# Making Collaborative Engineering more Efficient
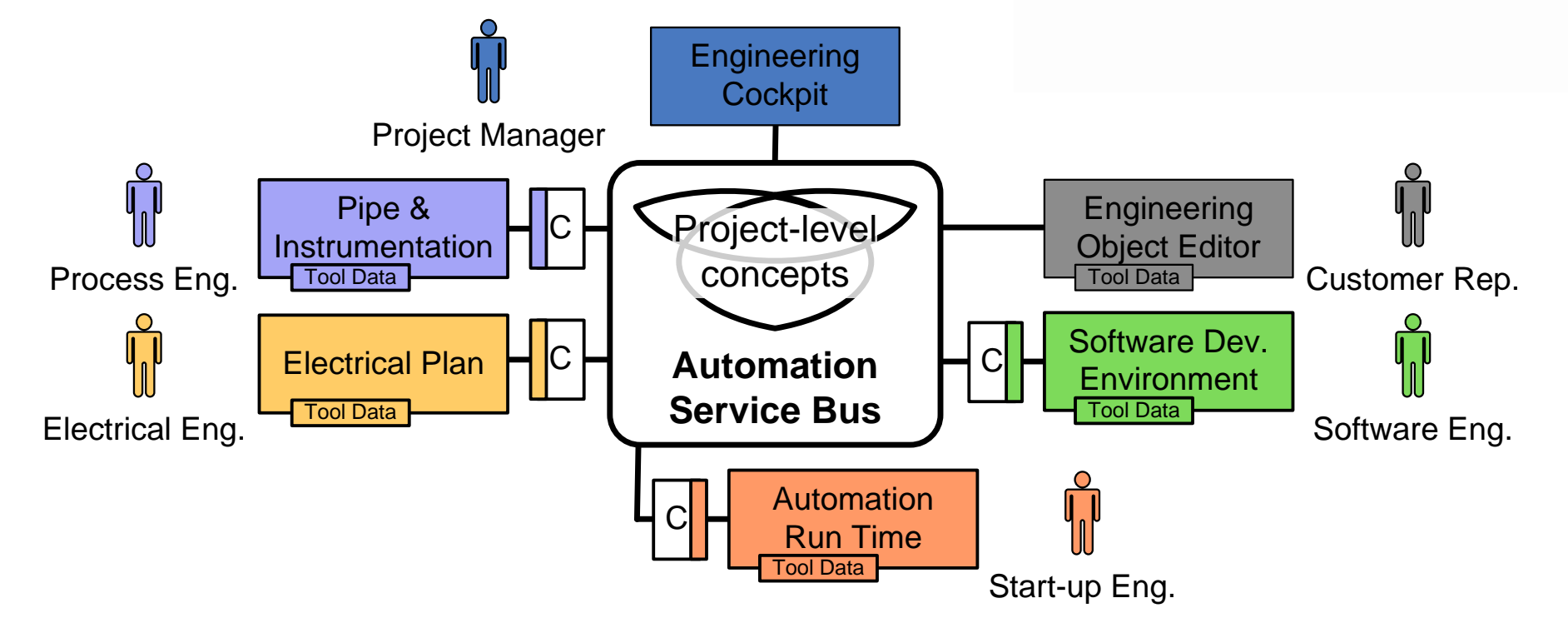