or business planning in several EU projects (Esureoil, RenewAL, ASICOL, Crocodile, Reatch, SisAI Pilot). He is also consulting several companies in the industry of raw materials production on strategic business planning, strategic sourcing, product development and M&A.

Supported by Co-funded by the European Union



The program

The event aimed at providing an overview of the actual raw materials situation in Europe, starting from the Norwegian perspective, as well as the training, education, and academia perspectives. The half-day online event wanted to gather representatives across the value chain of raw materials: Raw material suppliers, processing companies, end-users, and recyclers, along with academia, research institutes, key players of the industrial sector with best practices, and representatives from EU-funded projects with innovative ideas.

To facilitate this, a speaker from each one of the above-mentioned categories of stakeholders were invited to the event to introduce their perspectives on the topic faced.

Namely, the speakers invited to the event were the following:

1. Dr. Olli Salmi

(managing director at Innovation Hub North and Baltic Sea at EIT RM) - Representative from **EIT RM / ERMA**



2. Prof. Gabriella Tranell

Coordinator of SisAl Pilot and SisAl slag projects, presented an overview of the SisAl approaches. **NTNU**

3. Dr. Benjamin Ravary

R&D Director – Business Unit Manganese Alloys at Eramet in Norway, introduced the industrial approach.

SisAI Pilot - Overall Project Objective

Demonstrate an industrial process to produce **CRM silicon** together with Alumina products, enabling a shift from today's carbothermic Submerged Arc Furnace (SAF) process to a more environmentally and economically sustainable alternative: an **aluminothermic reduction of quartz in slag that utilizes secondary raw materials such as aluminium (Al) EoL scrap and dross, as replacements for carbon reductants used today.**

IA in SCS, Total budget: 14.5 MEuro , 22 partners, project length: 4 years (2020-2024)

Logos of partners: NTNU, RWTH AACHEN UNIVERSITY, SINTEF, HZDR, MINTEK, Irmast, Hydro, BEFESA, Erimsa, Elkem, WACKER, DOW, BW ENERGY, IMTEC, SBC, SIQAL, CONNECTING AMBITIONS, INNOVATION ENGINEERING, Silicor.

The project has received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement N°964266.

eramet

Circular economy activities at Eramet Norway

Benjamin Ravary, R&D director Mn Alloys (presenter)
Leif Hunsbedt, senior specialist

SisAI Pilot
Clustering meeting 06.10.2022

4. Dr. Maria Wallin

Administrative Coordinator of HydroMetEC, discussed hydrometallurgy from an education/training sector perspective. **NTNU**

5. Dr. Tomas Liljenfors

The founder of BRYNE a start-up based in Sweden, presented its new approach.

HydroMetEC

Hydrometallurgy in raw materials utilization - an educational and communication programme (HydroMetEC)

Lifelong learning program (2020-2022)

Logos of partners: NTNU, Metso-Outotec, BOLIDEN, A, MONOLITHOS, TU Delft.

Supported by: EC, RawMaterials

The panel discussion at the end of the event was moderated by Mr. Anastasios Kladis. Mr. Kladis is a Mining Engineer – Metallurgist from NTUA, Greece. He holds an MSc in Mineral Economics from Nottingham University, UK, and is professionally trained in INSEAD, France, and IMD, Switzerland. Mr. Kladis is strongly involved in sourcing analysis and/or business planning in several EU projects (Ensueal, RemovAl, AlSiCal,

Crocodile, Reactiv, and SisAI Pilot). He is also consulting several companies in the industry of raw materials production on strategic business planning, strategic sourcing, product development, and M&As.

This panel discussion tried to shed light on the following topics:

- How is the recycling of secondary raw materials approached in Norway?
- How can we improve the recycling rate in Europe?
- What are the main innovation avenues in Reduce – Reuse – Recycle triangle, which the Raw Materials Community is working on right now?

These three key questions were also asked in the registration forms to the participants, to provide inputs to the discussion and also from the audience attending the event. The questions, of course, were not mandatory.

Below is also reported the matrix used by the moderator Anastasios Kladis during the panel discussion to stimulate the debate.

	How is the recycling of secondary raw materials approached in Norway?	How can we improve the recycling rate in Europe?	What are the main innovation avenues in Reduce - Reuse - Recycle triangle, which Raw Materials Community is working on right now?
OLLI SALMI	5. What are you doing to replicate Norway?	1. Are you happy with the results vs the money spent? Need more ideas?	3. Is recycling institutionalized enough in the EU?
GABRIELLA TRANELL	1. Which is the knowledge background in Norway? Universities, Research institutes, Government agencies	2. Has today's Metallurgy reached its limits? Are Pyro - Hydro enough?	5. Have you adjusted the Curriculum accordingly?
BENJAMIN RAVARY	4. What is the role of Symbiosis in recycling? E.g. Mo-i-Rana industrial park	3. Recycling or Upcycling? Converting recycled metals directly into alloys?	1. Is recycling becoming a part of your core business or is it just a CSR activity?
MARIA WALLIN	2. What is the Norwegian Government's attention to secondary materials recycling? Funding programs, Initiatives	4. Who is pushing you for more performance in this topic? Industry, Society, or your scientific curiosity?	4. As a researcher, what are the skills required for increased 3Rs innovation?
TOMAS LILJENFORS	3. What are the competitive advantages of Norway?	5. Are agile SMEs more suitable to stretch the limits of recycling?	2. What is the role of SMEs in the 3Rs' acceleration?

A page was created on the project website to provide information to the public regarding the SisAI Pilot Clustering event and it is available [here](#).

Partners



Contact us

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