HOW TO BULID A PROJECT PORTFOLIO OF COLLABORATIVE PROJECTS?



Maria Wallin <u>maria.wallin@ntnu.no</u> Researcher at Department of Materials Science and Engineering (IMA/NV)





Horizon Europe		
Total budget: EUR 95,5 billion		
Excellent Science	Global Challenges and European Industrial Competitiveness	Innovative Europe
European Research Council (ERC)	 Clusters Health Culture, Creativity and Inclusive Societies Civil Security for Society Digital, Industry & Space Climate, Energy and Mobility Food, Bioeconomy, Natural Resources, Agriculture & Environment EU Joint Research Centre (JRC) 	European Innovation Council (EIC)
Marie Skłodowska-Curie Actions (MSCA)		Innovation ecosystems
Research Infrastructures		European Institute of Innovation and Technology (EIT)
Widening participation and strengthening the European research area (EUR 2.1 billion)		
Widening participation and spreading excellence. Reforming and enhancing the European R&I system.		









Our roadmap to climate neutral products





Elkem

* Total global fossil CO2 emissions, scope 1 and 2 ** Main products average fossil CO2 emissions, scope 1-3













A GOOD IDEA THAT COULD BE COMMERSIALISED





The project has received funding from the European Union's Horizon 2020 research and Innovation program under Grant Agreement N'869268.



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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 (AI) EoL scrap and dross, as replacements for carbon reductants used today.

IA in SC5, Total budget: 14.5 MEuro , project length: 4 years (2020-2024)







Concept and Approach

 $SiO_{2} + 2C = Si + 2CO$

SAF - Largely gas/solid reactions **Endothermic Process**

Approx 5 tonne of CO₂/tonne Si



 $3SiO_2 + 4AI = 3Si + 2AI_2O_3$











SUSTAINABLE HYDROGEN AND ALUMINOTHERMIC REDUCTION PROCESS FOR MANGANESE, ITS ALLOYS AND CRITICAL RAW MATERIALS PRODUCTION















A Thermophotovoltaic Battery



A Thermophotovoltaic Battery

Renewable electricity generation (TWh), 1965-2021 BP Statistical Review of Global Energy







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You are receiving this email as your institution has been **pre-selected** by the European Commission to submit an application for the EU's **Innovation Radar Prize 2022**. Please be aware that this opportunity is not presented to all innovator organisations funded by the EU.



KICKSTARTER CATEGORY WINNER

Polytechnic University of Madrid (Spain)

A thermophotovoltaic battery that stores surplus renewable generation and produces combined heat and electricity on demand. The value proposition is the supply of a very cheap system capable of storing large amounts of energy for long periods, which has high energy density, high global efficiency and uses abundant and low-cost materials. Polytechnic University of Madrid received EU funding for this innovation via the AMADEUS and NATHALIE projects. Website: https://www.upm.es/internacional







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Overview of 49 candidate European Partnerships

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness



PILLAR III - Innovative Europe

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THANKS!





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