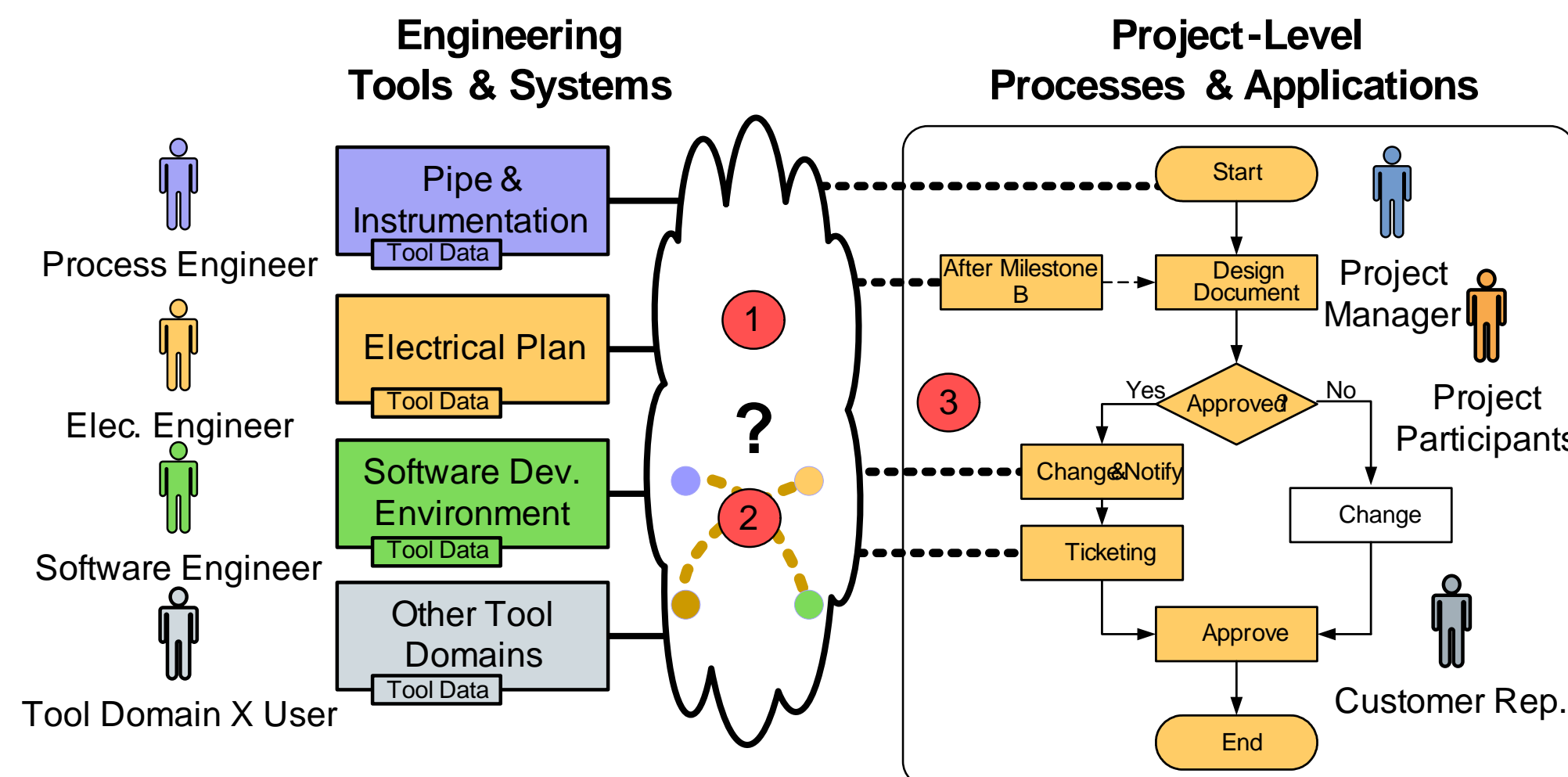# Key Use Cases from Industry Projects

