

JT as standard format for tomorrow's digital world

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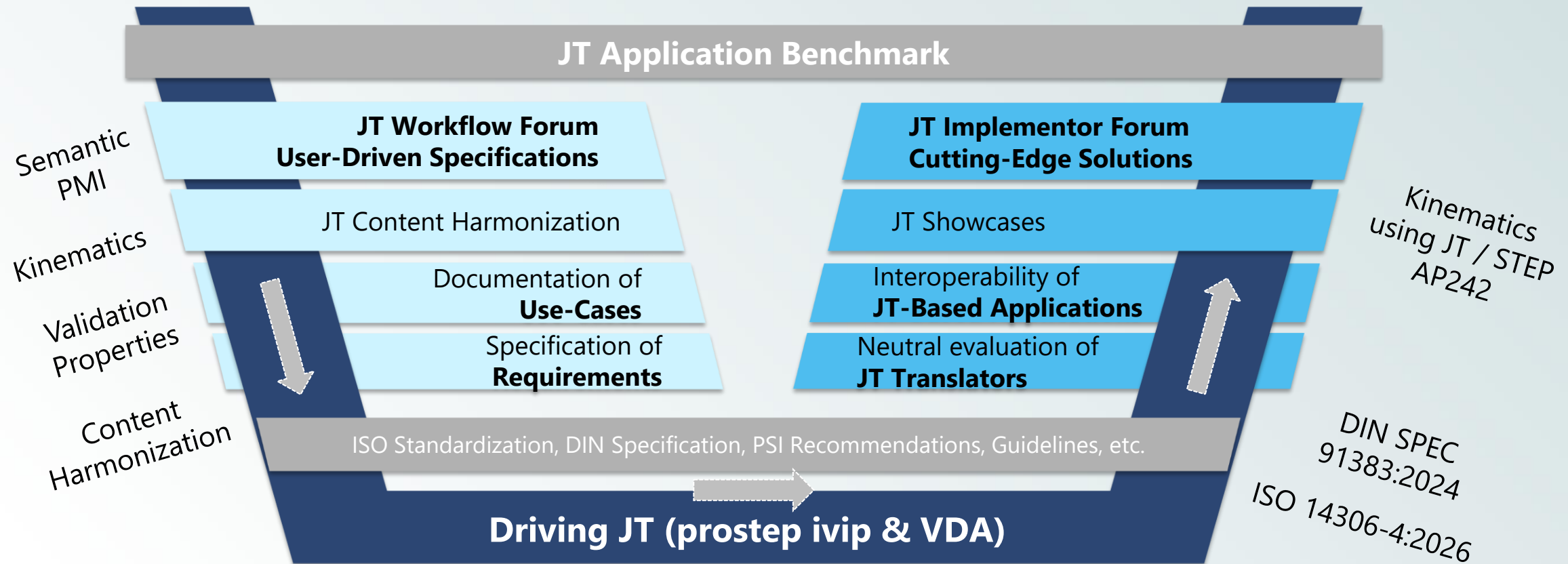
JOCHEN BOY
PROSTEP



Thu., 1 October 2026 | nh Frankfurt Airport West | Raunheim, Germany

Driving JT in prostep ivip & VDA: JT Workflow & Implementor Forum

A remarkable environment to push maturity and adoption



JT-WF Members 2026



38 use cases defined by JT-WF

JT as backbone to implement all digital engineering use cases

● - AI non capable ● - AI capable

JT

AI for JT Use Cases

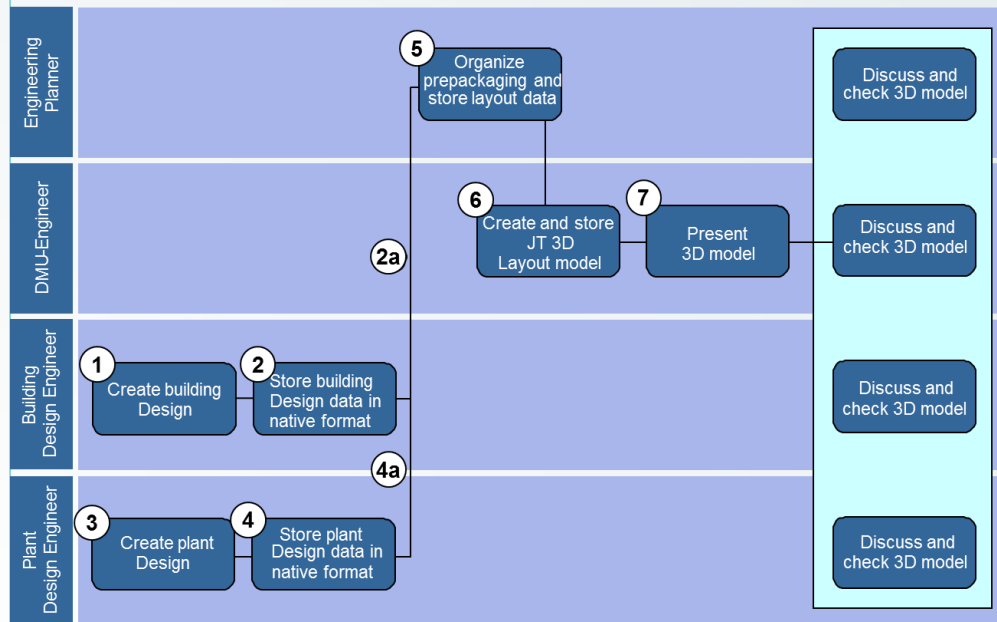
- Provide documentation of
- Use cases
- Best practices
- Implementation Guidelin
- Content Harmonization e

- Provide documentation of
 - Use cases
 - Best practices
 - Implementation Guidelines
 - Content Harmonization etc.

