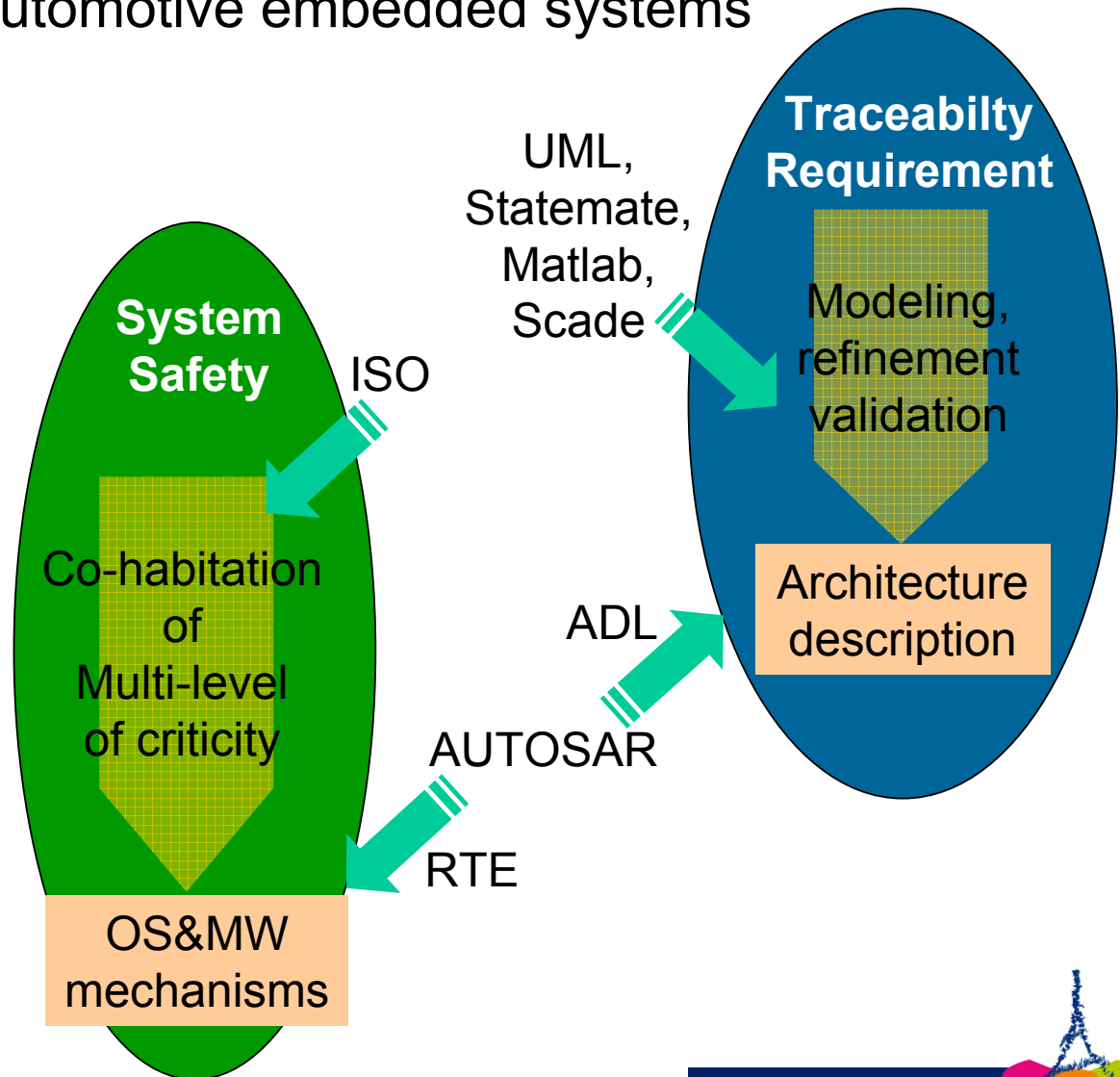


## « Beyond Autosar » panel

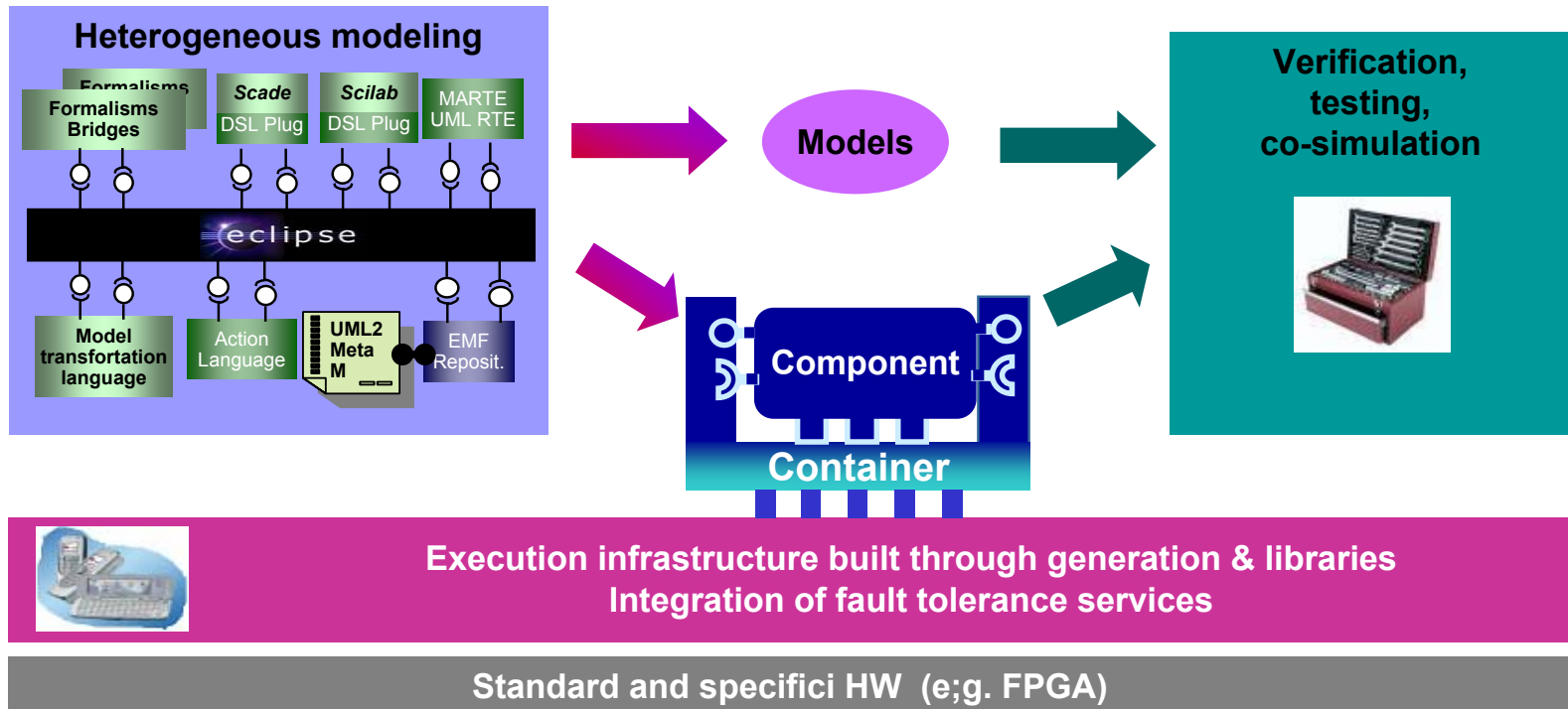
→ Elements current large related projects

→ Challenges

➔ Research program related to automotive embedded systems



# SYSTEM@TIC *Usine Logicielle (Software factory)*



**Model Driven Engineering for:**  
***Heterogeneity & interoperability management***





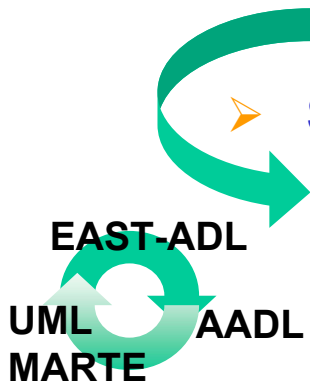
# Some challenges in development of safe, modular, reusable embedded components and systems

## ➤ Link with requirements at model level until implementation

- ✓ Heterogeneity of modeling formalisms & tools
  - Semantics equivalence
  - Explicit model of calculus, programming, execution
  - Model of platforms, relation with co-design
  - Variability of QoS & behaviour → product lines

## ➤ Standardization actions... should become multi-domains...

- ✓ Component meta-model (at the various levels)
- ✓ Timing, safety, etc.
- ✓ Infrastructure architecture and production mechanisms



## ➤ Impact of safety:

- ✓ Continuous and vertical view of safety vs local actions
- ✓ Coexistence of several levels of safety on same ECU, infrastructure, system...