Vienna University of Technology

Christian Doppler Laboratory
Software Engineering Integration for
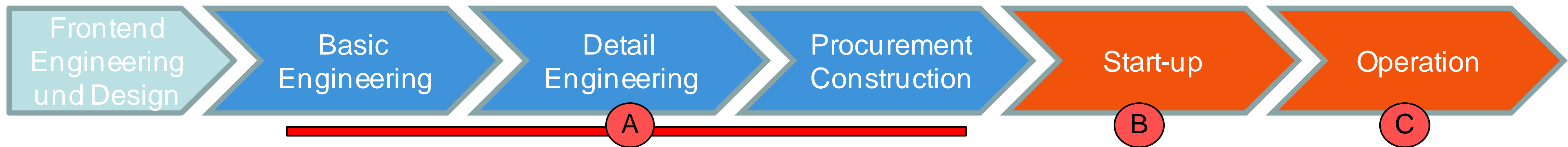flexible Automation Systems



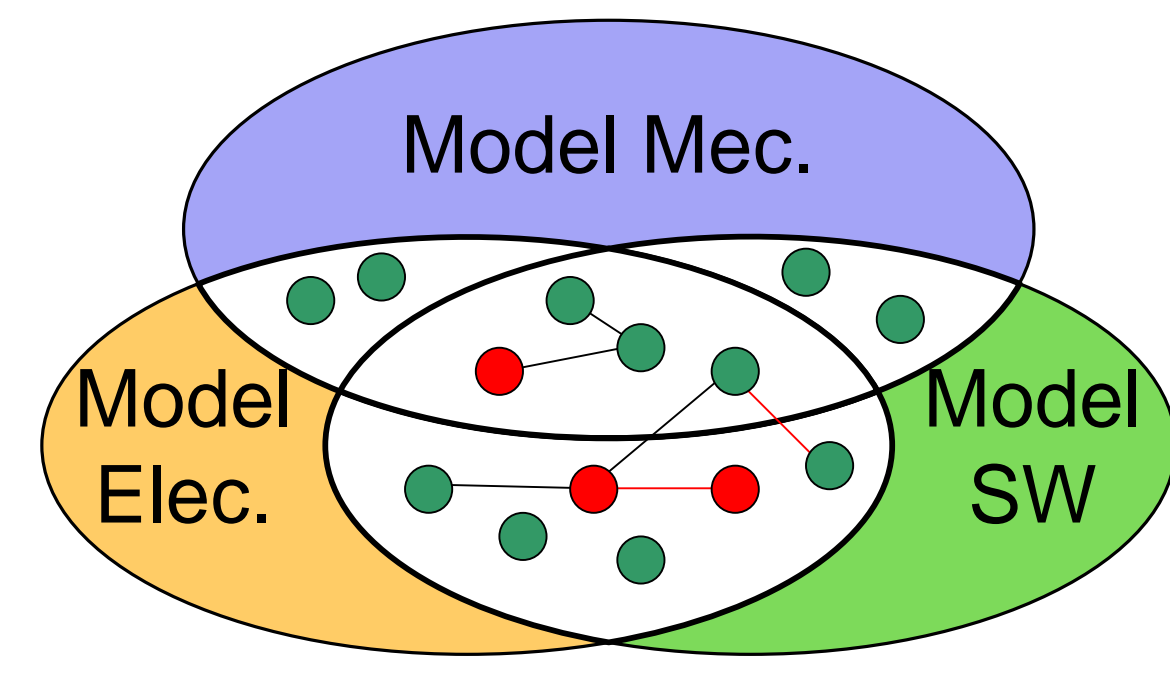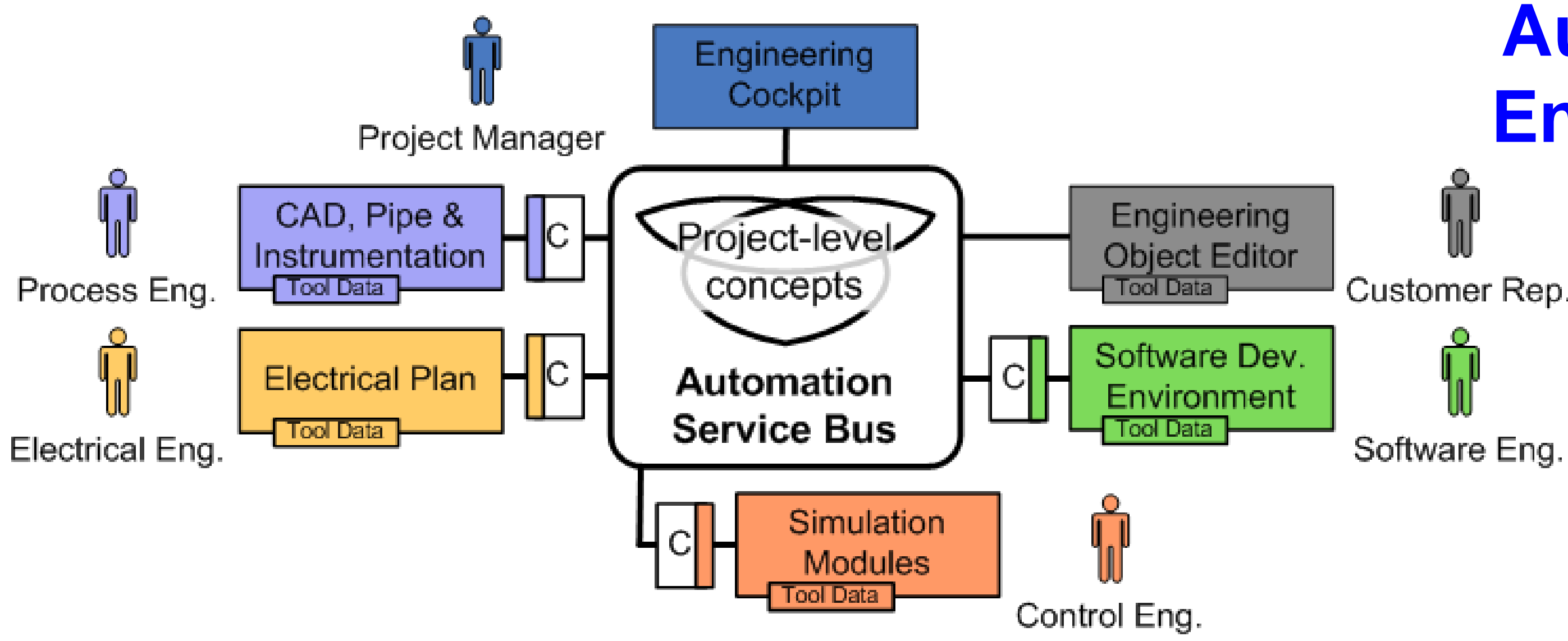## Engineering Challenges of large-scale Industrial Facilities
### Engineering Polynesia & Babylon



