geensys

Global Embedded Electronics & Networked SYstem Solutions

Eclipse Automotive Working Group

Activities and Requirements @ Geensys

- **Geensys**
  - **G**lobal **E**mbedded **E**lectronics & **N**etworked **SY**stem **S**olutions
  - Embedded system engineering and IP
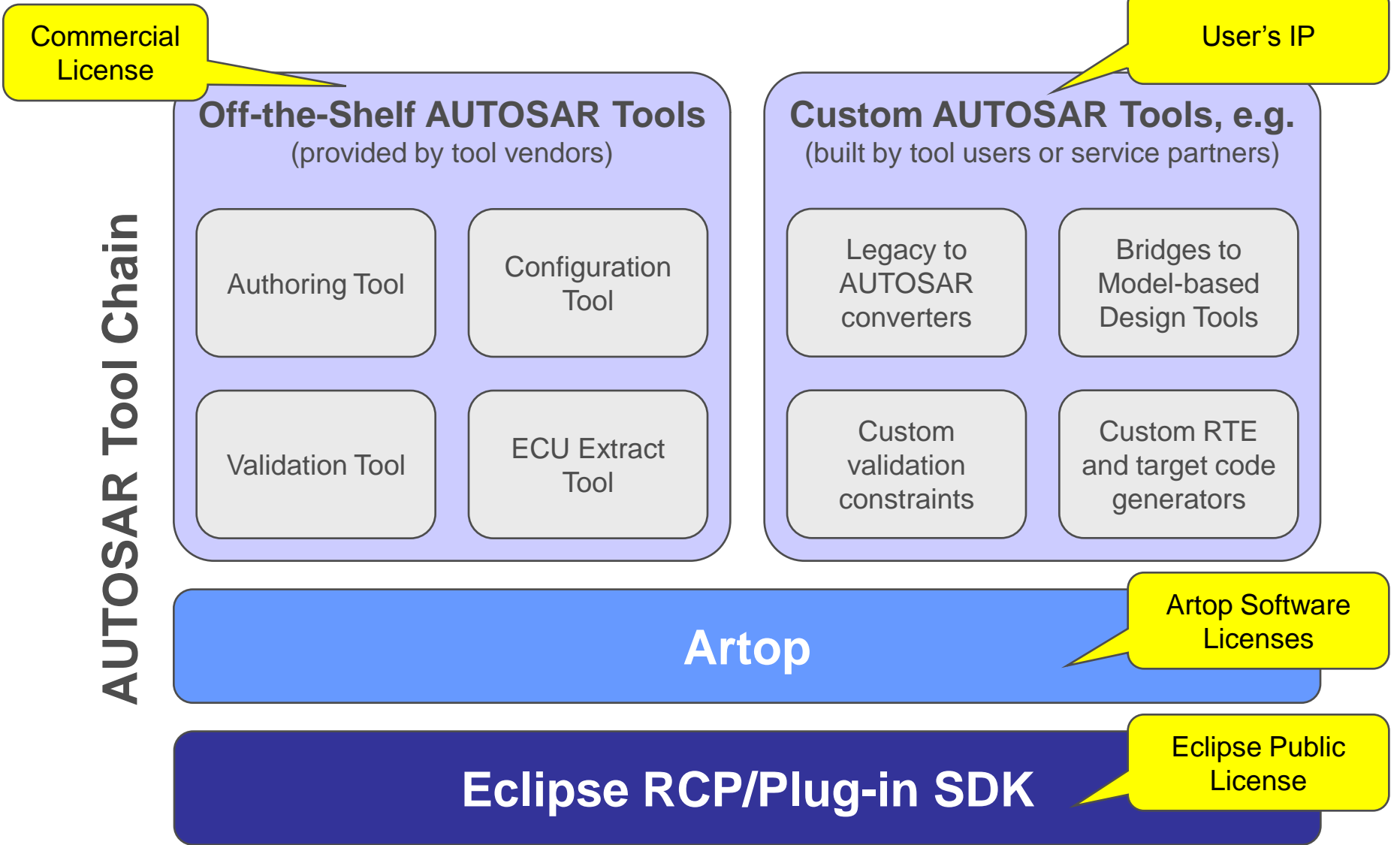 - Embedded system engineering tools
  - Consulting services
- **Gerhard Steininger**
  - Lead of Geensys' AUTOSAR business
- **Dr. Stephan Eberle**
  - Lead of Geensys' AUTOSAR tool platform development
  - Committer on Eclipse EMF project (Teneo component)

