A BRIDGE BETWEEN TWO WORLDS – SIMULATION & MBSE
Tools for model architecture

- System architect
- Design
- MBSE
- Model architect
- Configuration
- Co-simulation (FMU/FMI)
- Model users
- Operation
- Vehicle
- Mission
- Environment
- Env.
- Miss
- Sys
- ePWT
- PWT
- MIC
- INCOSE
- NAFEMS
Roles for model architecture

Model Design Phase at early stage

- System Architect
- Domain Model Providers
- Model Design:
  - Structural View: Model architecture design with interface connections
  - Semi-behavioral View: Vehicle and domain model specifications
  - Correctness control at early design phase

MIC: Model Identity Card

System World
- Functional View
  - Requirements View
  - Operational View
  - Functional View
  - System View: System Architecture

Model World
- Physical View
  - Fill-out domain model specifications
  - Model Development

MIC: Model Identity Card

Decision Parameters + System Architecture

GAP
Model Identity Card

Real object

Virtual object

- interface
- object / physic
- methods
- ressources
- validation

[Images of real and virtual objects, interface elements, and validation tools]

-INCOSE-

Confidential C
Pespectives

Activities for developing MIC: Systemx/prostep/Meti

  - France: IRT systemX with Renault, PSA, VALEAO and Siemens
  - Germany: Prostep-iv with OEM and suppliers
  - Japan: METI with OEM (Honda, Mazda, Toyota, Nissan) and suppliers (DENZO, Panasonic,..)
- Publication of white paper in 2020.

NAfems-Afis (AFIS = Association Française de l’Ingénierie Système)
- Discussion for starting a French group NAFEMS-AFIS for system simulation