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## Process Challenges of Facility Engineering

Frontend Engineering und Design → Basic Engineering → Detail Engineering (A) → Procurement Construction → Start-up (B) → Operation (C)

## Automation Service Bus And Engineering Knowledge Base



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### A B Traceable Tool Chains with AutomationML
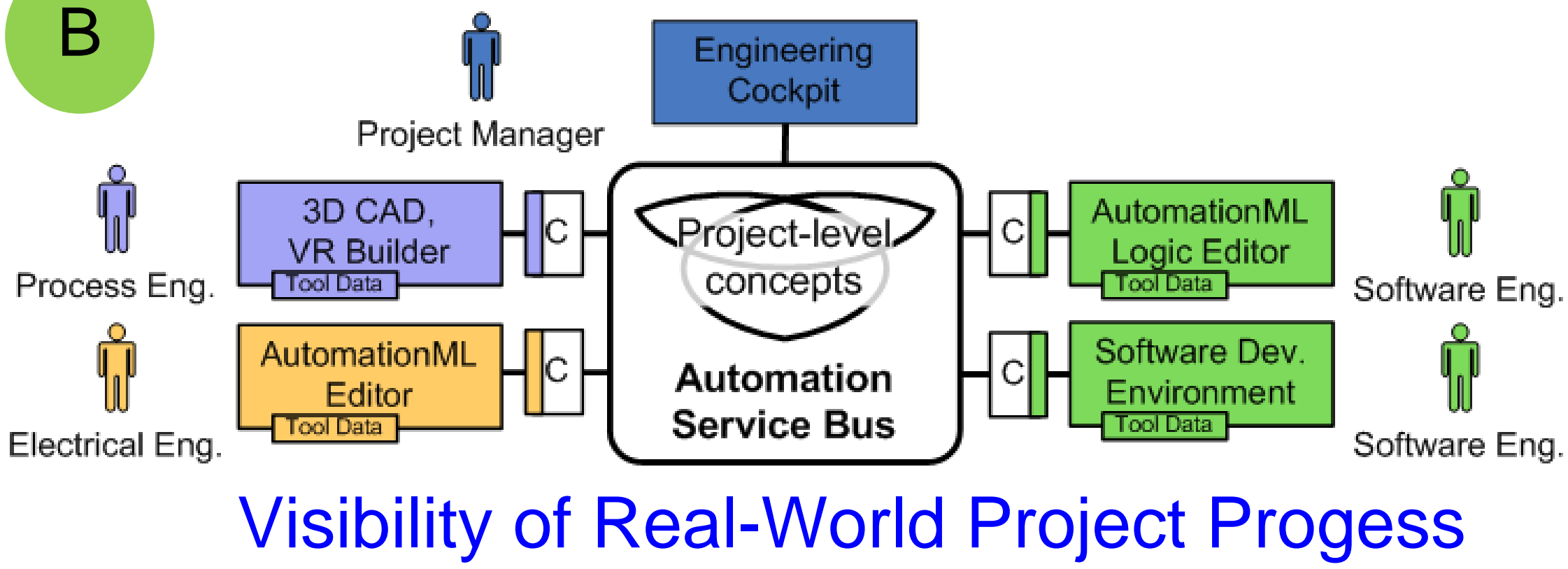


