2022 Annual INCOSE international workshop

HYBRID EVENT

Torrance, CA, USA

Jan 29 - Feb 1, 2022

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The Boeing Company

Update on ISO/IEC/IEEE CD2 24641:Systems and Software Engineering – Methods and Tools for Model-Based Systems and Software Engineering

MBSSE Process Reference Model

Four Process Groups

Plan MBSSE

- Define the scope and objectives of MBSSE
- Plan model development and governance
- Plan resources and assets
- Manage knowledge reuse

Perform MBSSE

- Perform business and mission analysis
- Perform functional analysis
- Perform system structure design
- Perform system analysis
- Perform domain design integration
- Perform system verification and validation

Build Models

- Produce system models
- Verify models
- Simulate systems using models
- Produce discipline-specific models
- Validate models
- Evaluate alternative models

Support Models

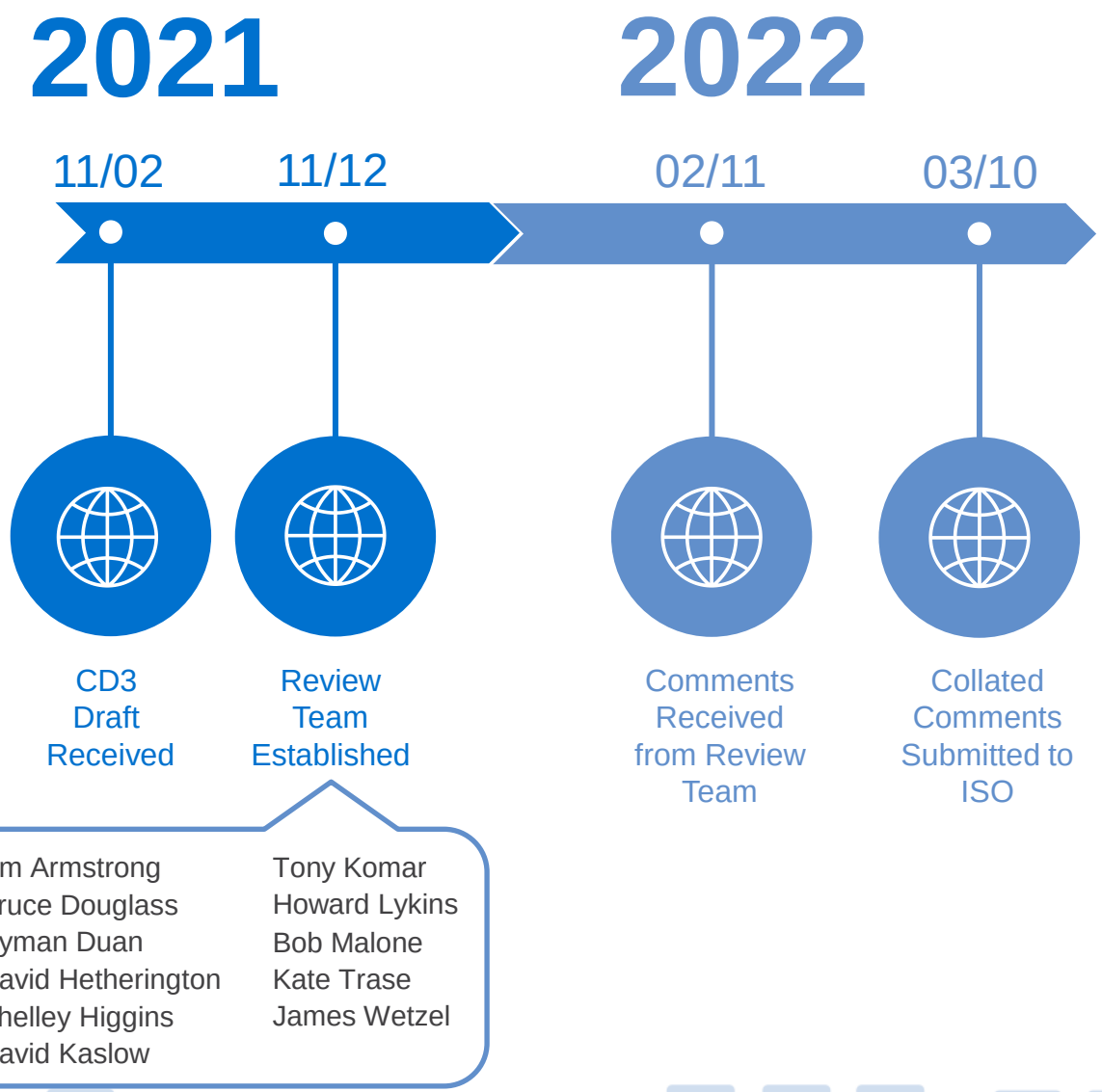
- Manage technical quality
- Manage technical configuration
- Manage data and models
- Share models for collaboration

