

# OSLC @ Airbus Group

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Head of Model-based Systems and Software Engineering  
Airbus Group Innovations

# Airbus Group at a Glance

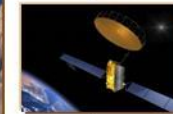
 **AIRBUS**



 **AIRBUS**  
HELICOPTERS



 **AIRBUS**  
DEFENCE & SPACE



## Airbus Group Employees by country\*



\* As of December, 2013

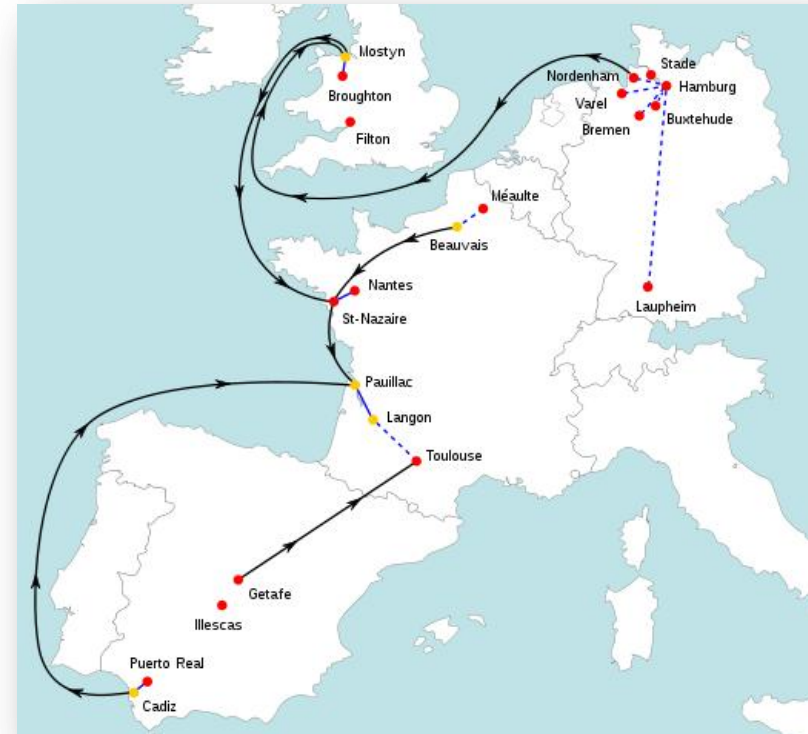
 <b>AIRBUS</b>	 <b>AIRBUS</b> HELICOPTERS	 <b>AIRBUS</b> DEFENCE & SPACE
<p>Globally leading aircraft manufacturer</p> <ul style="list-style-type: none"> <li>Since 2000, Airbus commercial deliveries grew by 60%</li> <li>Backlog more than doubled in one decade (now equaling 8 years of production)</li> </ul>	<p>Leading helicopter manufacturer</p> <ul style="list-style-type: none"> <li>Accounts for 1/3 of the global helicopter fleet</li> <li>Delivered about 4,000 helicopters throughout the past decade</li> </ul>	<p>Europe's No.1 defence and space company</p> <ul style="list-style-type: none"> <li>Worldwide, it ranks second for space and is among the top ten defence companies</li> <li>Revenues of approximately €14 billion per year</li> </ul>

# Our Key Challenges for Engineering Lifecycle Management



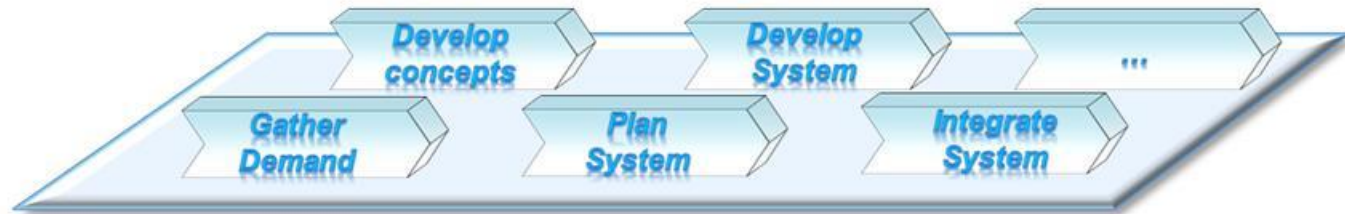
- Complex Products
- Safety-critical Systems (Certification)