Best practices **AI** for JT Use Cases

Use Case 11: JT for Factory DMU

The aim of this use case is that JT can be used as a data carrier to exchange information between standard and high-end visualization DMU/VR-tools, and plant and building design-tools. The actors in this use case are the engineering planner, the DMU engineer, the building design engineer and the plant design engineer. The preconditions for this use are that factory and building layout have reached a certain project status and are available in JT.



Clash detection prioritization:

Random Forest, XGBoost, Autoencoder

STEP 5:

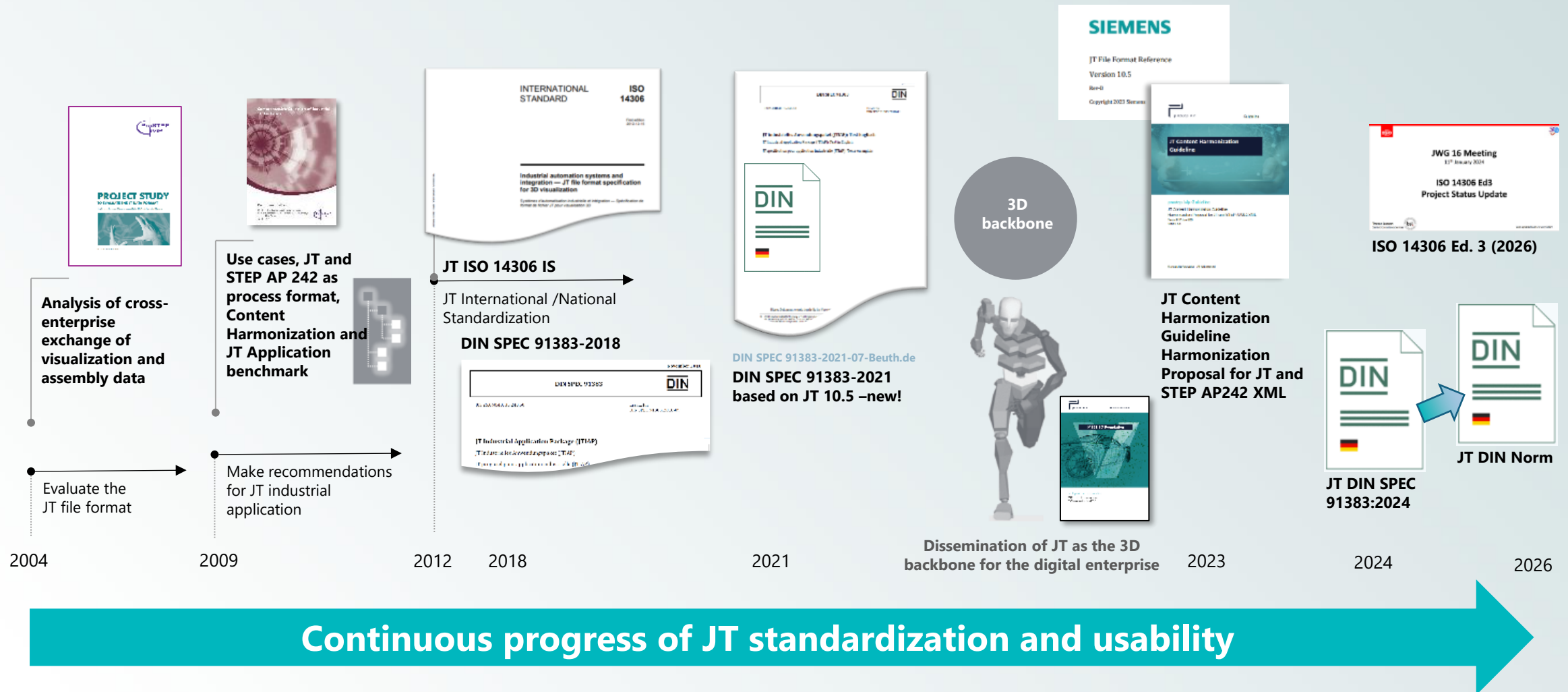
Clash detection prioritization

- Detects all collisions in a DMU.
- Prioritizes them by severity.
(Which one will truly block assembly?)
- Learns from past issues which clashes matter most.

Benefits

- **Time:** Engineers focus only on important clashes
- **Cost:** Less rework
- **Quality:** Higher assembly feasibility

Driving JT as 3D backbone in the prostep ivip association



DIN SPEC Update 2025 - Overview

DIN SPEC 91383

- 🕒 Published 2018, updated 2021 and 2024
- 🌐 Available in English, worldwide, **free of charge**
- 👍 **Benchmark for industrial usage of JT**

PSI 14-1: JT file format specification based on 10.5

- **Unique attributes** added for surface and material designation according to VDA 321-300.

PSI 14-2: Industrial use cases that run on JT

- Describes and covers **38 use cases** of application industry:
Visualization – interoperability – long-term data archiving – data exchange
- Use case **JT for Material Specification** updated.



NEXT STEP

Structure and Content of future DIN Norm for JT

Part 1 – Overview of new DIN Norm

- General content, basic principles, versions overview

Part 2 – Terms and Definitions

Part 3 – Industrial Use Cases

- 38 Use cases today (Part PSI 14-2 of current DIN SPEC)
- New: Required JT file format version for each use case

Part 101 – JT file format specification based on 10.5

- Technical specification (Part PSI 14-1 of current DIN SPEC)

Part 102 – JT file format specification based on 10.11

- Technical specification of latest JT version



- **Aim:** Benchmark for industrial usage!
- Published **in English**
- **Target group:** Companies worldwide

Draft!
In work and subject to
modifications.