Process Description Structure

1. Title of the process
2. Purpose of the process
3. Inputs to produce outcomes
4. Process outcomes
5. Tasks to achieve the outcomes
6. Method and tool capabilities for performing tasks effectively and efficiently

INCOSE CD3 Draft Review

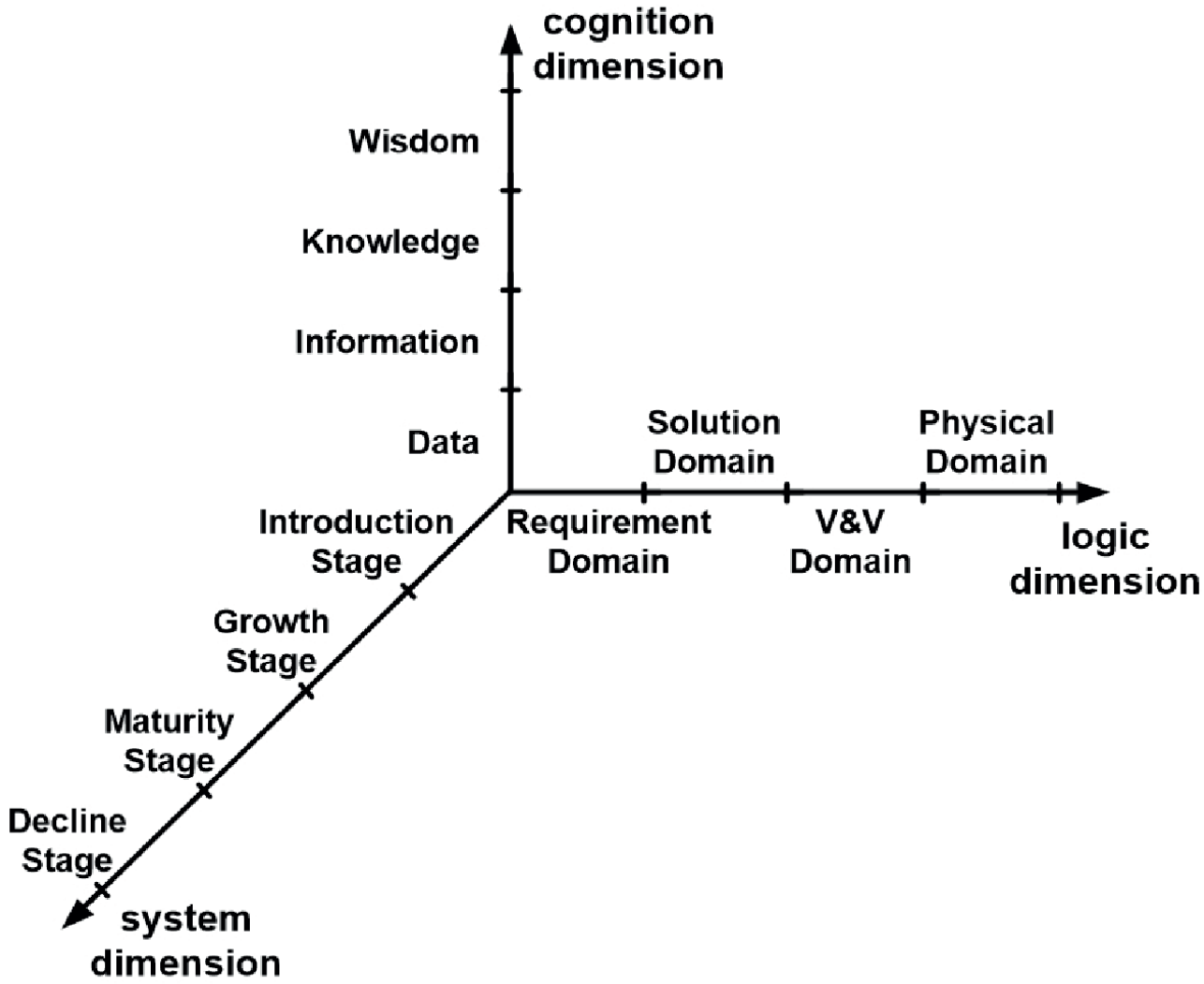
INCOSE CD3 Draft Review Process



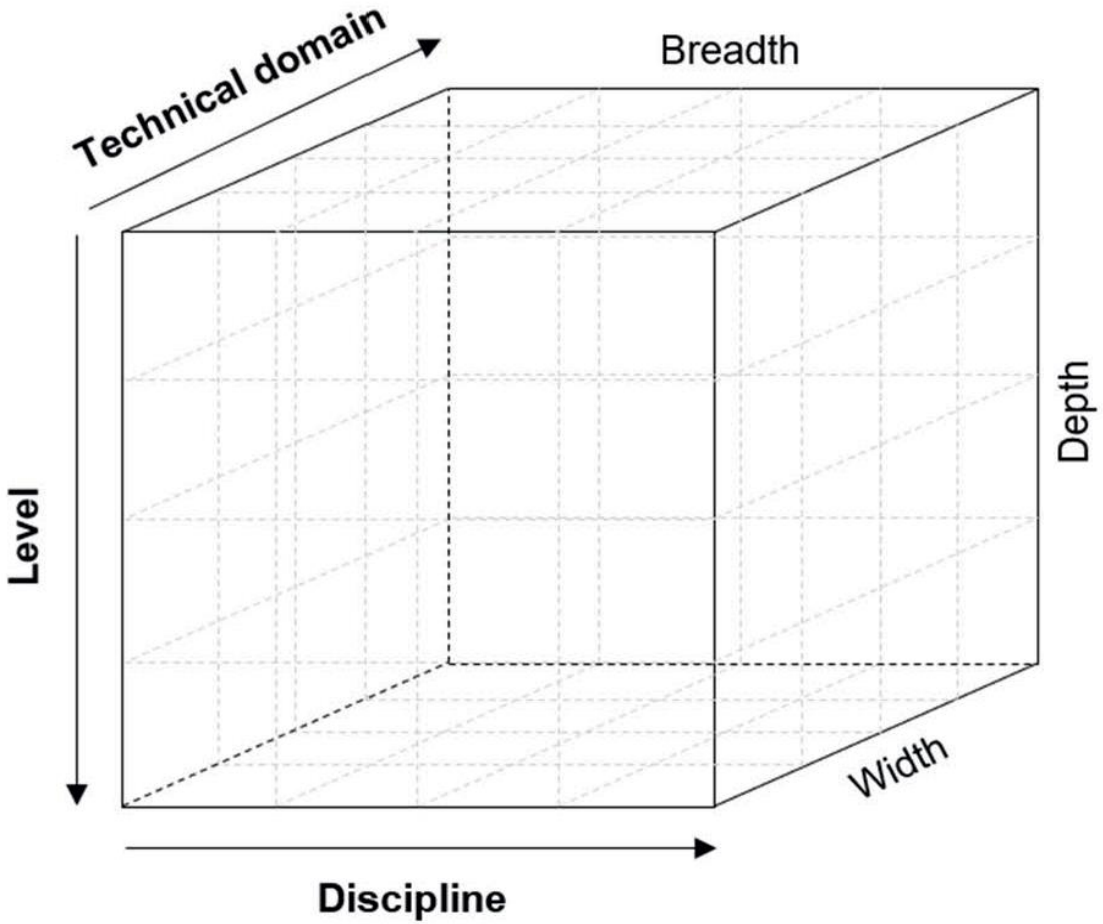