- Geographically distributed engineering teams
- Complex IT infrastructure





# Today's situation at Industrial Companies



- *Complex ways of working*
- *Slow to adapt*

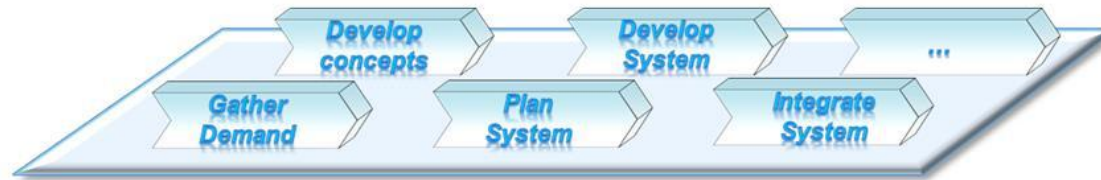


- *Fragmented IT*
- *High manual effort to handle data*

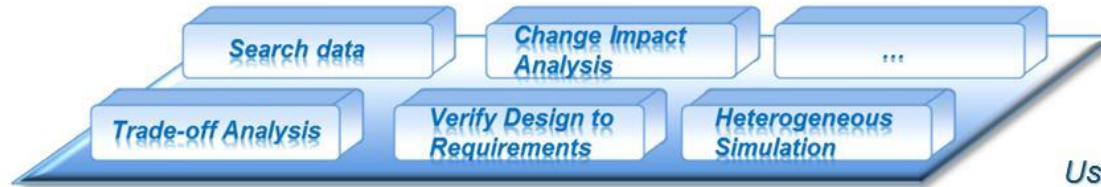
**Tool Layer**



# Our Vision

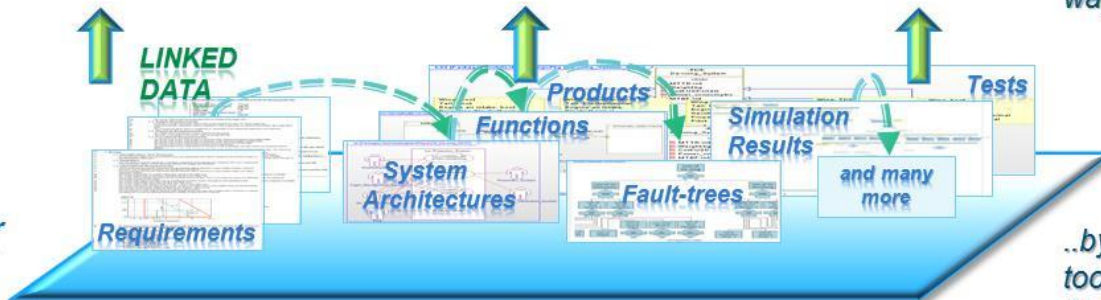


**New: Engineering Methods**



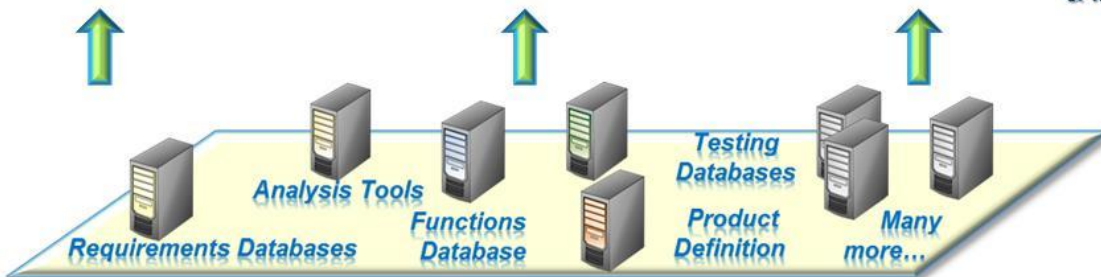
*Users get better ways of working*