DIN SPEC to DIN Norm

We transform DIN SPEC 91383 into a DIN Norm!

- Activity and DIN Working Group „JT Standardization for the Industry“ (NA 060-30-12-01) kicked off on October 30th, 2025
- Meeting rhythm: 6 weekly
First meeting in presence: April 13th
- **Our mind set:** Meet needs of worldwide industry, be relevant, be fast!

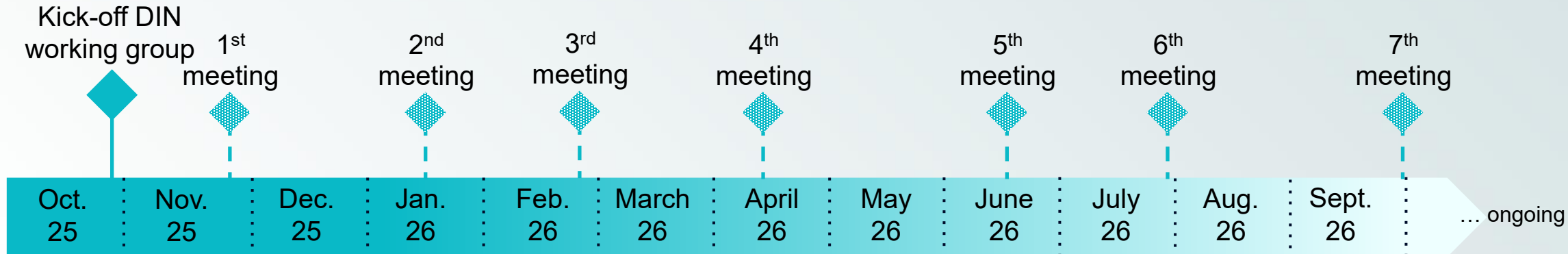


Joining companies



Mercedes-Benz

AIRBUS



JT Workflow Forum Subgroups

Content Harmonization 

- File and Product Structure
- Properties
- Geometry Settings
- PMI Data
- General Information

 **BOSCH**

 **Gulfstream**

 **MTU** Aero Engines

 **em** engineering methods AG



Kinematics

- AP242 XML & JT
- Mechanism
- Motion



Validation Properties

- Geometry
- Assembly Structure
- PMI



Semantic PMI

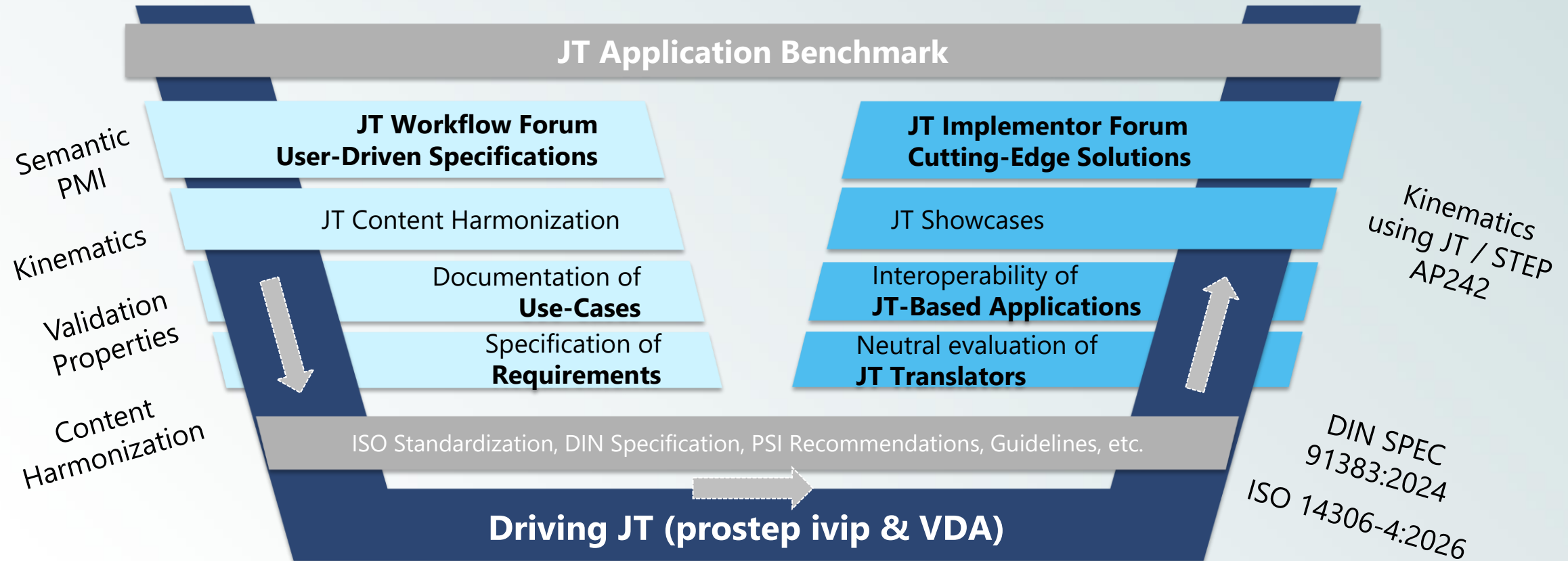
- Single-Part PMI in JT
- Assembly-Level PMI in AP242 XML & JT
- Design Exchange
- Downstream Use



