

# VMAP SC Technical Meeting

**June 30, 2021**

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

**Participants:** Fraunhofer SCAI, Germany; NAFEMS DACH, Robert Bosch GmbH, Germany; Reden, Netherlands; BETA CAE, Switzerland; Karlsruhe Institute of Technology, Germany; Transvalor, France; 4a Engineering, Austria; DYNAmore, Germany; Hagen Stiftung, Germany; Convergent, Canada; Simcon GmbH, Germany; Part Engineering, Germany

## Introduction

### Status VMAP 1.x

- Restart, Version 1.0 - Specs, IO-Library, test cases, tutorial
  - Short update regarding the current status of the VMAP Standard.
  - Details about the available documentations was provided
  - Fraunhofer SCAI is providing access to VMAP Standard via their own download portal until the VMAP SC is officially registered
- Open Issues
  - The extension of the VMAP Standard was also discussed, largely pertaining to extension of result storage, compatibility among various versions, visualization possibilities etc.

### Potential Extensions for VMAP

- Simulation CFD, multiscale, ...
  - VMAP Community will consider storage of CFD Simulations within the VMAP Standard
  - Contacted CGNS Standard to cooperate on this topic
  - Multi Scale Simulations will also be an area of interest
- Ontologies, Data analytics and AI
  - Standardization and annotation of data for semantic search systems
  - Assessing process workflows and finding commonalities with the STEP Standard
  - Building Material & Manufacturing Workflow Ontologies, in accordance with the standards (STEP, DIN, ISO) and aligning VMAP to these ontologies.

### General Organisation

- Organization of regular meeting and Working Group meetings
- Website to be hosted via Fraunhofer SCAI

### Ongoing R&D projects with some relations to VMAP Standard

- [Fraunhofer Project DigitalTPC](#)
  - Timeline: Feb 2019 – Jan 2022
  - Digital twin for UD tapes – data from sensors and non-destructive testing facilities
- [ITEA VMAP analytics](#)
  - Timeline: Jan 2021 – Dec 2023
  - Concepts to handle experimental data in steel manufacturing
  - <https://www.swerim.se/en/news/vmap-analytics-project>
  - VMAP standard will be further developed to store sensor & experimental data
- [Fraunhofer Project HABICHT](#)
  - Timeline: Jan 2021 – Dec 2023

- Digital twin for design of electrical engines – data from EMAG simulation & experiment
- VMAP Standard to be used for storage of simulation data

### **Next Meeting**

- 21 September, 2021 @15:30