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Sirius

Your custom modeling environment made easy, at last!

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EclipseCon 2013



THALES

Sirius helps create specific multi-view workbenches based on diagram, table and tree modeling editors

- ➔ Provides the **specification tools** to describe, test, and distribute graphical modeling workbenches on top of the Eclipse platform, **with little technical knowledge**
- ➔ Provides the associated **runtime**

**Currently in the Project Proposal Phase
for the Eclipse Modeling Project**

Thales previous
experiences with
UML Profiling



Need for DSLs



Separation
workbench /
business concerns

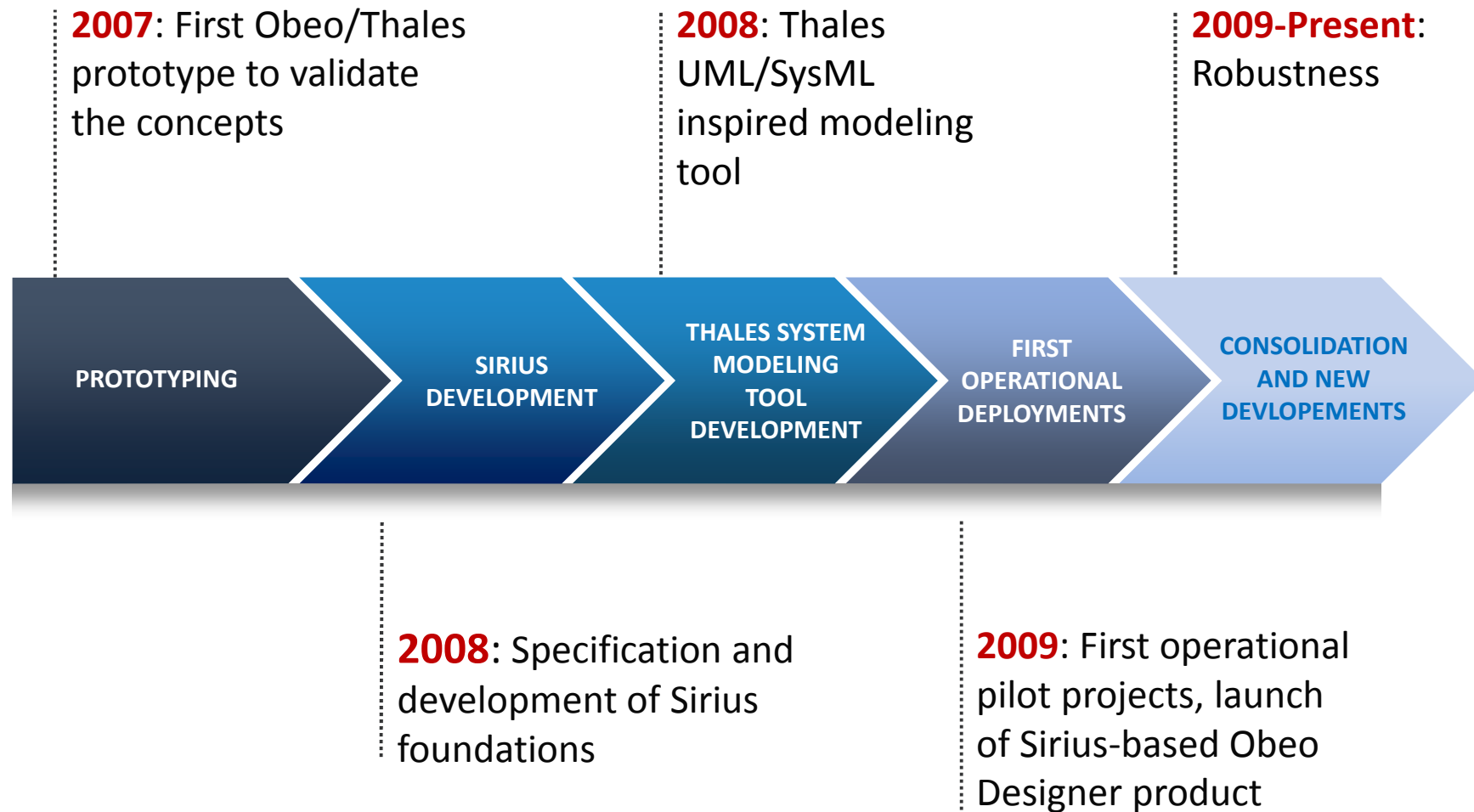
- Poor adoption by system engineers
- Metamodels constrained by UML concepts
- Representations constrained by existing UML diagrams