Major Changes from CD2

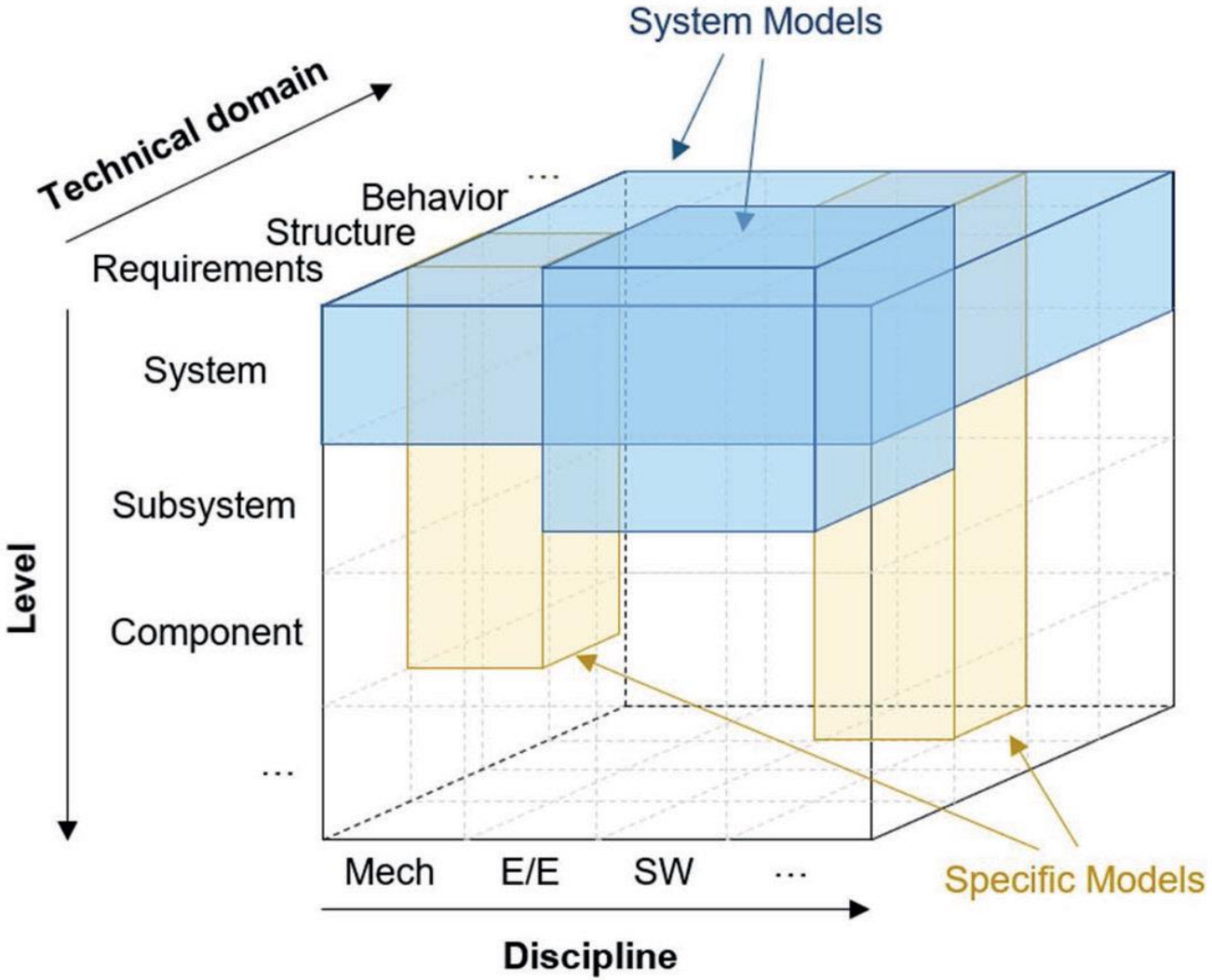
Section	Type	Title	Modification
5.1	Process	MBSSE Reference Framework	Moved to new Annex A and content greatly expanded
Annex A	(informative)	Example of MBSSE roles	Moved to Annex D
Annex B	(informative)	Relationships with ISO/IEC/IEEE 12207 and ISO/IEC/IEEE 15288	Removed
Annex C	(informative)	Relationship with other international standards and relevant frameworks, languages and systems	Moved to Annex E
Annex A	(informative)	Instantiation and customization of a MBSSE Reference Framework	Added, incorporates content from section 5.1
Annex B	(informative)	MBSSE – SYSTEM MODEL – DIMENSION	Added
Annex C	(informative)	MBSSE – MODELS – DEFINITIONS - RELATIONSHIPS	Added

