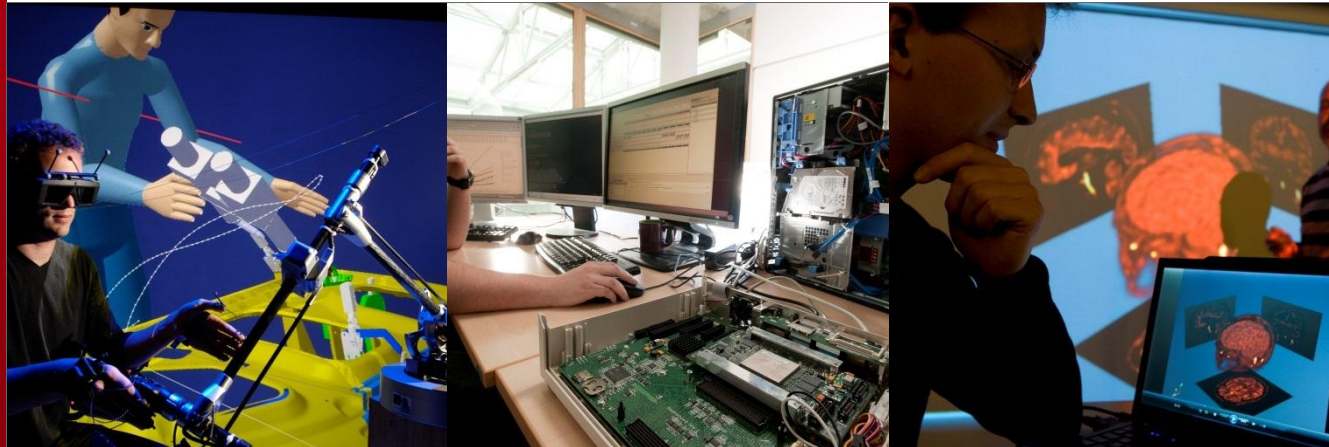


FROM RESEARCH TO INDUSTRY

cea tech

CREATE A DSML : THE SYSML1.4 USE CASE

list



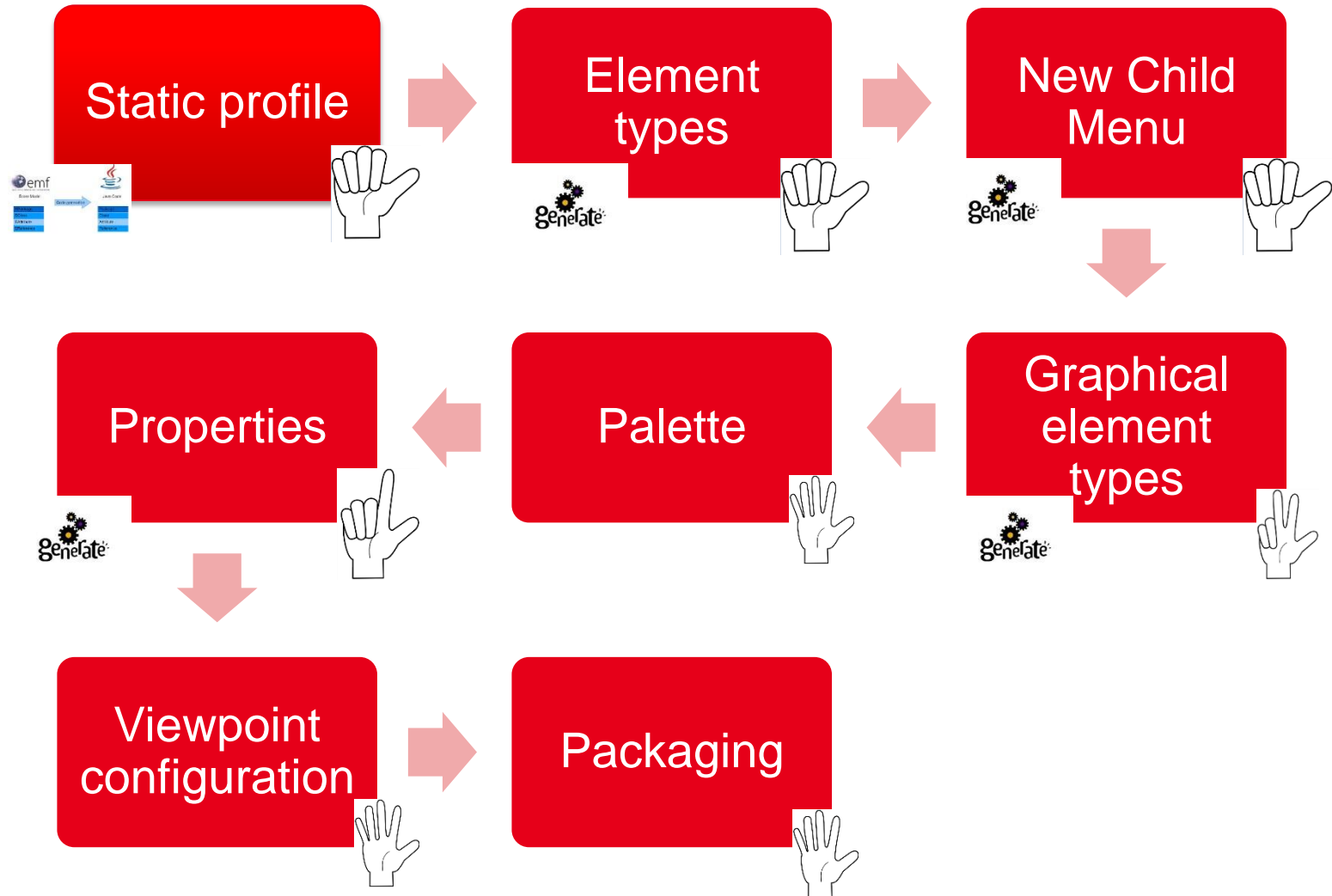
- **Context**
- **From the profile to the tooling**
- **From the tooling to a DSML tool**
- **Conclusion**