- More freedom in representations
- Heavier and more technical (GMF) developments
- Originally 2 or 3 foreseen modeling tools

- Generic infrastructure for model management and representations
- Focus on business added-value
- Capitalization



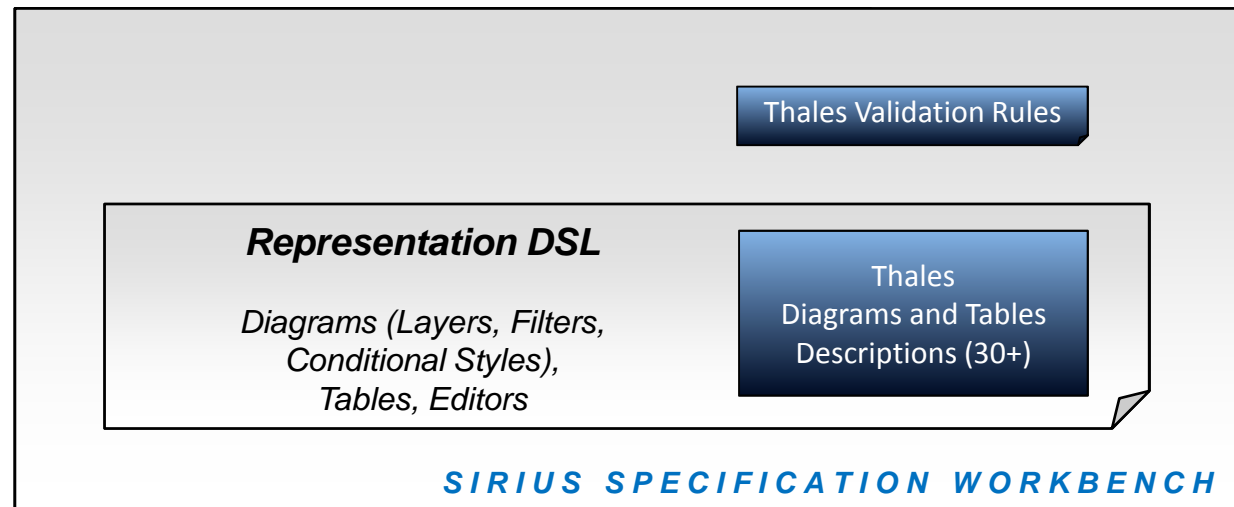
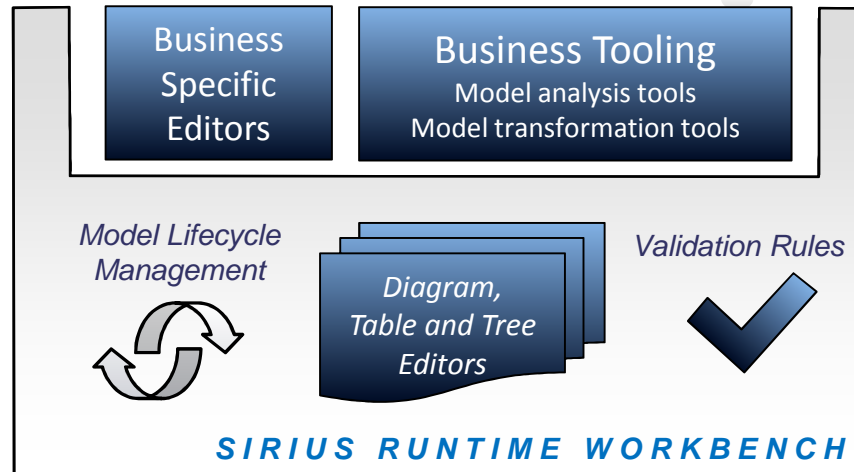
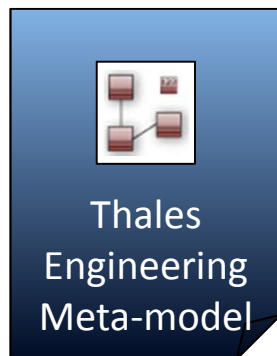