**New: Platform Layer**



*..by connecting tools to expose & link data*

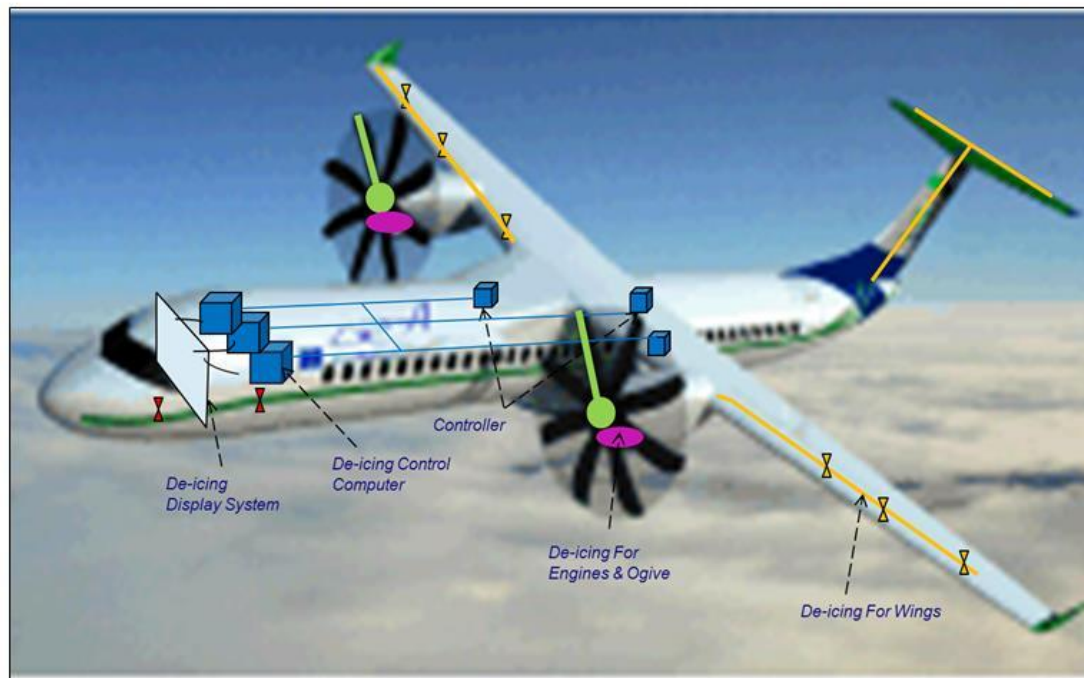
**Tool Layer**



# CRYSTAL Research Project: Public Aerospace Use Case: De-Icing System

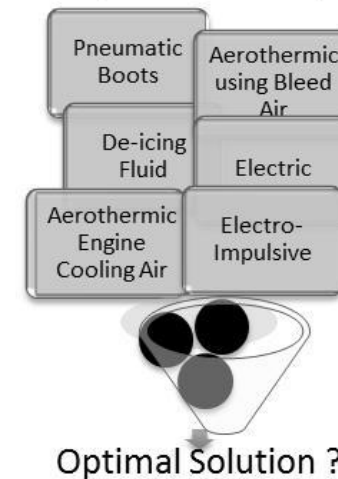
## Use Case Objective:

- Definition of De-icing System for Regional Turboprop Aircraft, with:
  - Minimal Cost, Weight, Power Consumption
  - Fulfilling safety constraints
  - Fulfilling functional needs (i.e. keep Aircraft components free-of ice )



