

# KEY TAKE-AWAYS FROM TODAY

- It is feasible to organise an interactive session with 100+ participants (!)
- Informal proceedings: slide-deck with all the photos of all the sheets + presentations → <http://mbse2023.esa.int>
- **Pitch Dissaux**: bridge the time discontinuity between SE and SWE processes / linking models at functional level
- **Pitch De Roquemaurel**: big models → large documents: how to manage in practice → customised views / semantic reviews / interrogate / use conversational AI / long term access
- **Pitch Wortmann**: importance of ontologies to define structure, meaning and life-cycle of data; how to deal with uncertainty / incompleteness / constraints – both centralised and decentralised exchange is probably needed
- **Pitch Horvath**: careful adoption strategy needed; great power comes with great responsibility/ historic (sw) bias / guided transition and training / method embedding? / cold water fear for first application?
- **Pitch Chami**: no common understanding of the DATA LINKING concept; lots of DATA LINKING problems. No doubt AI can help → first applications are promising – AI4MBSE / AI4MBSE
- Focus on SW/SE : did we really address the MBSE to DSE? Many topics not covered.... Still work to do!
- IDEAS for MBSE 2024: how to have an interactive session like this as part of the programme (at scale)

# BIG THANK YOU

- Elevator pitch proposers
- Discussion facilitators: Andreas, Nils, Luis, Catherine
- World – Café organiser: Nikolena Christofi
- Conference co-organiser : Kathleen Gerlo
- **YOU (THE AUDIENCE)**



# Model-based for Systems Engineering - harmonisation dossier and roadmap update

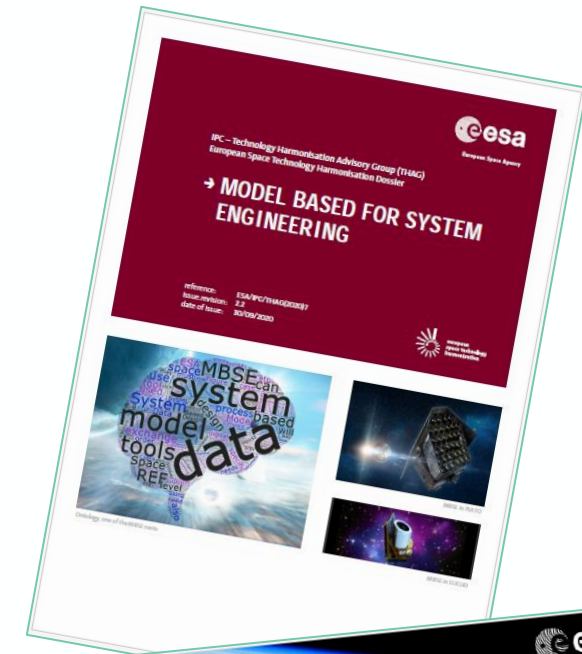
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Marcel Verhoef

ESA ESTEC

13/11/2023

- Current dossier and roadmap dates from September 2020
  - rapid evolution of the MBSE technologies in the marketplace, emerging new standards and lessons learned from MBSE applications in the space industry and the agencies;
  - first results from the existing harmonisation roadmap have reached implementation stage in ESA projects which requires roadmap tailoring to increase business impact;
  - digitalisation of engineering workflow is high on the ESA 2025 agenda of the Director General, and embedded in industries strategies;
  - the MB4SE advisory group between the Agency and European industry has been successfully established in the last years and has provided highly relevant input for the evolution of the roadmap.
- IPC-THAG agreed to move update of harmonisation dossier forward from **2025 cycle 1** to **2024 cycle 2**, kick-off with TEC-H took place on 27 Oct 2023
- Scope: *Model-based Systems Engineering, including relevant parts of data governance and interoperability*
- Community involvement (for preparation support) will be organised through the MB4SE advisory group
- Participation open to anyone, following normal harmonisation process and workflow





- Review of existing dossier and roadmap / preparations for update : Nov / Dec 2023
- First issue of updated harmonisation dossier : January 2024
- Dossier review (mapping consultation) phase : February / March 2024
- Mapping meeting : 9 – 11 April 2024 (TBC)
- Second issue of updated harmonisation dossier and draft roadmap : May 2024
- Dossier review and approval phase : May / June 2024
- Roadmap consultation phase : July – Sept
- Roadmap consultation meeting : Sept 2024 (exact date TBC)
- Final update of roadmap : Oct 2024
- Roadmap review and approval phase : Nov 2024
- Final roadmap approval (by IPC-THAG) : 27/28 Nov 2024 (exact date TBC)

ADCSS 2023  
MBSE 2023

MBSE 2024

ADCSS 2024



SEE YOU THERE

- <https://mbse2024.welcome-manager.de>
- Call For Papers to appear very soon (full papers required)
- Hackathon and academic track (selected papers to be published in CEAS journal)

- **Space System Ontology Developer Workshop**
  - 23-24 November 2023 (ESA/ESTEC - [Serge.Valera@esa.int](mailto:Serge.Valera@esa.int))
- **AR/VR for Space Programmes**
  - 11-12 December 2023 (ESA/ESTEC)
  - Event website: <https://indico.esa.int/event/475/>
- **Systems and Concurrent Engineering Conference 2024 (SECESA)**
  - 25 – 27 September 2024 (Strasbourg, ISU)  
<https://atpi.eventsair.com/secesa-2024/>
- **18<sup>th</sup> Workshop on Avionics, Data, Control and Software Systems ADCSS 2024**
  - 22-24 October 2024 (ESA/ESTEC)