Visibility of Real-World Project Progess

Observing    Versioning

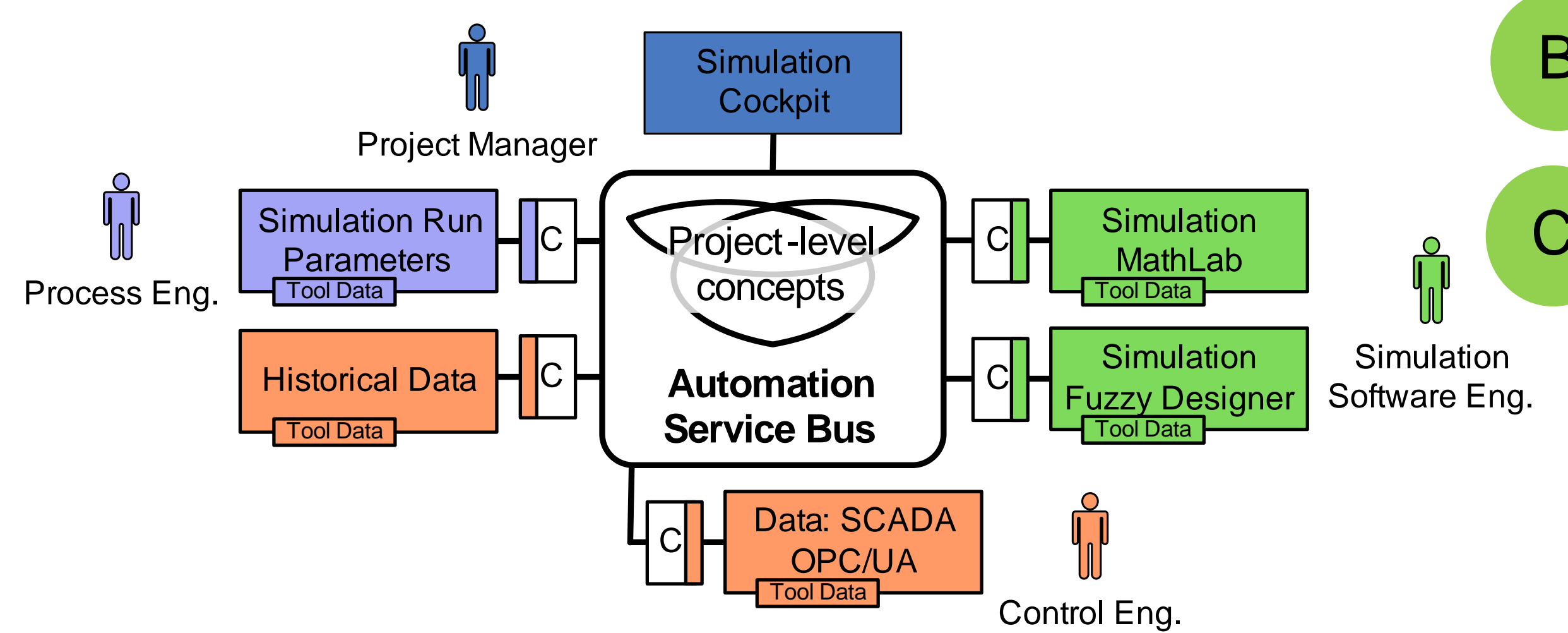### A B Efficient Quality Assurance of Project Results of External Partners
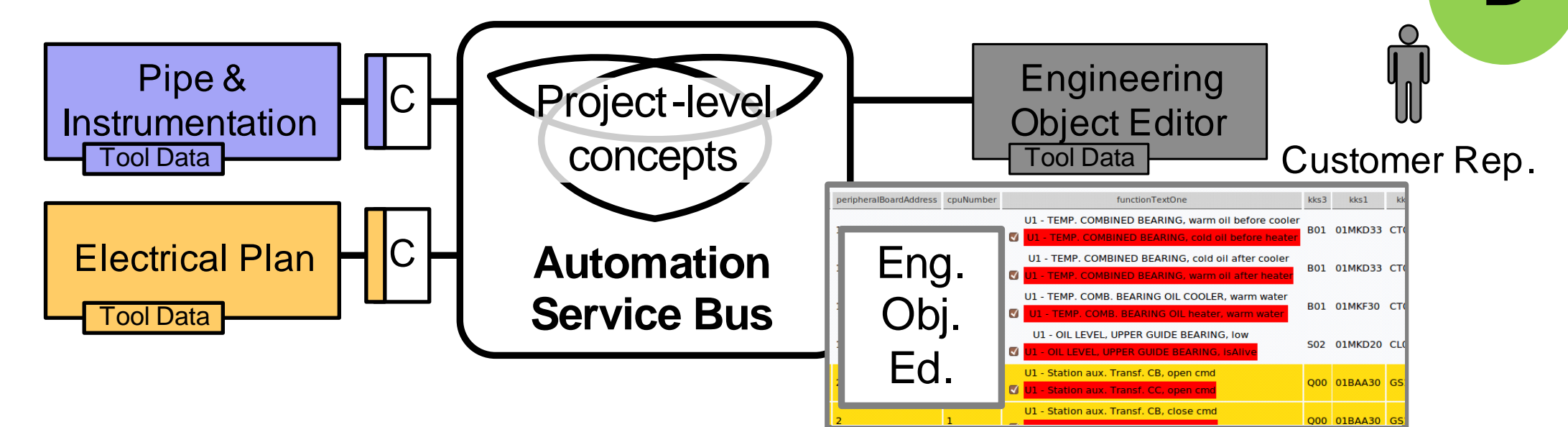