Creation of a Modeling Workbench with Sirius

Thales
Engineering
Modeling Workbench



Thales Engineering
Methodology



Thales Operational Deployment Figures



**Avionic
Systems for
Airbus, Boeing,
Dassault**

France



Security

France



Space

*France,
Italy*



Transportation

*Canada,
Germany*



**Ground and Air
Radars**

*France,
The Netherlands*



**Air Traffic
Control**

*Australia,
France*

Modeling workbenches

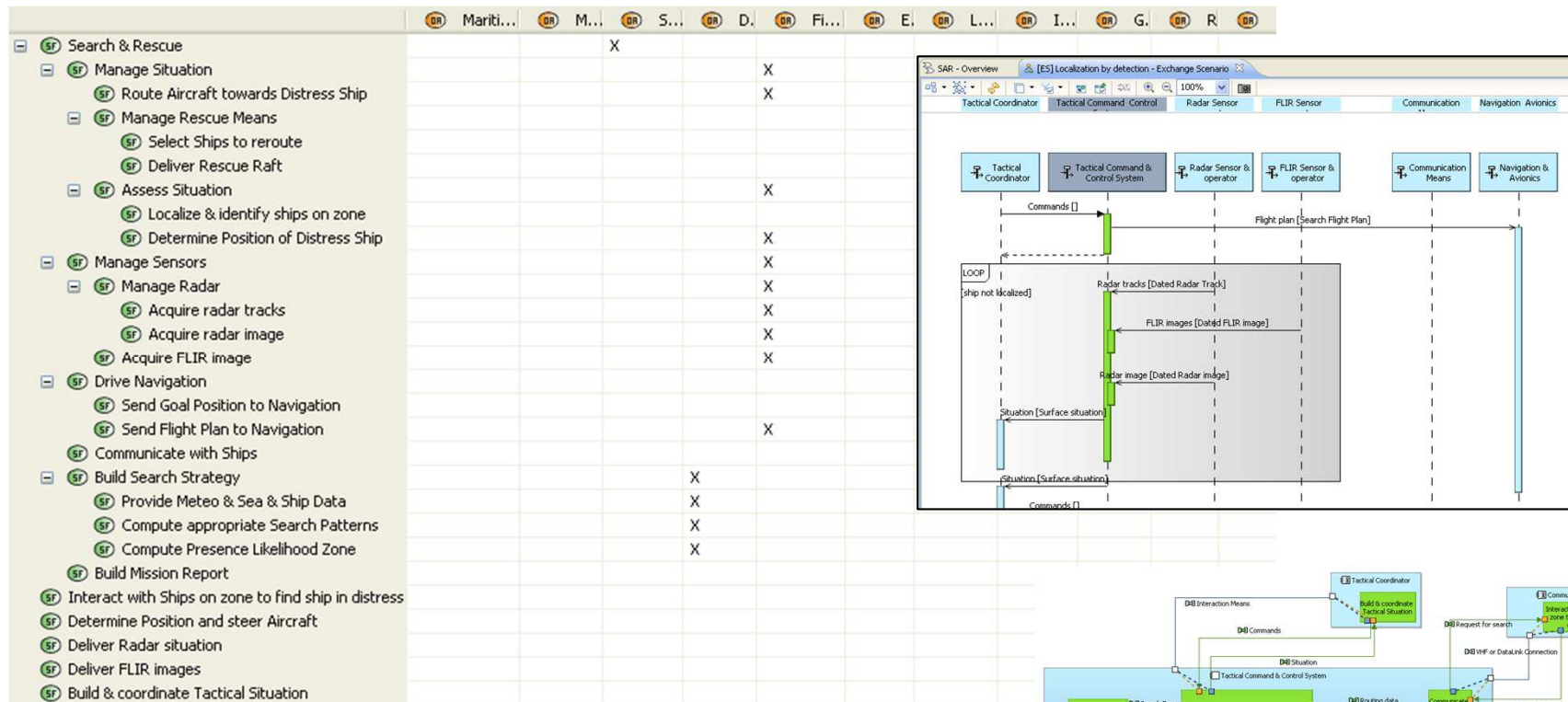
Operational or pilot projects

#####

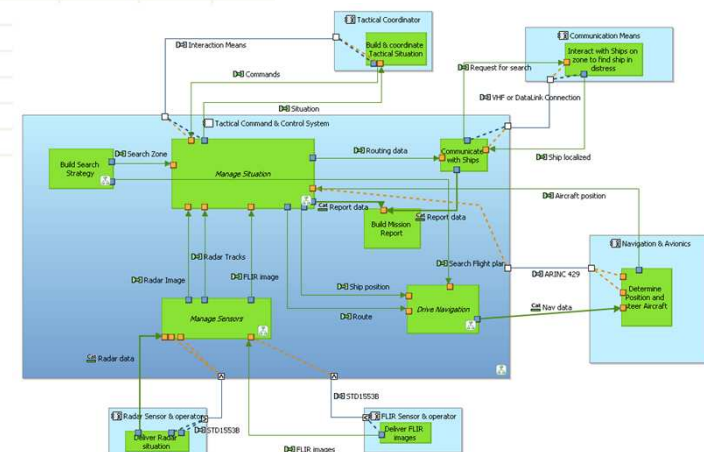
Daily users

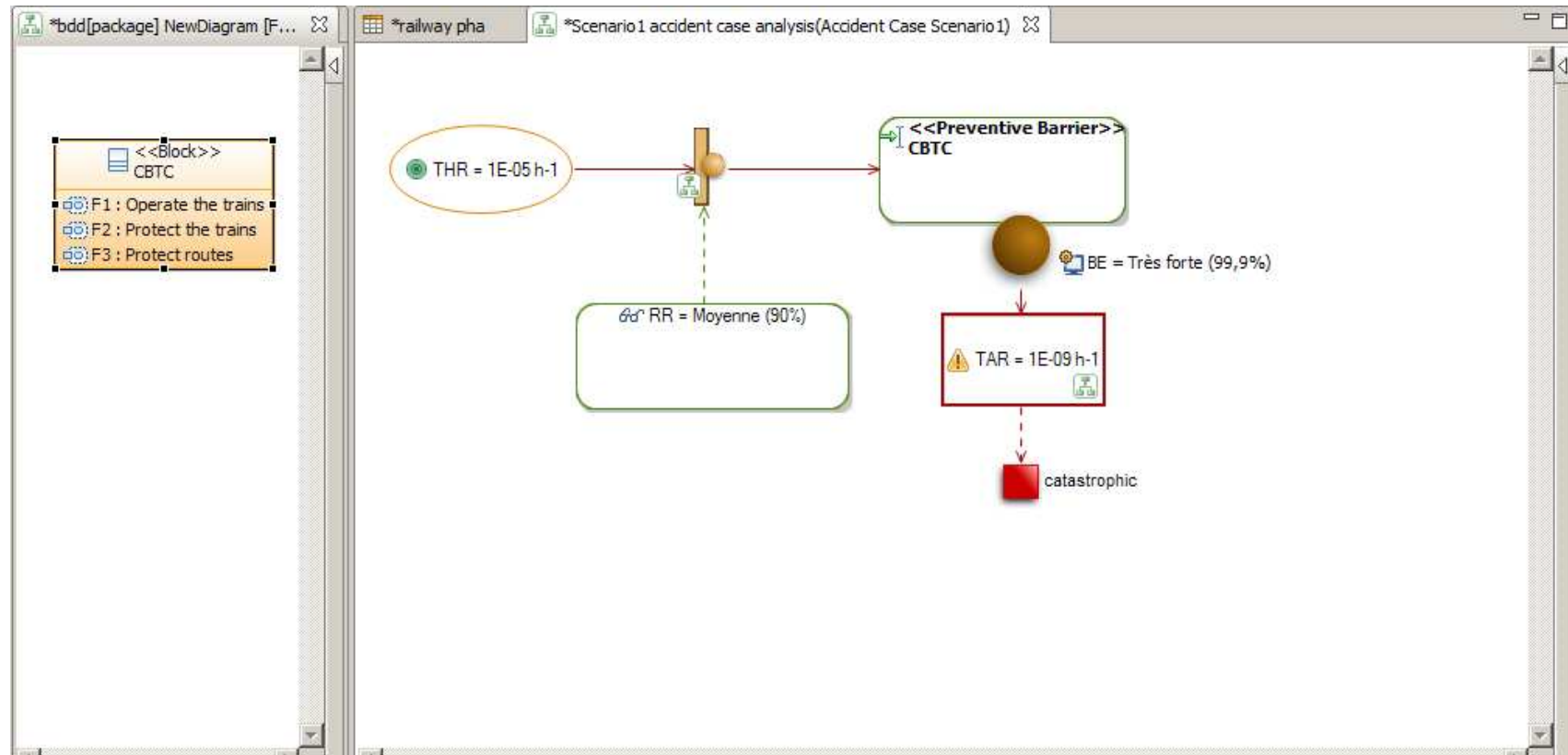
400 Diagrams in some models

1000+ Nodes in biggest diagrams

