

# VMAP SC Technical Meeting

**December 14, 2021**

**15:30 - 17:30 CET**

**Participants:** Fraunhofer SCAI, Germany; Philips, Netherlands; Robert Bosch GmbH, Germany; Reden, Netherlands; BETA CAE, Switzerland; Karlsruhe Institute of Technology, Germany; Transvalor, France; Convergent, Canada; Part Engineering, Germany; inuTech, Germany; BAM, Germany; SWERIM, Sweden

## Introduction

### Working Group Status/Feedback

- First Impressions on storing Sensor Data
  - Presented by SCAI
  - Store necessary data to validate a CAE simulation with sensor data.
  - First ideas developed at SCAI, based on internal projects.
  - Further checks and improvements based on VMAP Analytics Project
- ANSYS Wrapper Updates
  - Presented by Bosch
  - Testing carried on different use cases
  - Computational efficiency is not satisfying
  - Align with CADFEM, ANSYS and inutech on integration of VMAP specification into CAE workflows

### Communication with Other Potential Partners

- [VMAP Analytics](#)
  - Project involves the development of suitable digital twins (DTs) based on physics and data science for deeper understanding of the steel manufacturing processes.
  - Presentation on all the different use cases
    - Reheating - developed digital twin of the heating process, Data analytics to increase process knowledge
    - Plate Rolling - Employ physics based digital twin for process modelling as well as prepare synthetic data, Use domain knowledge to validate correlations predicted, Develop data driven mode
    - Degassing & Cooling Bed - decrease degassing time with the help of data analytics and CAE model simulations
- [LeBeDigital](#)
  - Life cycle of concrete – Ontology development for the process chain of concrete production
  - Potential to store the finite element data in VMAP Standard format

### Ongoing Activities

- Hosting technical working group meeting
  - [Complete Model Storage](#) – led by BETA CAE, first use case will be provided by BAM

### General Organisation

- Update on VMAP SC formation
  - Supported by an experienced tax lawyer Fraunhofer drafted a new VMAP Statutes document
- [VMAP SC Webinar](#)
  - The webinar will be hosted in early 2022 by NAFEMS

**Next Meeting**

- 15 March, 2022 @15:30