

On December 5, 2023, the 16 individuals listed in the attendance list as (authorized) representatives of 12 institutions met in an

**MS Teams Online Meeting** 

For the 4<sup>th</sup> assembly meeting of the

**VMAP Standards Community.** 

Of the persons listed, one person per institution has the power of attorney to exercise voting rights at the meeting. The attendance list and the authorizations are an integral part of these minutes (see Annex 1)

The chairman Klaus Wolf (Fraunhofer SCAI) opened the meeting. He welcomed the attendees and explained the purpose of the meeting.

The chair of the meeting proposed the following agenda:

- 1. General Status Updates
- 2. WG Sensor Data
- 3. WG Paraview/Python
- 4. WG Full Model Data
- 5. Marketing Events
- 6. VMAP User Meeting February 2024

The agenda was adopted unanimously.

Details of the technical discussions and plans can be found in the related PowerPoint presentation for that meeting.

to 1 / General Status Update

SCAI provided the general status update regarding the formation of the VMAP SC as a not-for-profit association registered at the Amstgericht Siegburg (NRW) including the tax number and other relevant details. The website is now hosted as vmap-standard.org and the old website vmap.eu.com will be decommissioned from all platforms and websites.

to 2 / WG Sensor Data

SCAI provided a brief update on current developments in the sensor data storage. This working group has accounted for 1D and 3D use cases to demonstrate the storage of

sensor data in VMAP Standard. The aim is to store metadata associated with the measurement system and the measured values along with the uncertainties in measurement. The extensions to the VMAP Standard have been documented and sent to all partners for evaluation. Feedbacks are expected by the first week of February 2024.

## to 3 / WG Paraview/Python

SCAI presented a short overview on the VMAP plug-in integrated in Paraview. The current functionalities include multiple parts, static & transient variables, scalars, vectors, and 2<sup>nd</sup> order symmetric tensors etc. VMAP Analytics project has also implemented a similar solution where the VMAP results are read by Paraview and then are further fed to A-curve for visualization of stress and strain contours.

The VMAP SC members present in the meeting agreed to go ahead with the further development of the VMAP post-processing plug-in.

## to 4 / WG Full Model Data

SCAI presented a detailed and complex discussions which have been going on in this working group for the last one year. The WG is focussing on use cases from BMW & DLR and intends to take a 2-level approach to store the full model data in VMAP – the numerical level and the physical level. The numerical level will include the model components like boundary conditions. The physical level will focus on modelling standards, configuration files, best practices etc. The status and the further development of these domains has been accepted by the members of the VMAP SC, who were present in the meeting.

## to 5 / Marketing Events

SCAI is largely focussing on the marketing activities for the VMAP SC. In this regard, ITEA has published the 'VMAP Impact story' under their 'ITEA Impact Stream' article in November 2023. VMAP workshop is planned for the NAFEMS DACH Conference in Bamberg next year.

## to 6 / VMAP User Meeting February 2024

Invitation for the 1<sup>st</sup> VMAP User Meeting has been sent to all VMAP SC Members, WG contributors, ITEA, German POs and other industrial partners who have shown interest in the standard. A draft agenda was also presented at the meeting.

Sankt Augustin, 19 December 2023

Chairman Klaus Wolf