JT Workflow & Implementor Forum

⇒ Drive JT for industrial Usage and Interoperability

We continuously push maturity and adoption of JT and AP242XML for industrial Use Cases



JT-IF Members 2026



New (September 2026)



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Project Management, VDA AK DPE



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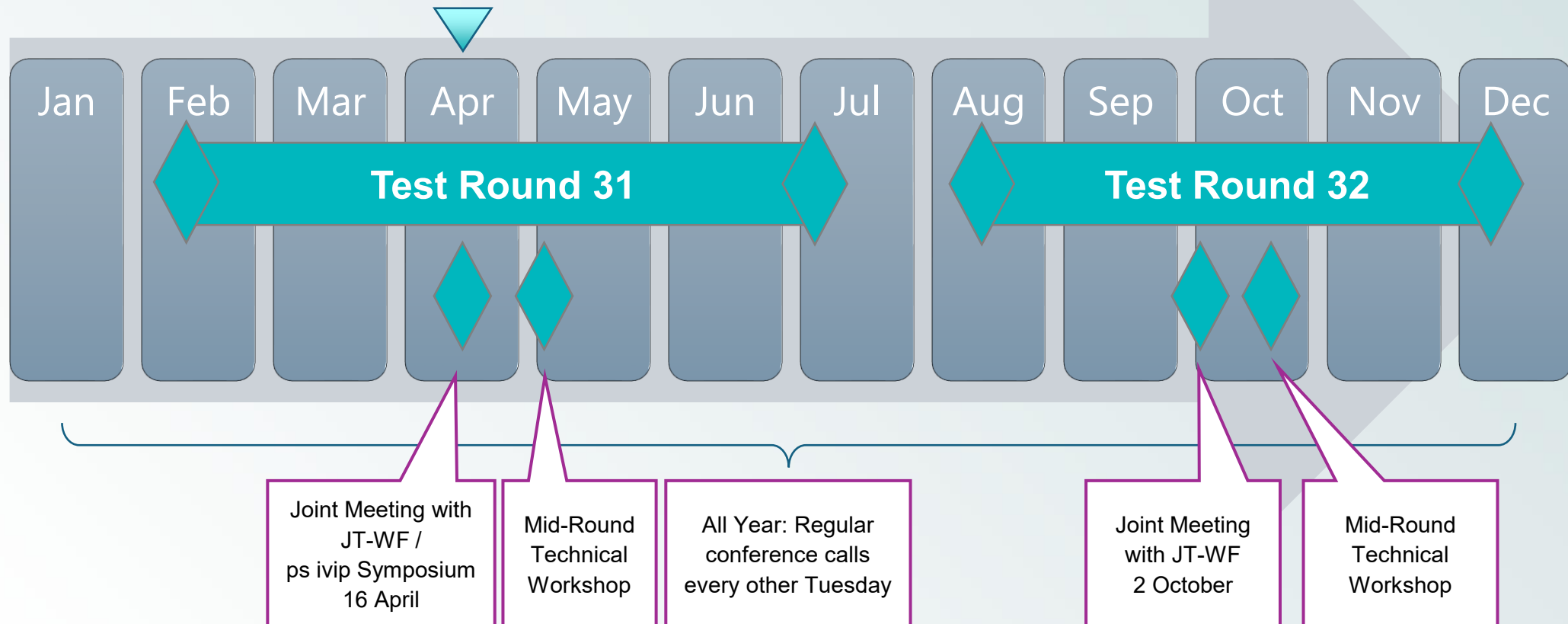
Project Management