Annex A (informative) - Instantiation and customization of a MBSSE Reference Framework

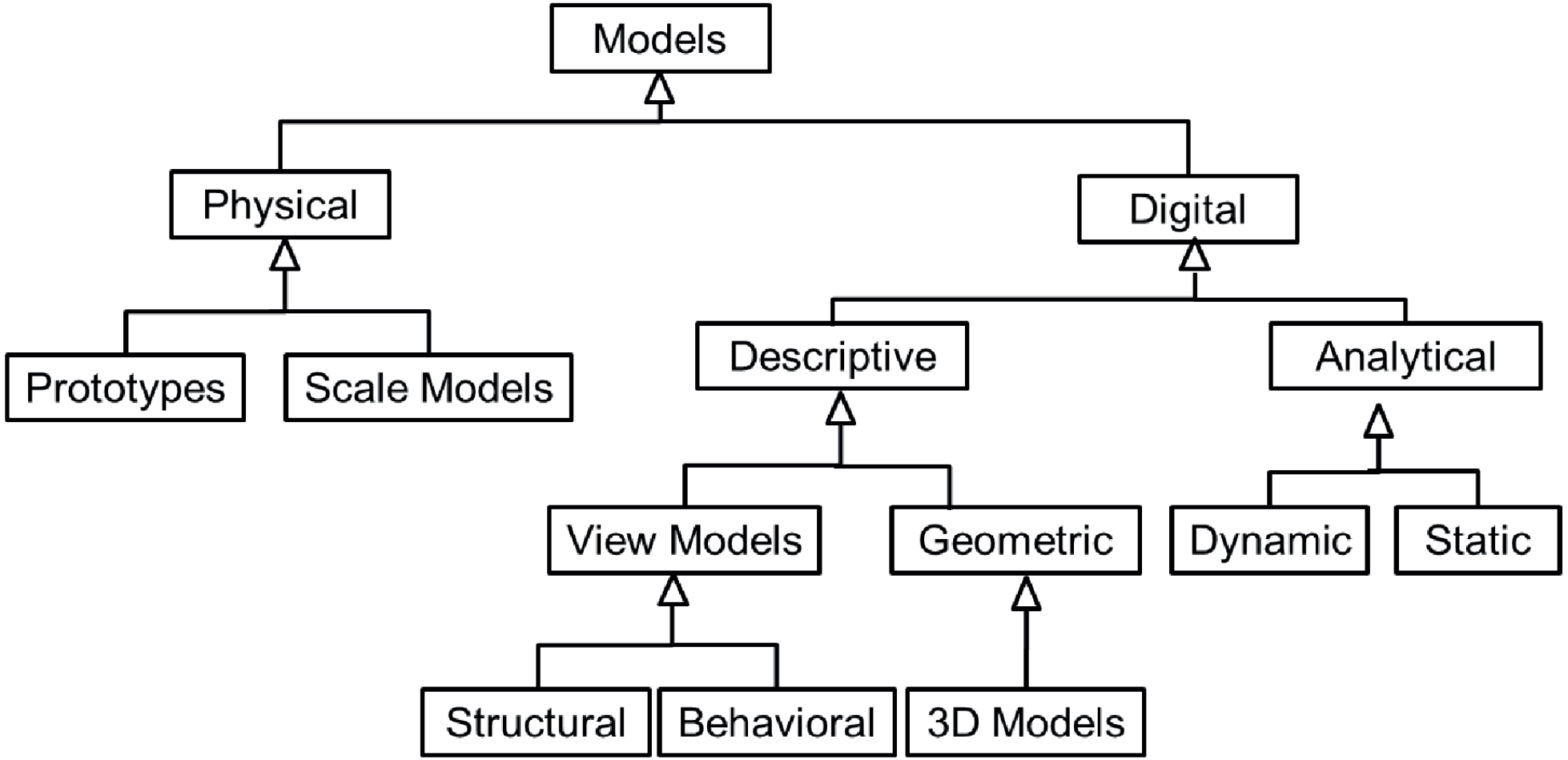


Annex B (informative) - MBSSE – SYSTEM MODEL – DIMENSIONS





Annex C (informative) - MODELS – DEFINITIONS – RELATIONSHIPS



Adapted from System Engineering Body of Knowledge (SEBoK) - Modeling definition

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