SUPREME

NEWSLETTER

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Forward by the coordinator, Dr Arnaud Witomski

SUPREME is a SPIRE funded project, which EU contribution represents almost €8m for 17 partners from 8 countries. Its overall objective is to optimize the sustainability of powder metallurgy processes and hence to contribute to the goals of the PPP in terms of resource and energy efficiency improvement. More specifically, the great value added of this consortium is not only its ability to cover the full value chain from raw materials to a broad set of end parts applications (from aeronautics to medical), but also to address several key process industries: minerals, ferrous and non-ferrous metals. SUPREME is also contributing to achieve the objectives of the EIP Raw materials, and more generally to foster the transition to a circular economy in Europe.

In SUPREME, 60% of the budget has been dedicated to industrial partners whose 30% for SMEs, which makes it an industrially-driven project. The innovations resulted from the close cooperation between research and technology organizations and companies aim a transfer to the market to have significant impact on wealth and jobs creation.

CEA-LITEN is a major European technological research institute and a driving force behind the development of a low-carbon and circular economy. We are very honoured to coordinate SUPREME and highly motivated consortium. It is indeed a great satisfaction to contribute to a more sustainable environment while helping to strengthen European process Industry competitiveness, in particular powder metallurgy, in today's global competition and tomorrow's future challenges for the planet.

Dr Arnaud Witomski
SUPREME project coordinator
CEA-LITEN

Introduction

SUPREME aims at optimising powder metallurgy processes throughout the supply chain. It will focus on a combination of fast growing industrial production routes and advanced ferrous and non-ferrous metals. By offering more integrated, flexible and sustainable processes for powders manufacturing and metallic parts fabrication, SUPREME enables the reduction of the raw material resources (minerals, metal powder, gas and water) losses while improving energy efficiency and thus carbon dioxide emissions, into sustainable processes and towards a circular economy.

To achieve this goal an ambitious cross sectorial integration and optimisation has been designed between several powder metallurgy processes; gas and water atomisation as well as ball milling for metal powder production, laser based additive manufacturing and near-net shape technologies for end-parts fabrication. A consortium of 17 partners has been gathered on this purpose under the coordination of the Commissariat à L'Energie Atomique et aux Energies Alternatives (CEA), France.

The Supreme Project kicked off on 21 September 2017 with a meeting taking place at Brussels.

SUPREME kick off meeting, Brussels, September 2017

The SUPREME Consortium

The Supreme Consortium sees a mixture of organisations covering the full value chain from mineral to end parts applications: Atomising Systems Ltd (United Kingdom), CEA (France), Centro Ricerche Fiat (Italy), Dellas Srl (Italy), European Powder Metallurgy Association (Belgium), GKN Sinter metals (Germany), Innovation Plasturgie Composites (France), IRIS (Spain), MBA Incorporado SL (Spain), MBNnanomaterialia (Italy), Outotec (Finland), Prismadd (France), Prodintec (Spain), Renishaw (United Kingdom), RHP Technologu GmbH (Austria), Technalia Research and Innovation (Spain) and TWI Ltd (United Kingdom)

Promotion

At the Euro PM2017 Congress & Exhibtion in Milan, EPMA promoted SUPREME during its popular EuroAM meeting, allowing the 65 plus participants to be the first to hear of the SUPREME Projects proposals. This presentation given by Dr Thierry Baffie, SUPREME technical director at CEA-LITEN, was videoed by EPMA and can be viewed both on the EPMA website and via the SUPREME website: **www.supreme-project.com.**

Dr Thierry Baffie at Euro PM2017 Congress & Exhbition

SUPREME Review meeting

A SUPREME review meeting was held on the 16-17 January 2018 at CEA in Grenoble, France. The meeting proved greatly beneficial to all consortium partners in attendance. Discussing past, present and future work packages and how they shall be tackled.

The meeting was also followed by an interesting workshop on Eco-Innovation. Partners were asked to review proposed value chains describing a baseline and a final SUPREME process to build five demonstrators: aeronautics, mold inserts, cutting tools, medical implant and automotive value chains. This session was aimed at sharing a common view on value chains and helped partners to understand the environmental KPI's on resource and energy efficiency, production rate and CO2 emissions towards a circular economy.

Full consortium partners

Partners during the Eco innovation workshop

SUPREME in the spotlight

Since SUPREME was launched in September 2017, it has been promoted near and far by both EPMA and other consortium members. Flyers and banners detailing the project have been distributed at many international exhibtions, such as Formnext, Frankfurt, Advanced Engineering, Birmingham and CTI Symposium, Berlin, gathering much attention.

Further information on past and future events and news can be found at **www.supreme-project.com**

Andrew Almond promoting the Supreme Project at Formnext, Frankfurt, November 2017

For further information on the SUPREME project please contact Miss Scarlett Williams at EPMA on **sw@epma.com** or the project leader Dr Arnaud Witomski at CEA at **arnaud.witomski@cea.fr** or visit the website at **www.supreme-project.com**