Project Coordination

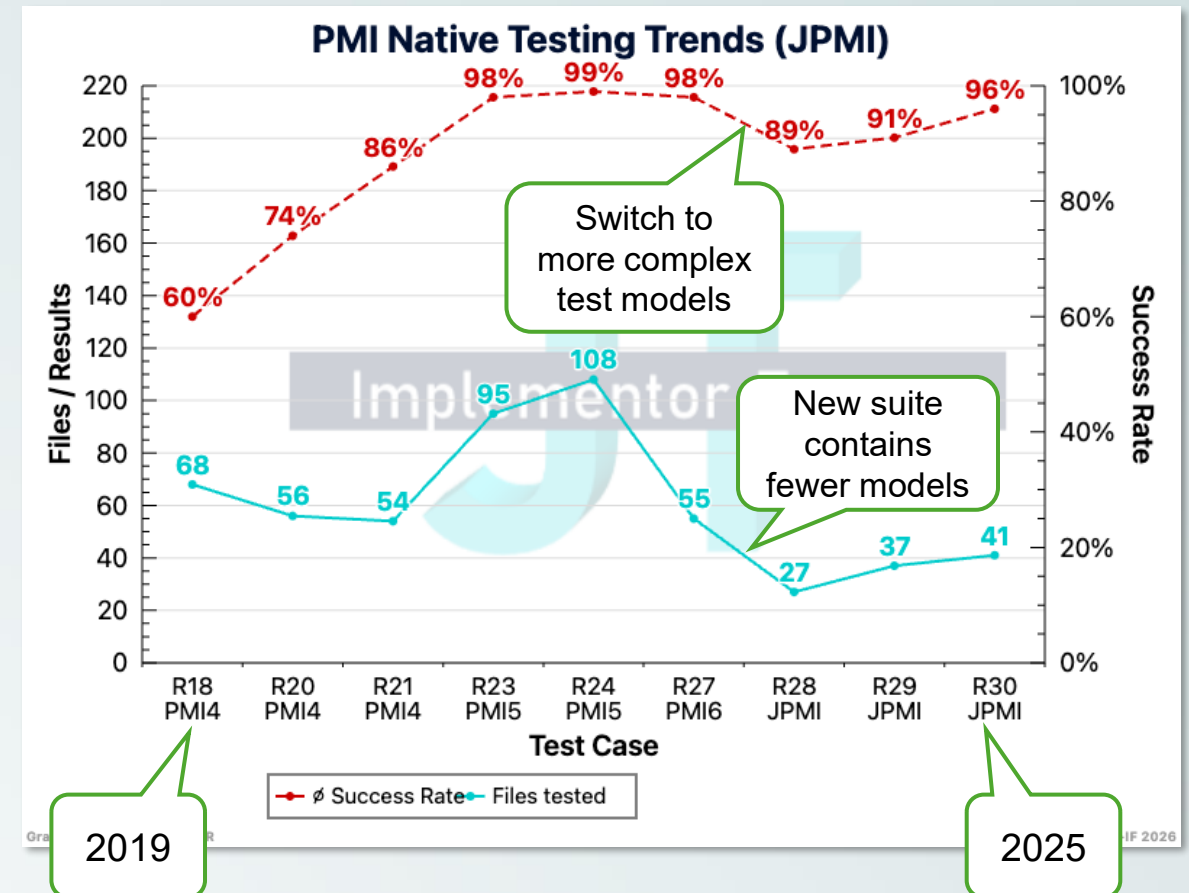
JT-IF Implementor Forum – Schedule 2026

Two Test Rounds – Two face-to-face meetings – Distributed testing with online alignment



Product & Manufacturing Information (PMI) Progressing from Single Parts to Assemblies

- PMI have been tested in the JT-IF for about 10 years
- Increasing complexity over time
 - Atomic test cases (NIST)
 - Complex test cases (NIST)
 - Industry-level test cases (JAMA/JAPIA)
- CAD system support and JT translator reliability has increased constantly
 - High level of vendor engagement
- Next level of complexity:
 - Assembly-level PMI

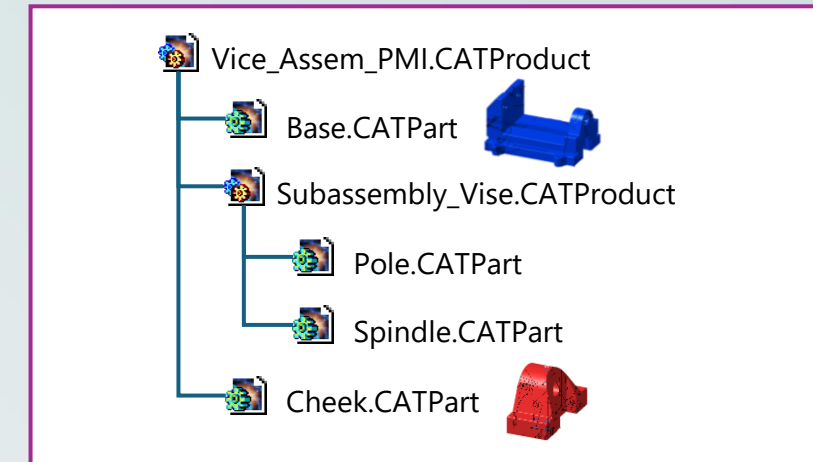


Use Cases for Exchange of Assembly PMI with JT

(1) Monolithic JT Assembly PMI – in progress, good initial results

- Single JT file contains assembly structure, geometry, and all PMI (part & assembly level).
- Customer treats assembly as one “part” in PDM.
- Typical OEM-Supplier integration scenario.

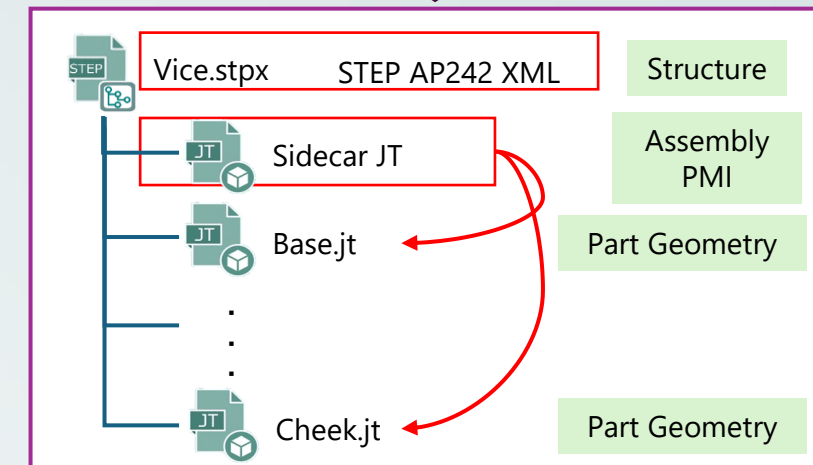
Goal: Extend scope of JT-IF Implementation Guidelines.



(2) Assembly PMI with STEP AP242 & JT – new topic for 2026

- AP242 XML files with assembly structure
- Assembly-level in PMI in “sidecar” JT (short-term) or AP242 XML (long-term)
- JT Files for part-level geometry
- Customer may treat assembly as structure in PDM.
- Typical in-house / downstream scenario.

Goal: Gain experience with linked information between AP242 XML and JT.
Achieve operational maturity and robustness for industrial usage.



