



Business Decision Support System (BDSS) AIRBUS perspective

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Name
April 2018

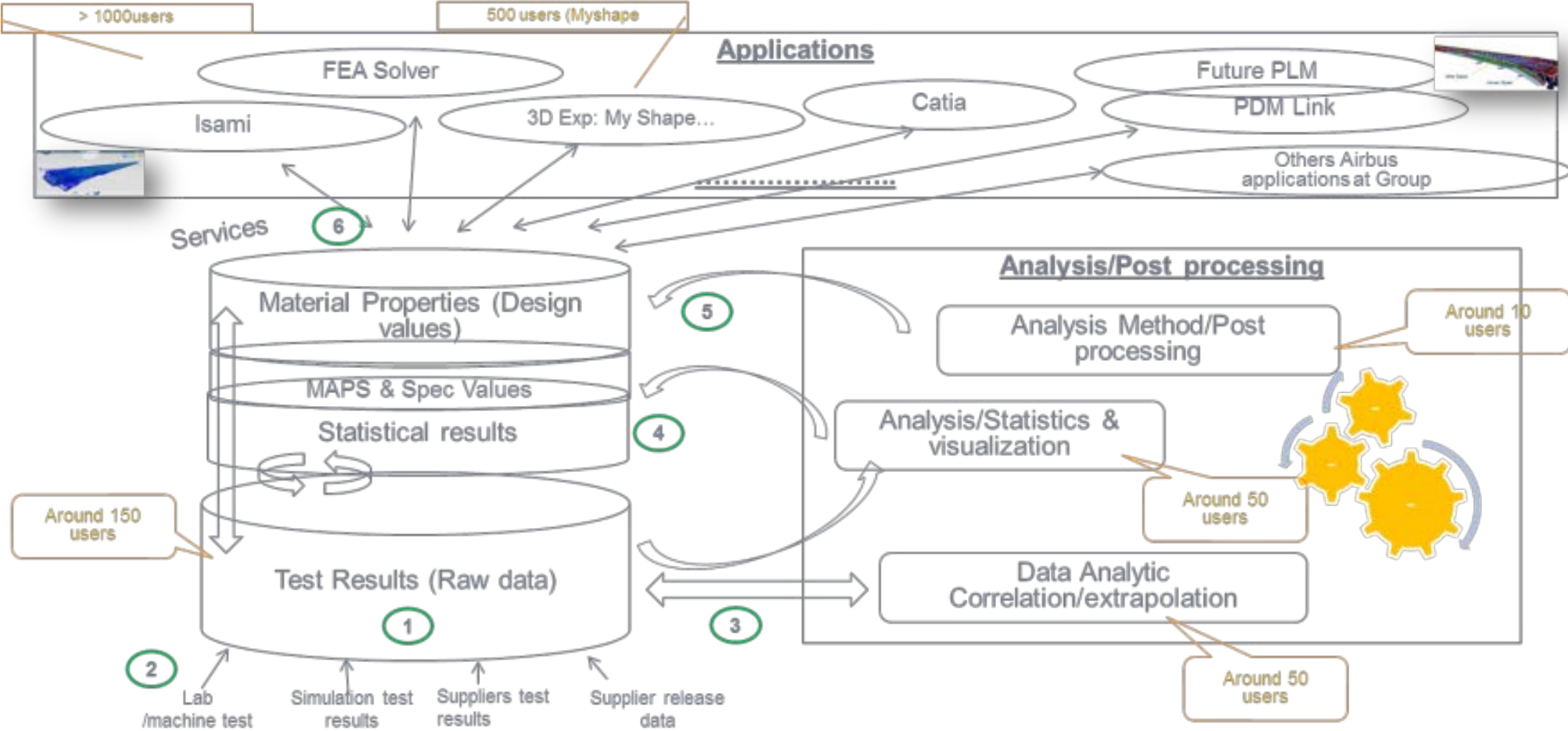
AIRBUS

BDSS talk

- 1. Tell us about your decision-making tool or methodology (BDSS) and how it integrates material model outcomes: is it a spread sheet? a discussion between key internal/external stakeholders? a single button, fully automated tool? a project management tool (e.g. JIRA)? a combination of the above?
- Decision is mainly based on agreement between key internal stake holder in Multi Functional Team(Engineering , Manufacturing, Procurement) and during Critical design review with programs.
- No BDSS tool covering the whole process but team discussion and decision tool for each stakeholder skill
- Discussion with external Supplier is done with MFT support and provide direction for new developments

- 2. What models are integrated in your BDSS: nature of the models (electronic, atomistic, mesoscopic, continuum)?
- Not yet atomistic model in airbus
- Micro model : testing phase with COTS (e.g. ALTAIR, XSTREAM,) or SME (e.g. Multimechanics) and research (FIDMAC, ...)
- Mesoscopic model /continuum : Airbus internal model developed as ABAQUS subroutine. DASSAULT is a key partner for future development .
- Models Could shorten screening phase and decrease qualification/certification cost.
- Database of test results could be key to support prediction based on big data

Example of AIRBUS development for material database/ decision help



BDSS talk

- 3. Who are the main actors using the BDSS, and what types of projects do they use it for: managers, materials engineering, modelers, etc. (exact job titles preferred)? Who is initiating discussions, who feeds the information into a business decision, etc.? What phase in the product life cycle is it used for (e.g. research, design decisions, etc.)?
- Engineering (Material & process , Structural analysis, Designer)
- Procurement
- Manufacturing
- Quality (internal & supply chain)
- Programs

- Each stake holder could initiate the discussion

- Mainly First phase of programs where design principle & material are chosen would benefit from BDSS. It could be also used for Recurring Cost saving initiative in later stage of programs (introduction of double source for cost decrease)

BDSS talk

- 4. What are the main benefits, or key performance indicators, linked with integrating material model output with business decisions: reduced cost, product improvements, reduced time-to-market, and/or other business benefit?
 - KPI : Reduction of lead time and cost.
 - Better understanding of material for design optimization → product improvement
 - Simulation for larger number of materials. Enlarge material selection to identify relevant one
 - Manufacturing process optimization
 - Knowledge transfer from past experience (big data exercise)
- 5. Is your BDSS working successfully to include materials modelling outcomes? What is your vision of success?
 - Integration of reliable models is a key success factor of BDSS
 - User friendly platform for very different stakeholder (engineering, procurement , ...)
 - Collaborative platform to allow real optimum solution

Thank you