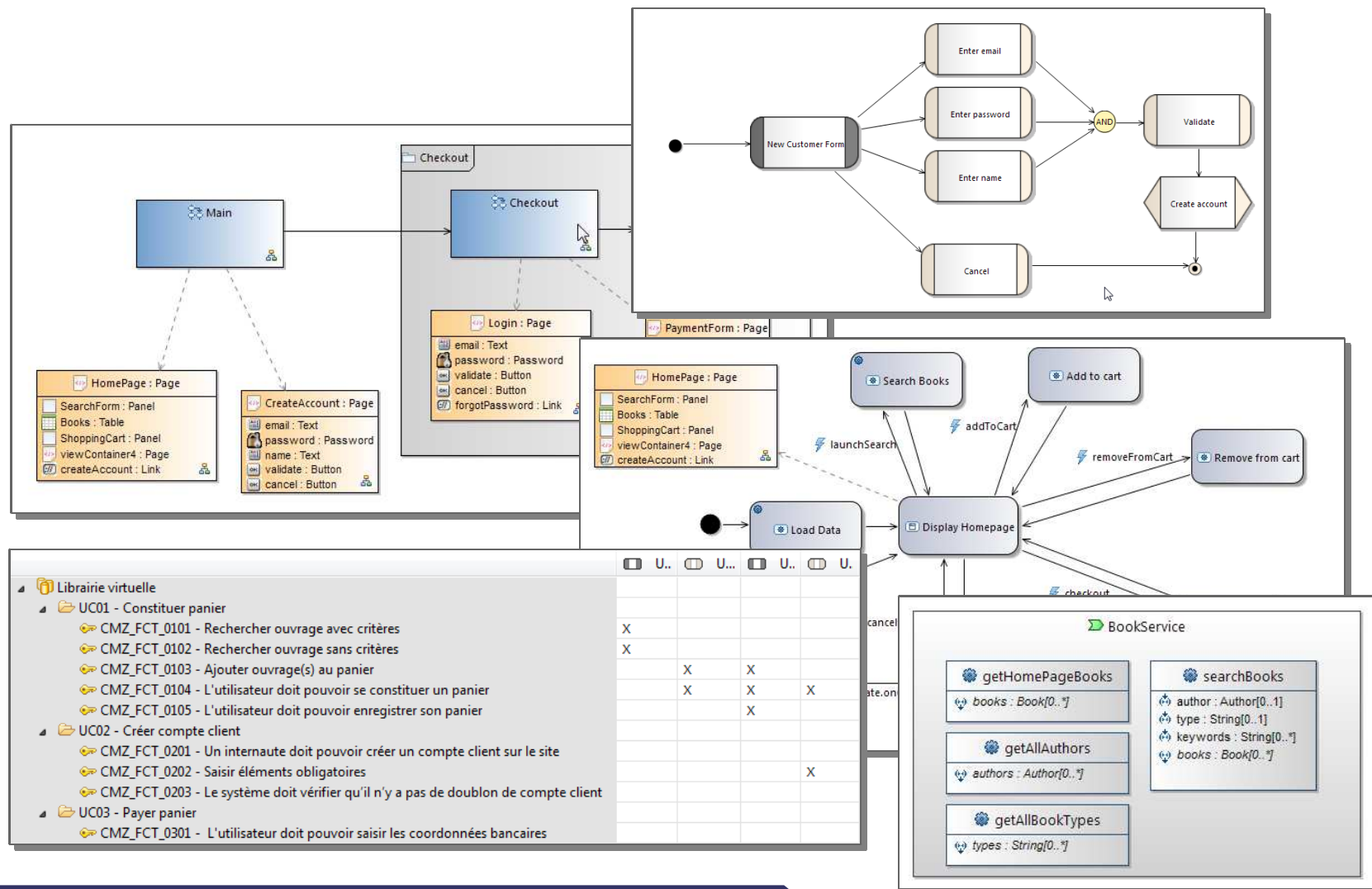


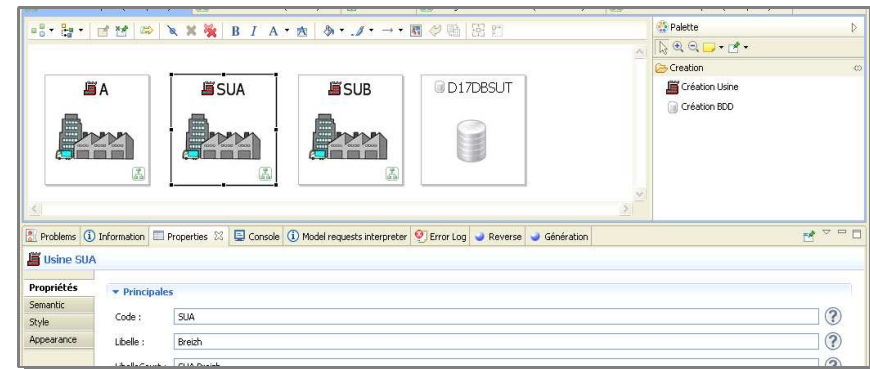
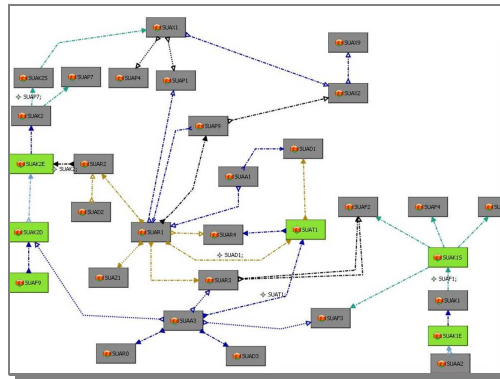
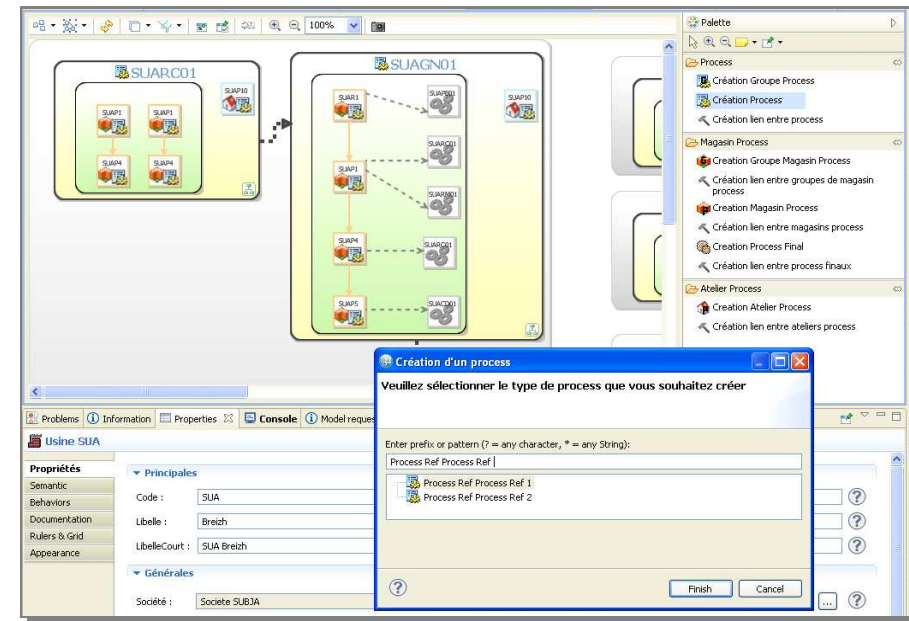
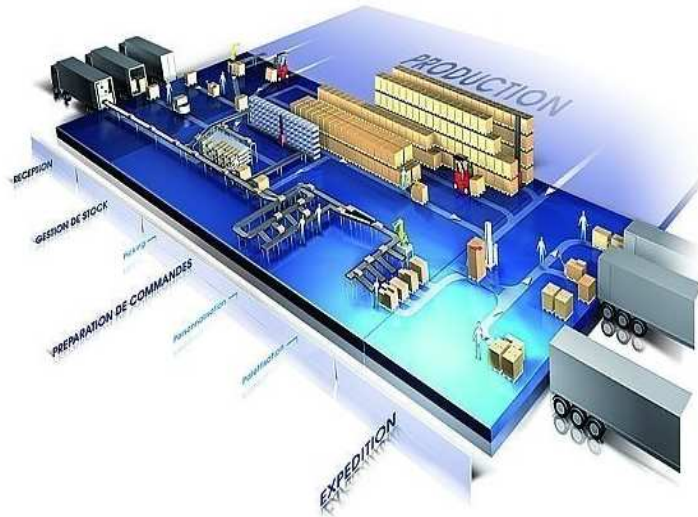
Live demonstration