## Engineering Challenges:

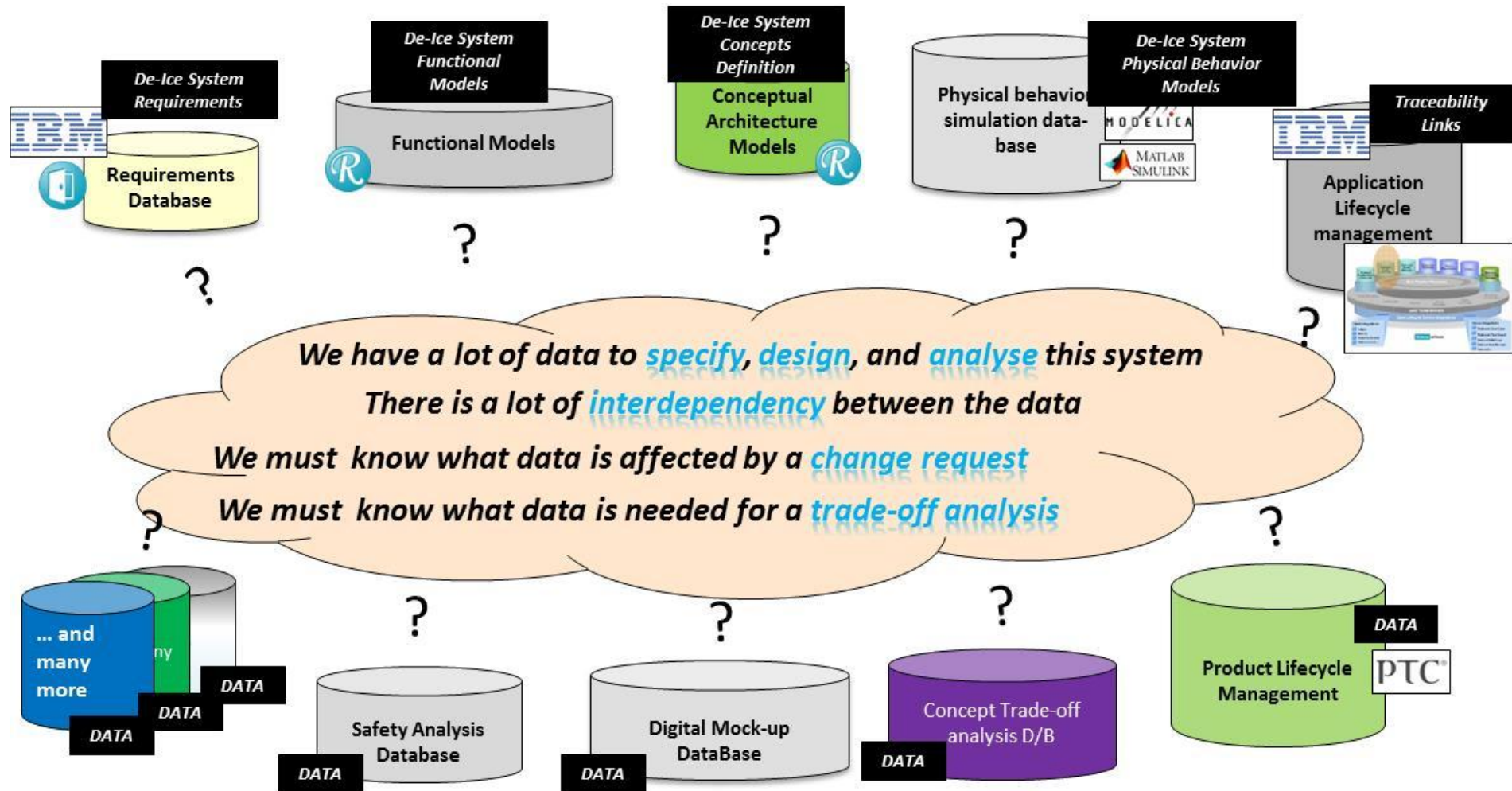
- Many change requests; how to assess impact?
- Different alternative concepts for De-icing:



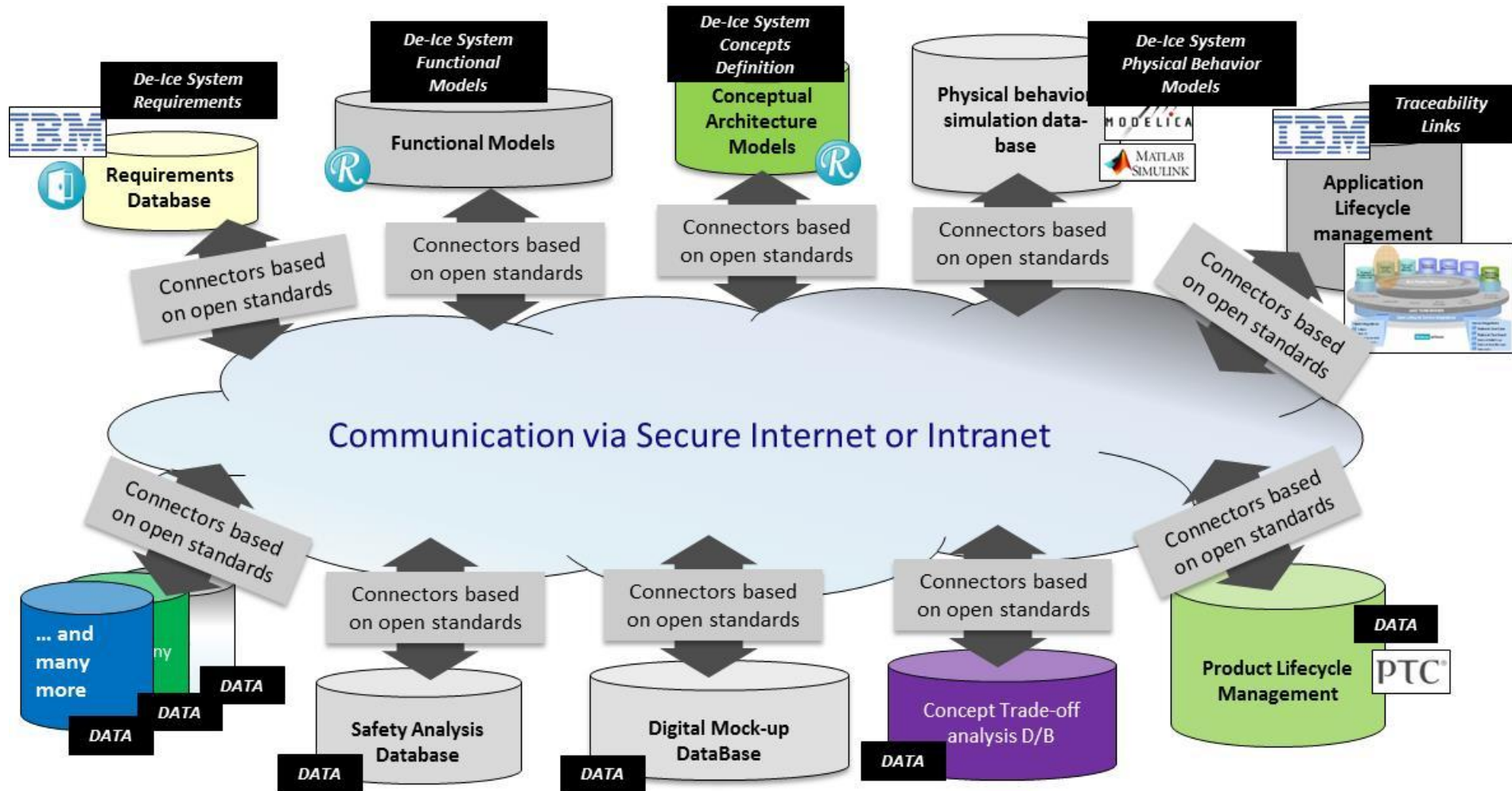
Check our Video on Youtube: Change Impact Analysis based on Linked Data  
<https://www.youtube.com/watch?v=zeFiGSwMsUc>