Kinematic Mechanisms

Use Case:

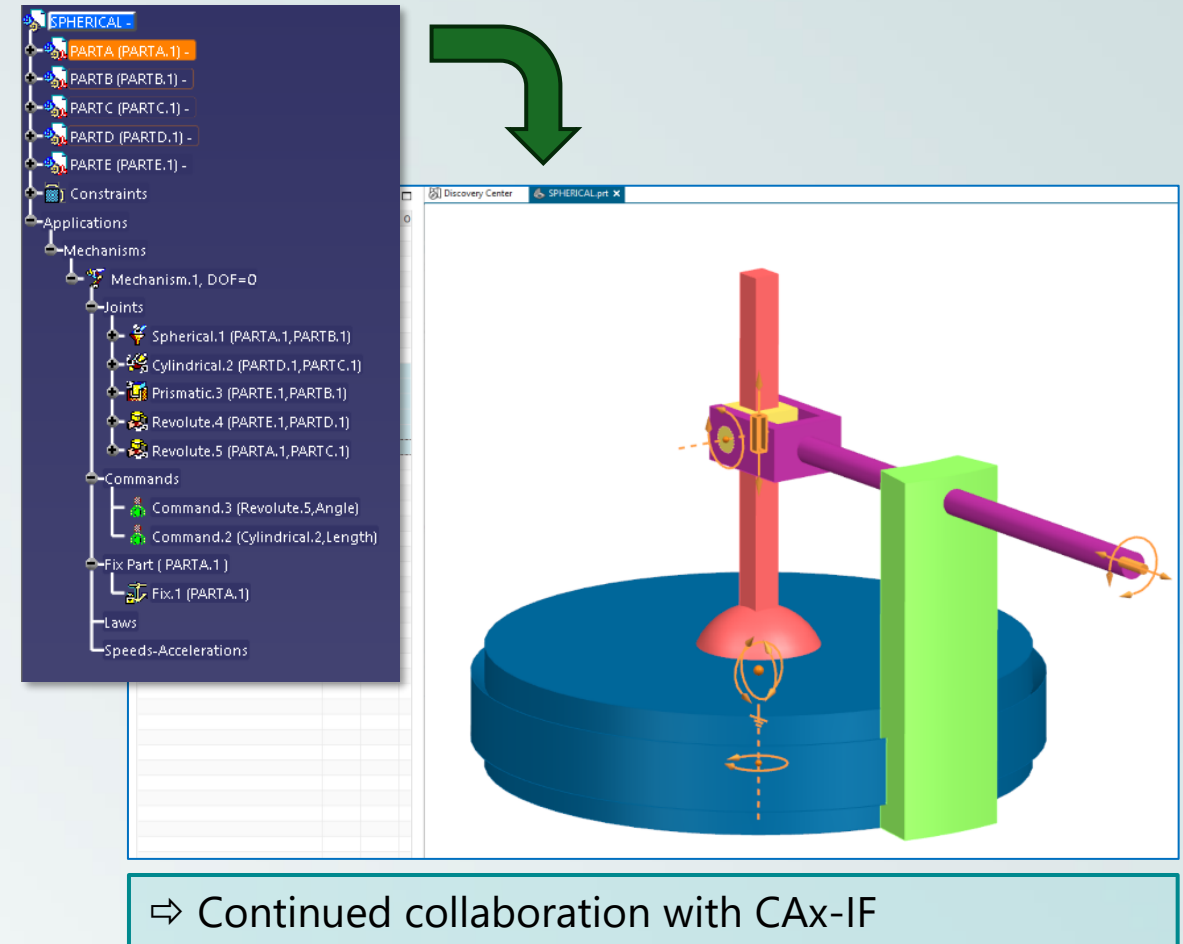
- Transfer of kinematics joints, limits and actuations

Goal:

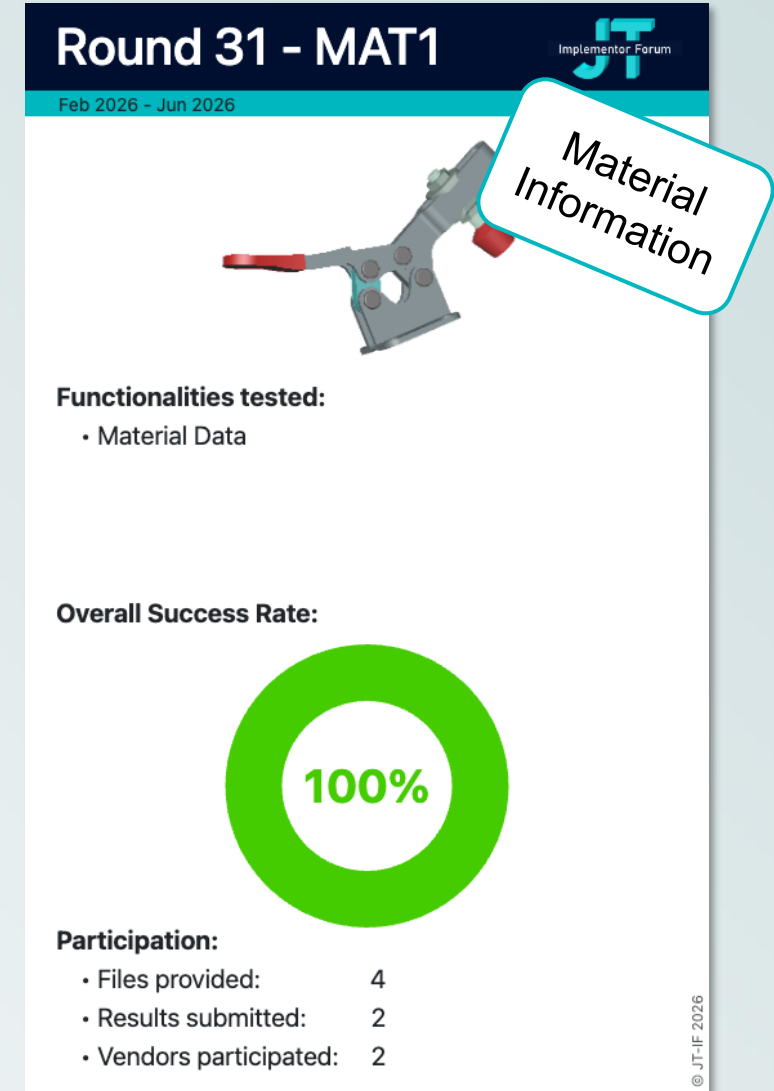
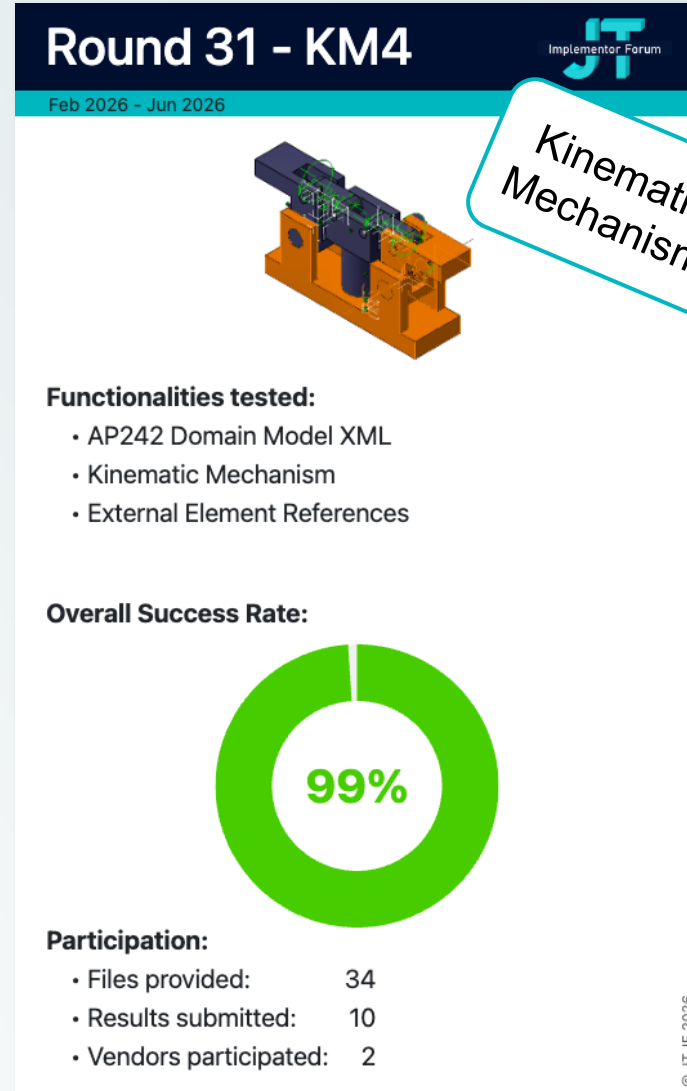
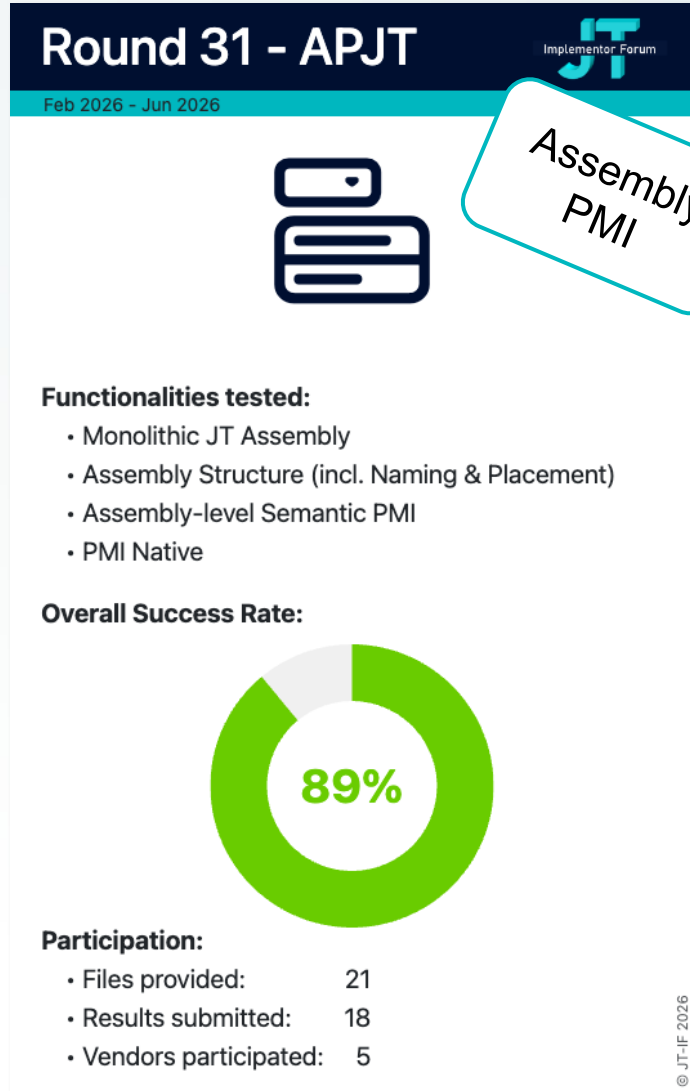
- Working mechanism in target system