Person Hours instead of Person Days

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### A B Tracing Changes in the Engineering Cockpit
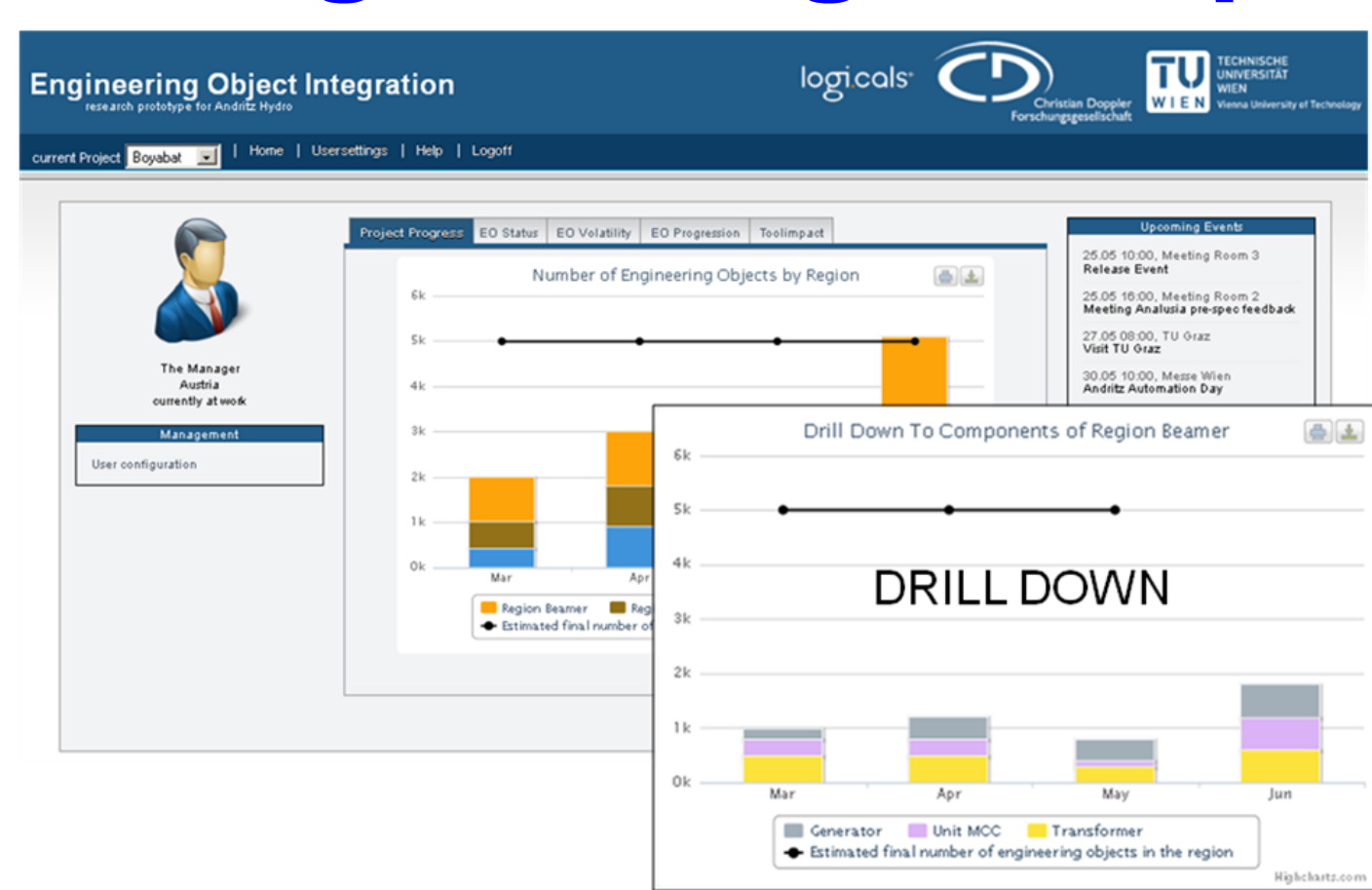


Traceability of Changes across Multiple Engineering Object Version

Tracing    Simulating

### A B C Efficient Construction of Coupled Simulations



Person Weeks instead of Person Months

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**Process- & Quality Management**

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