Alstom Safety Analysis





4 years of concrete operational feedback

- ➡ The rapid adoption has created **strong expectations**
- ➡ Continuous intensification of development efforts to **sustain the deployment growth**
- ➡ Significant focus on **automated validation** and **regression tests**

Open Source is the next step

Foundations

- Transactions
- Fragmentation in SCM
- UML2-like sequence diagrams

**Ergonomics**

- Automated layouts
- Stability of layouts
- Tweaks of GMF behaviors

**Performance**

- Successive performance improvement plans
- Focused diagrams

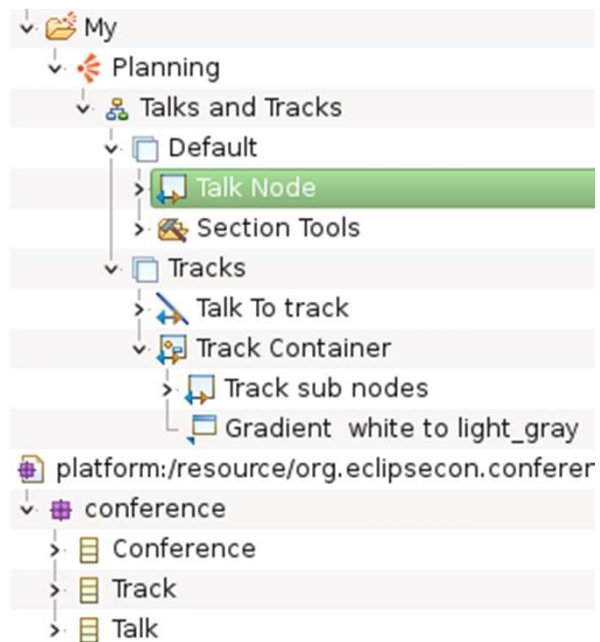


FIRST OPERATIONAL DEPLOYMENTS

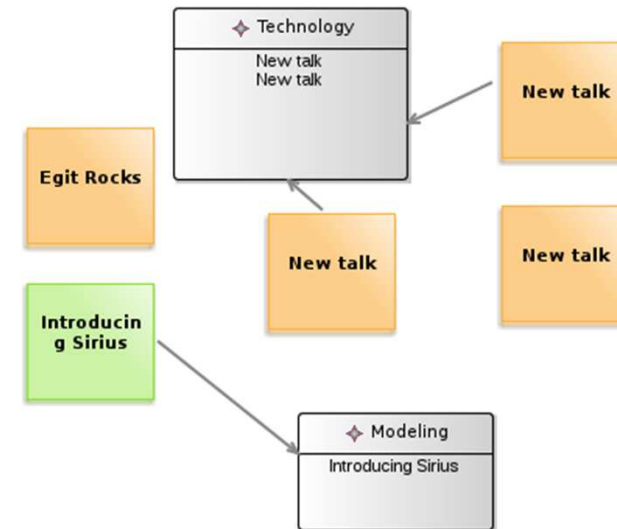
CONSOLIDATION AND NEW DEVELOPEMENTS



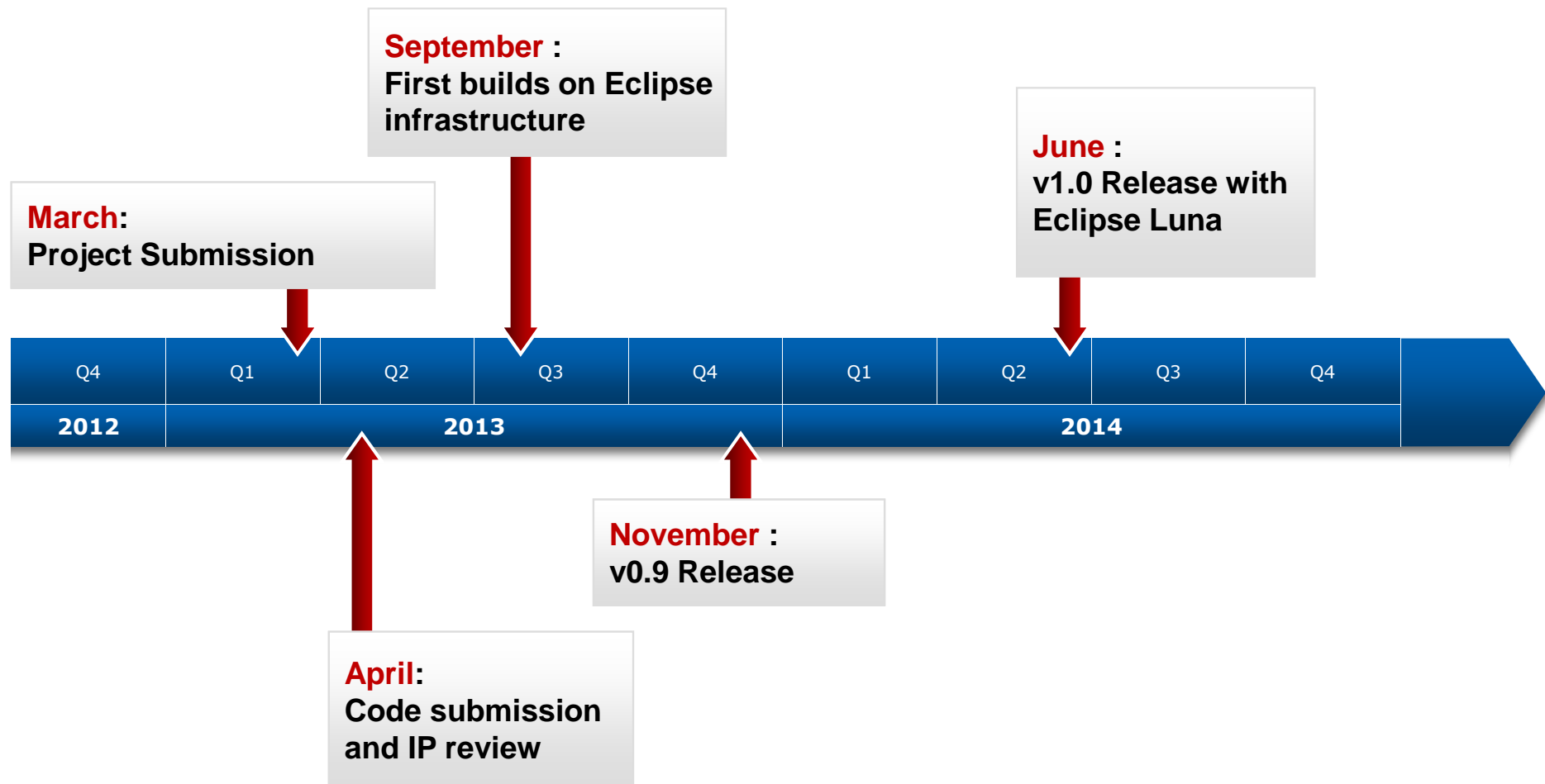
Workbench Configuration



Designer Usage



Live Demonstration



➡ <http://www.eclipse.org/proposals/modeling.sirius>

➡ Other interested parties?

➡ Feel free to contact us!!

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Modeling Symposium in a few hours

Talk on Thursday: Collaborative modeling applied to avionic design: Give wings to your team!