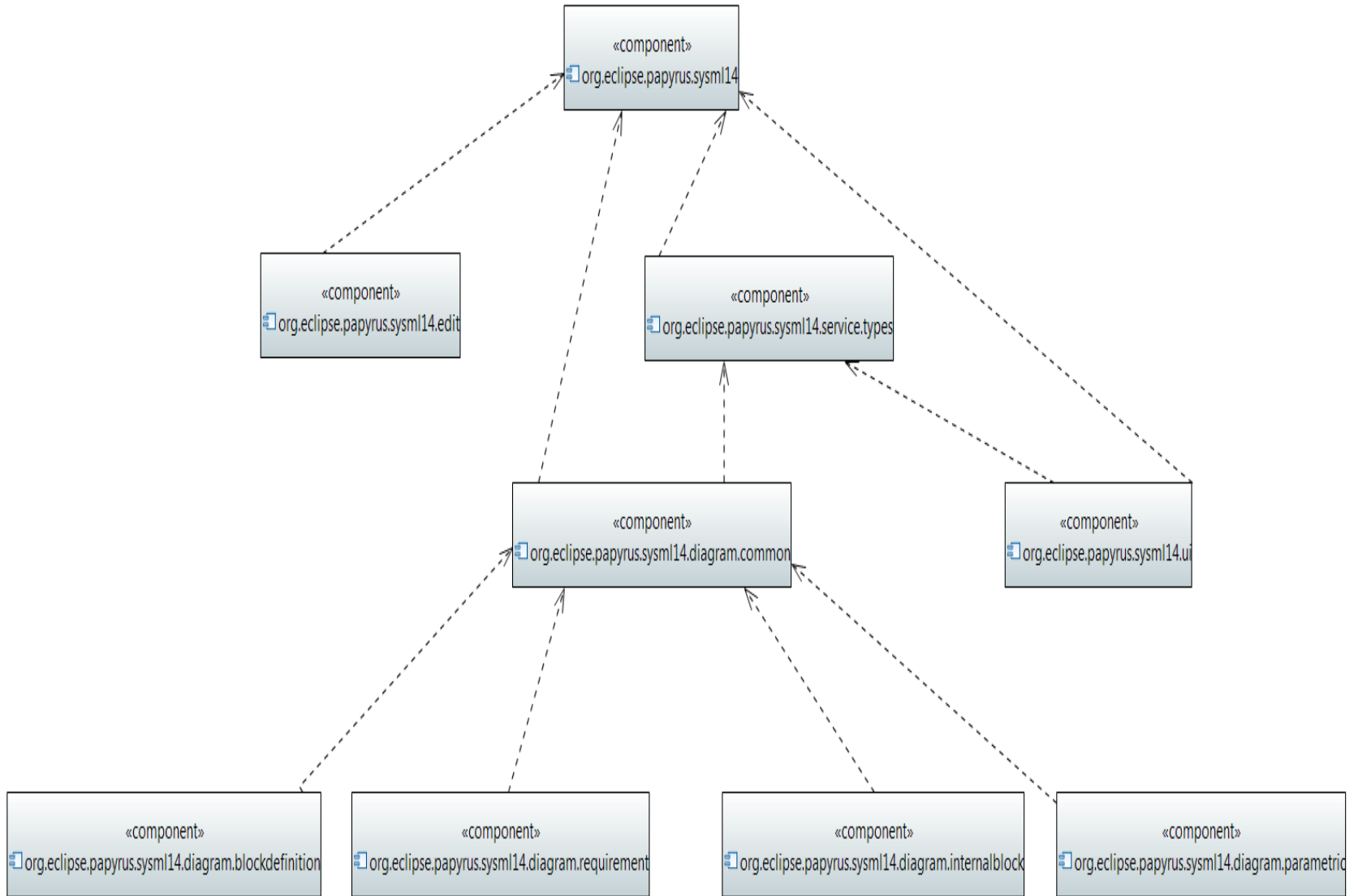
- **New version of an OMG norm [1]**
- **Current status in Papyrus :**
 - Old framework
 - Forked version
 - Version 1.1 of the norm
- **Goal**
 - Latest version of the norm (1.4)
 - New Frameworks
 - Palette
 - Element types
 - ViewPoint
 - Expansion