Scenarios:

- (1) Low-Order Pairs – **widely implemented**
 - E.g., revolute, prismatic, spherical
- (2) Low-Order Pairs with Motion Coupling – **ongoing**
 - E.g., gear, rack & pinion, chain
- (3) Structure Test Cases – **ongoing (new)**
 - E.g., groups, multiple occurrences
- (4) High-Order Pairs – **future scope**
 - E.g., point on surface, roll on curve
 - Requires External Element References to JT Geometry

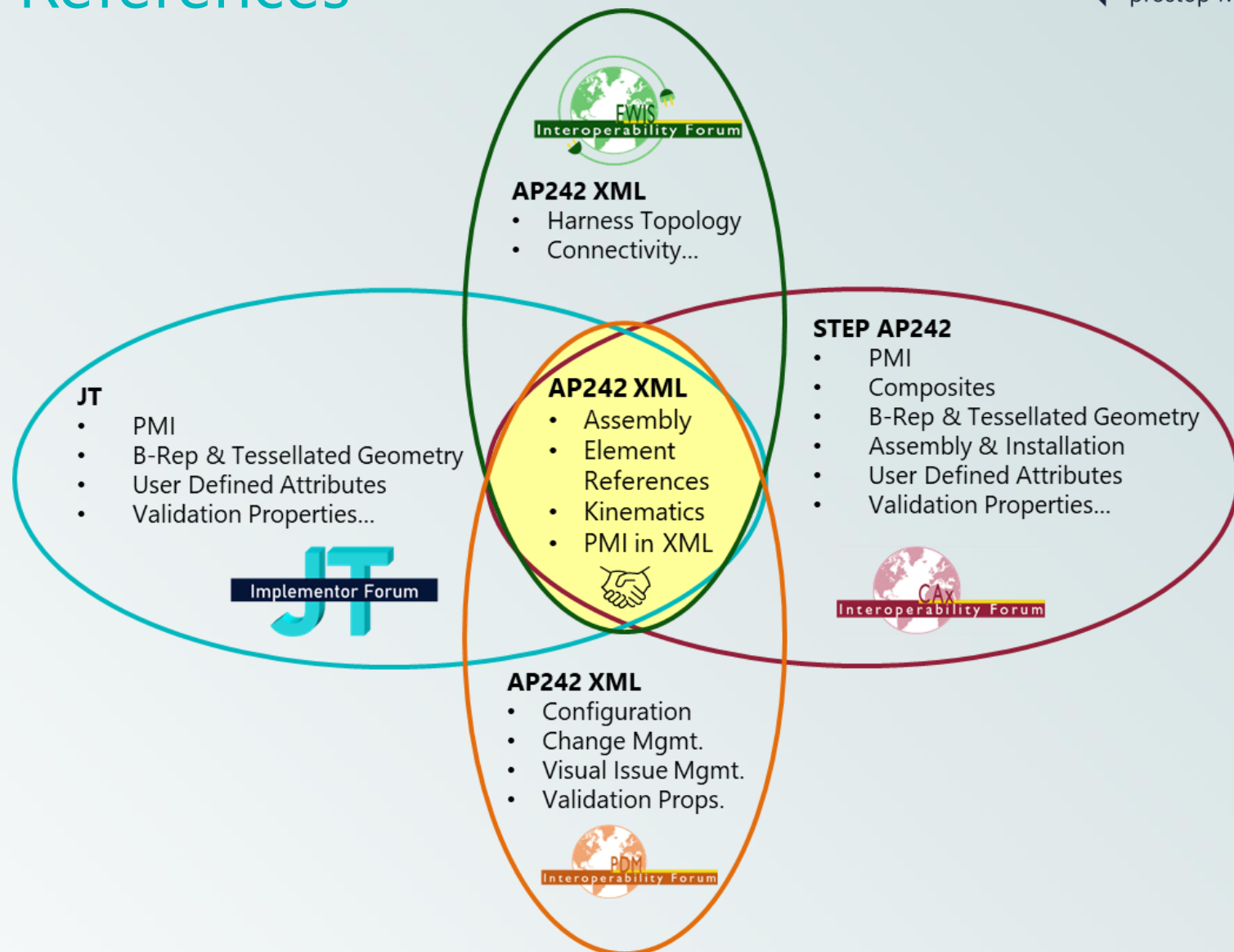
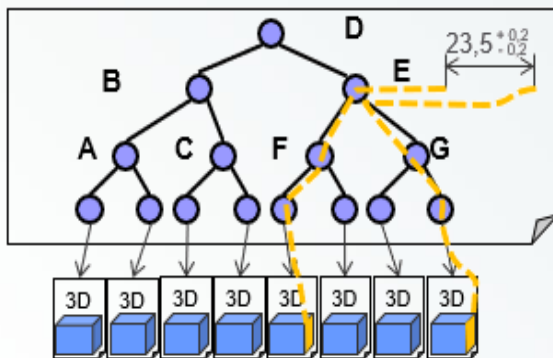


Current Testing Results – Round 31 (June 2026)



AP242 External Element References

- A common interest of these four groups:
External Element References (EER)
- Supported with **AP242 Edition 4**
- **Aim:**
Harmonized approach for driving use cases, JT and STEP as geometry formats.



Driving JT in the prostep ivip Association

Please join us - we are open for any industry areas!

Thomas Ott, AUMOVIO

Bernd Watzal, Mercedes-Benz



We say thank you!

Please
join us!