# Public Aerospace Use Case: Interoperability Challenge

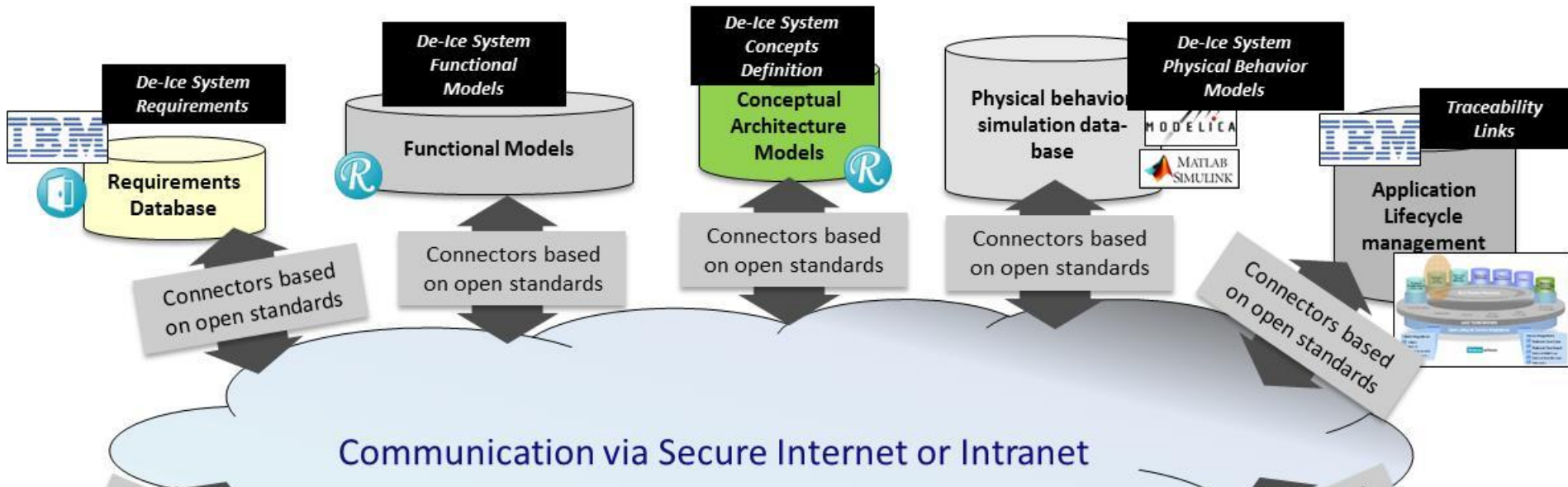


# Public Aerospace Use Case: Our Implementation



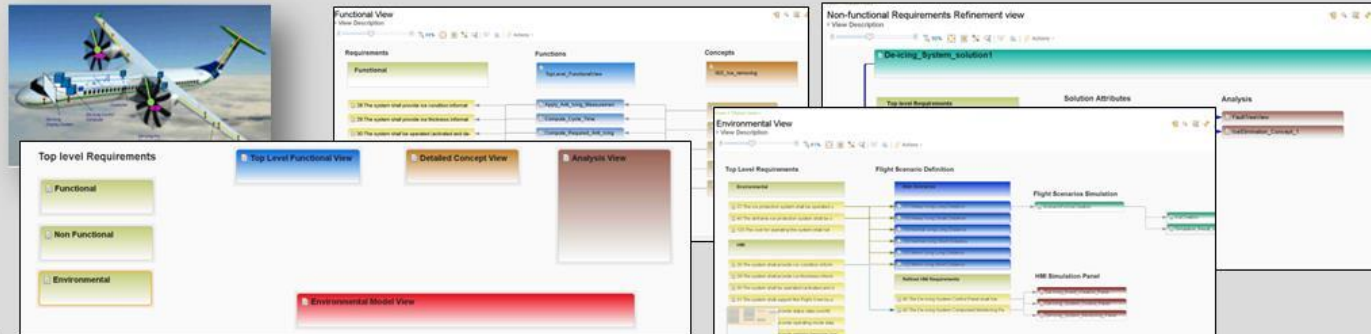


# Public Aerospace Use Case: Our Implementation



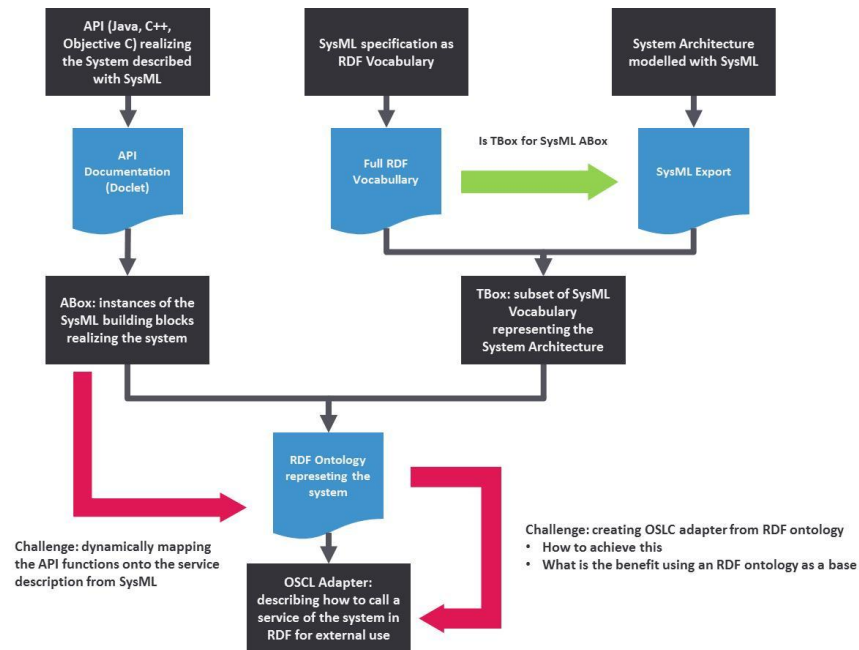
## Current CRYSTAL Demonstrator (based on IBM RELM)

- Show Traceability Links between Artefacts of De-Icing System
- Assess change request impact on De-Icing System



# OSLC @ AirbusGroup – what's next

- ❑ Implementation of Configuration Management for Public Aerospace Use Case
- ❑ ALM / PLM integration & Case Studies
- ❑ OSLC Adapter SDK / Generic Adapters



# CONTACTS

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CRYSTAL Project  
<http://www.crystal-artemis.eu/>

Check our Video on Youtube: Change Impact Analysis based on Linked Data  
<https://www.youtube.com/watch?v=zeFiGSwMsUc>