1 : <http://www.omg.org/spec/SysML/1.4/Beta/>

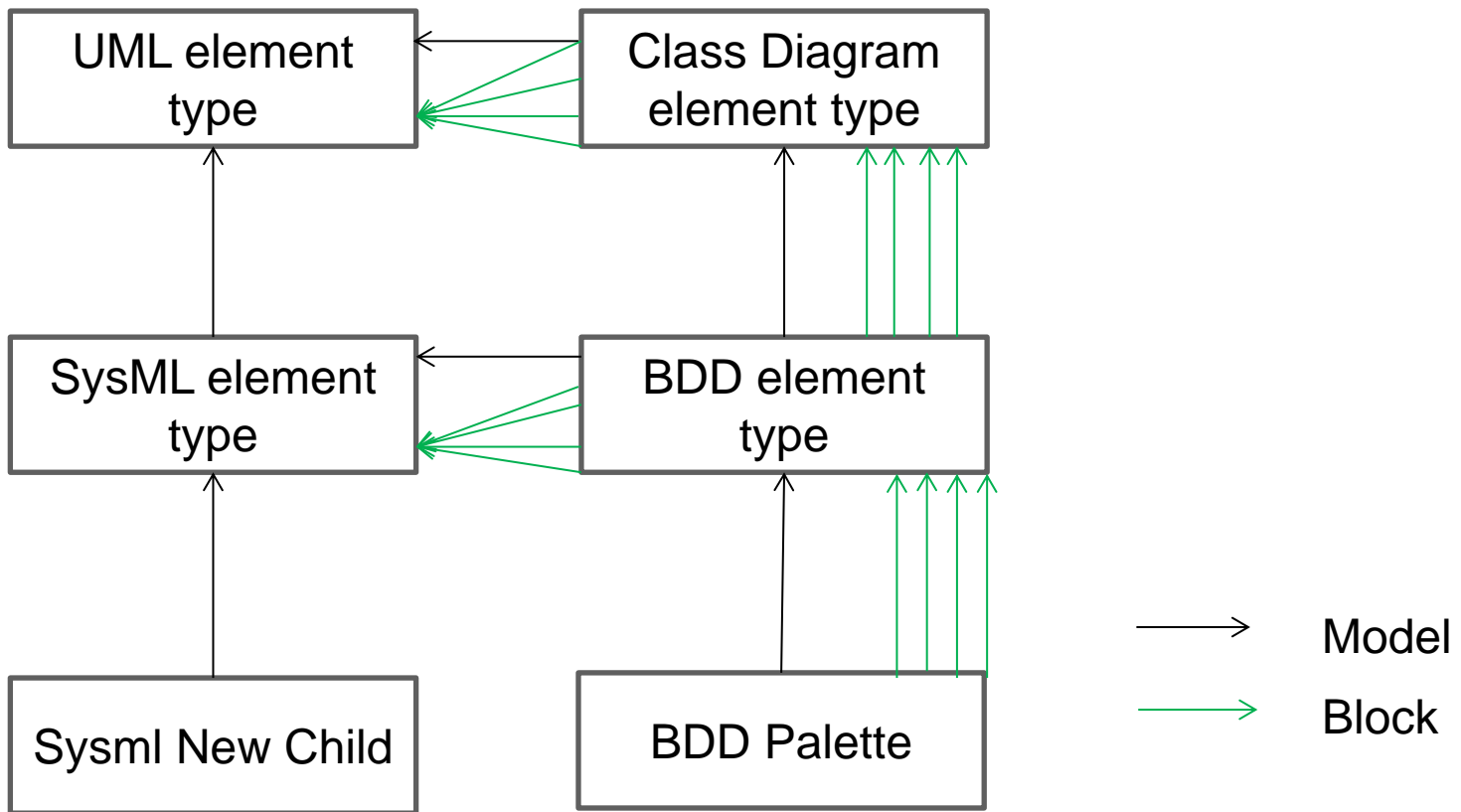
BOTTOM UP







MODEL ARCHITECTURE

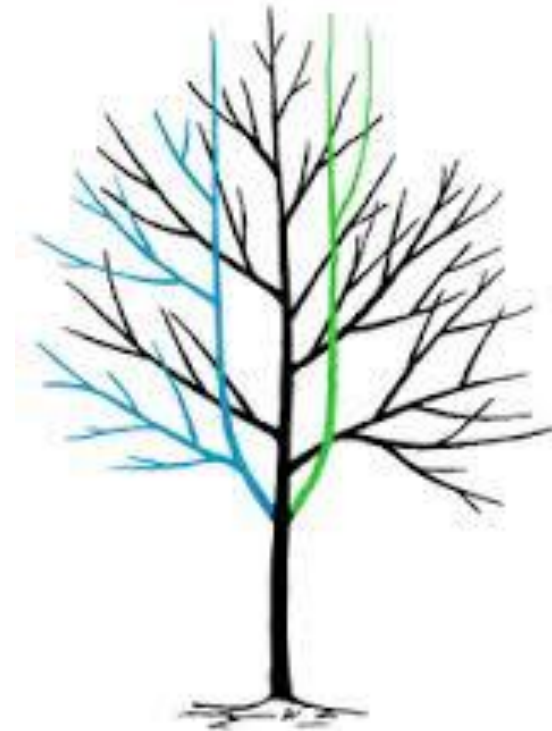


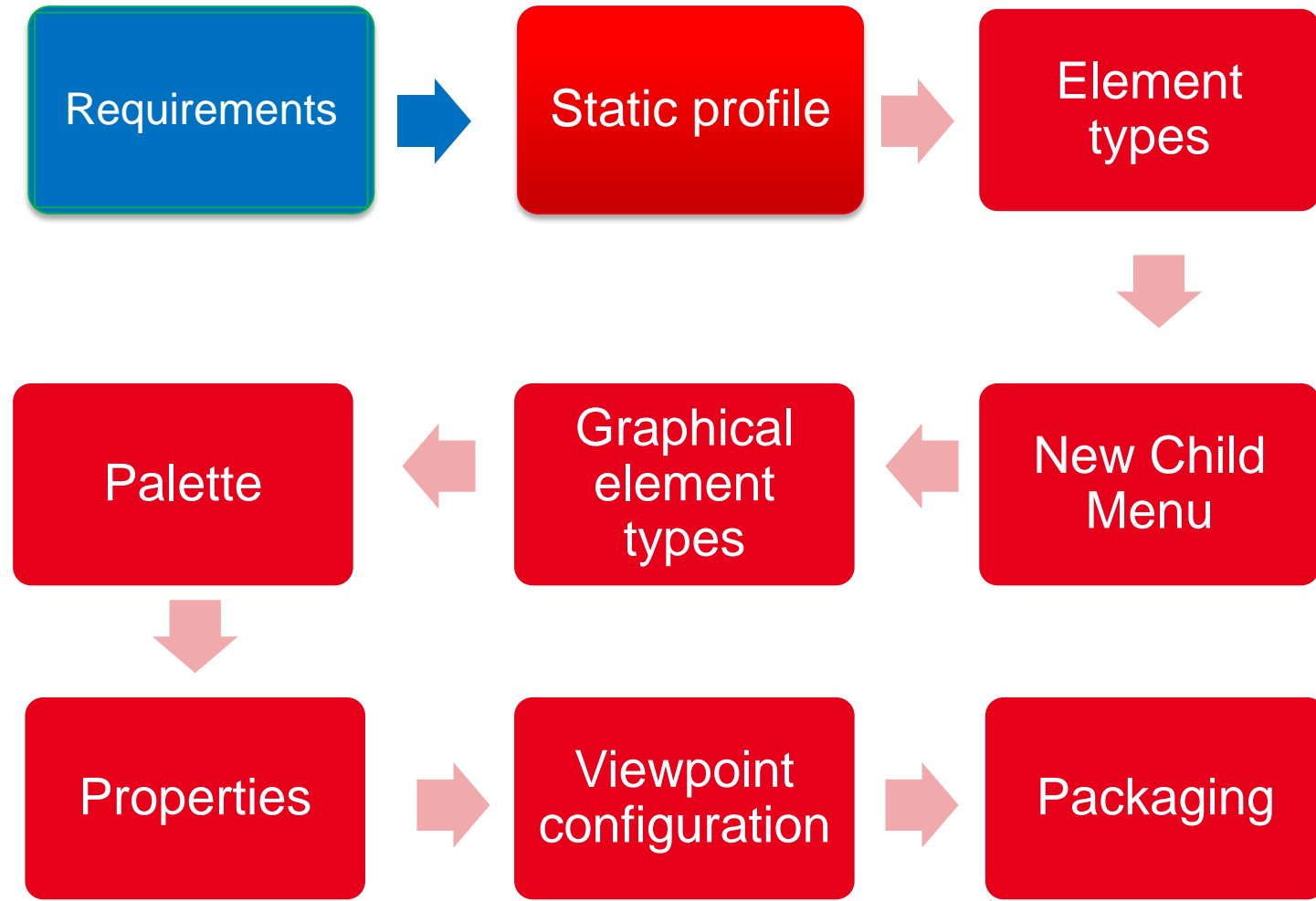
FEEDBACKS

- **Process :**
 - Missing a step by step document
 - Too many clicks
 - Missing an official/published generator
- **Model too complex :**
 - The « diagram element type model »
 - The palette
- **It Works !!!**

TOP DOWN : REFINE THE TOOLING

- Read the specification
- Prune/Improve the Tooling

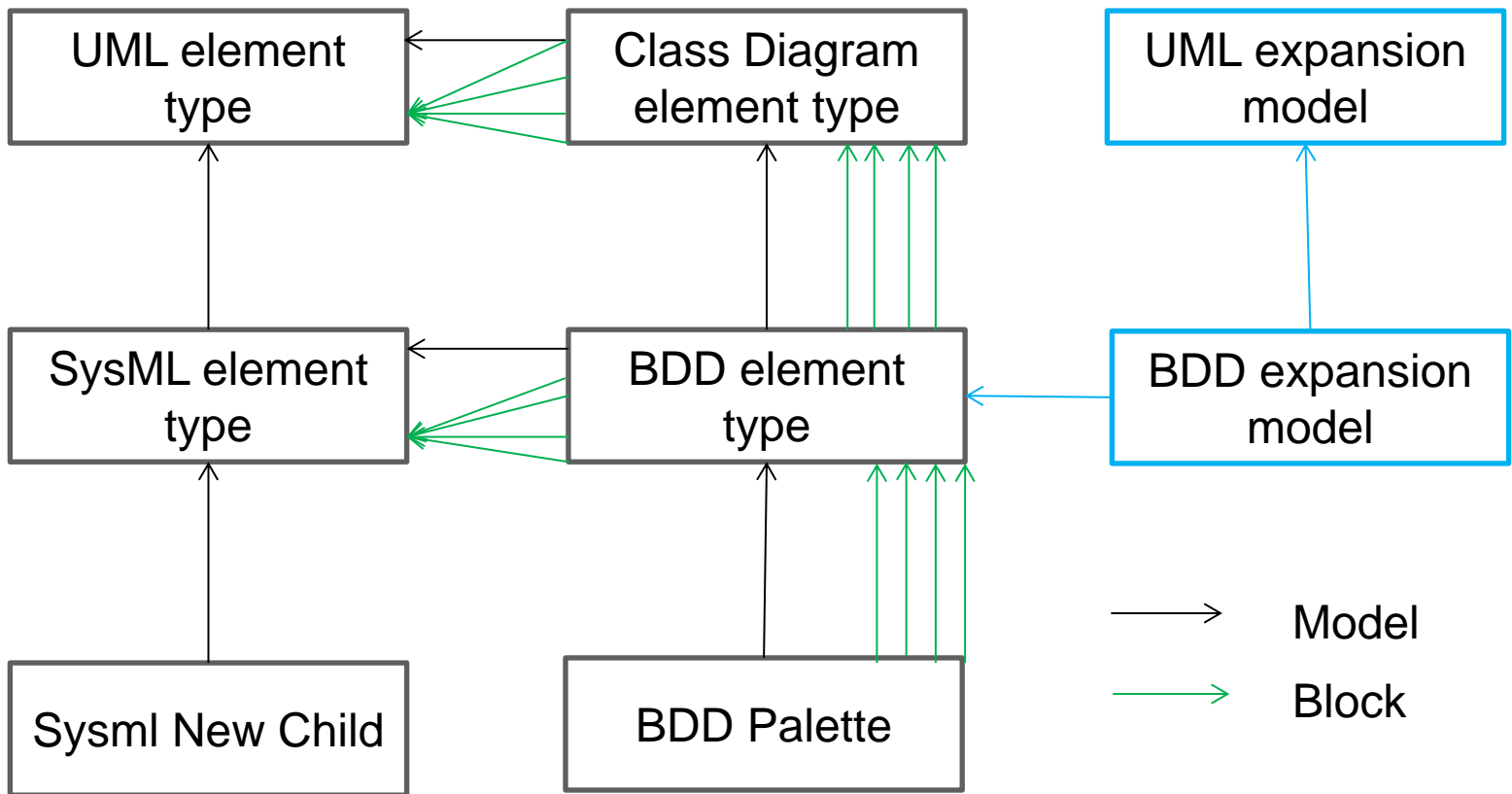




- **The static profile**
 - Generated code in src-gen
 - Override the factory
 - Derived feature
- **Element type**
 - Remove unused element
 - Add some elements
 - Init values
 - Create sub elements

- **Style**
 - Create a css for each diagram
 - Display stereotype compartment
 - Hide compartment
- **Property view**
 - Add a constraint in the framework
 - Merge from 1.1
- **Palette**
 - Add UML elements
 - Add new SysML elements
- **Expansion**
 - Add compartment
 - Use new figure
 - Add Port

MODEL ARCHITECTURE WITH EXPANSION FRAMEWORK



- platform:/resource/org.eclipse.papyrus.sysml14.diagram.requirement/resources/configuration/RequirementDiagram.configuration
 - Papyrus Configuration (<http://www.eclipse.org/uml2/5.0.0/UML>)
 - Default Papyrus Viewpoint
 - Default Papyrus Viewpoint :: SysML 1.4 Requirement
 - Root: Package[*] => allow
 - Owner: Package[*] => allow
 - [#] add: # => allow
 - Palette: clazz.group.* => deny
 - View Category SysML14

| Property | Value |
|-------------------|---|
| Affected By | |
| Categories | View Category SysML14 |
| Custom Palette | platform:/plugin/org.eclipse.papyrus.sysml14.diagram.requirement/resources/palette/requirementDiagram.paletteconfiguratio |
| Custom Style | platform:/plugin/org.eclipse.papyrus.sysml14.diagram.requirement/resources/style/requirementdiagram.css |
| Governs | |
| Icon | platform:/plugin/org.eclipse.papyrus.sysml.diagram.requirement/icons/obj16/Diagram_Requirement.gif |
| Implementation ID | PapyrusUMLClassDiagram |
| Name | SysML 1.4 Requirement |
| Parent | |
| Profiles | { http://www.eclipse.org/papyrus/1.4/SysML } |

DEMO

FEEDBACKS

- **Tests**
 - Manual
 - Comparison/Testing/Benchmark framework
- **Validation**
 - Validation tool for each meta-model
 - Check missing element type
- **Examples**
 - Demo for common use case [1]
 - Official profiled-DSML example
- **Tooling**
 - Unified

1 : <http://jqueryui.com/demos/>