- **Why are we here?**
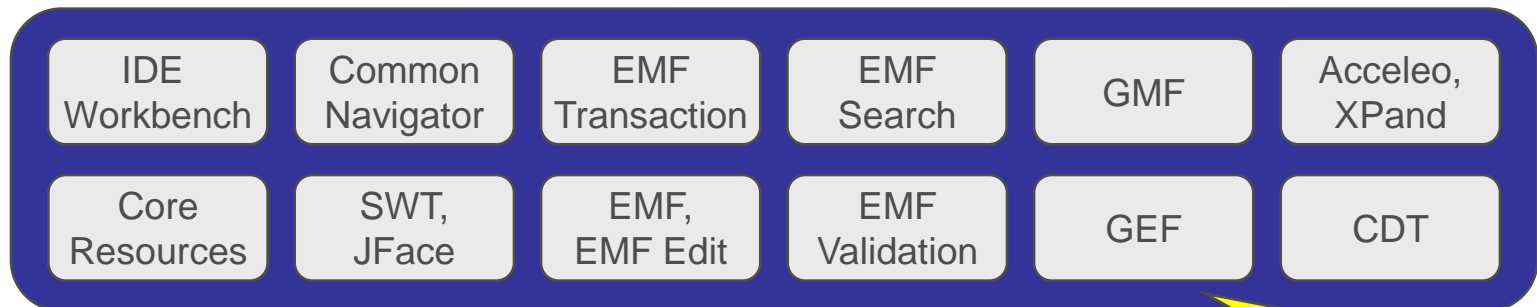- Eclipse comonents required by Artop
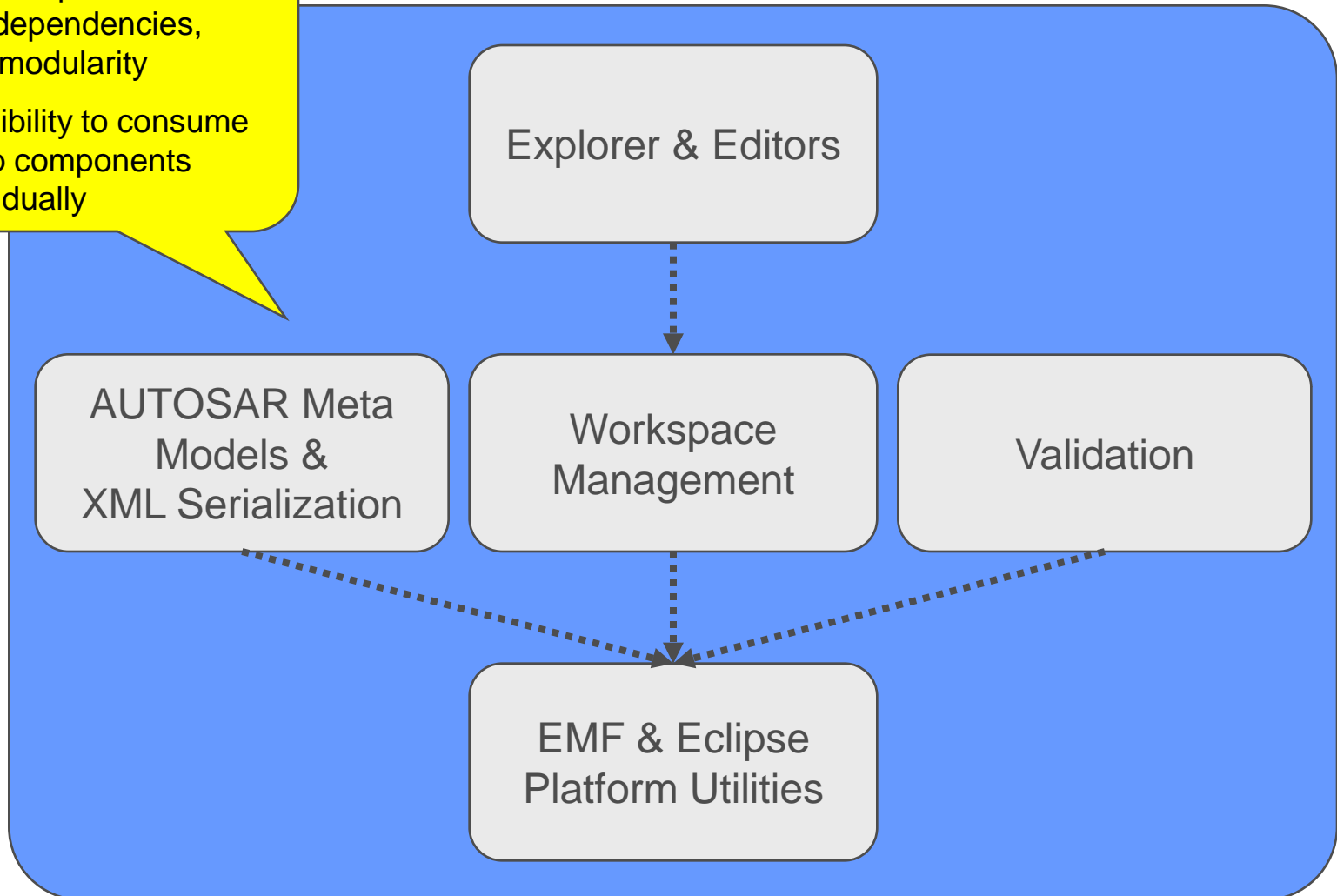- Eclipse components required by EDONA

Artop Architecture

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AUTOSAR Tool Chain

Commercial License

User's IP

Off-the-Shelf AUTOSAR Tools
(provided by tool vendors)

| Authoring Tool | Configuration Tool |
| Validation Tool | ECU Extract Tool |

Custom AUTOSAR Tools, e.g.
(built by tool users or service partners)

| Legacy to AUTOSAR converters | Bridges to Model-based Design Tools |
| Custom validation constraints | Custom RTE and target code generators |

Artop

Artop Software Licenses

Eclipse RCP/Plug-in SDK

Eclipse Public License

Artop Components

Artop

| AUTOSAR **Meta Models & XML Serialization** | **Workspace management** | **Explorer & Editors**
• Basic form editor
• Basic explorer view
• Properties view integration | Common AUTOSAR facilities
• Search & replace
• Compare & merge
• Target code generation
• Command Line Interface |
| **Validation** | Plug-let & Scripting Environment (PSE) | | |

Eclipse

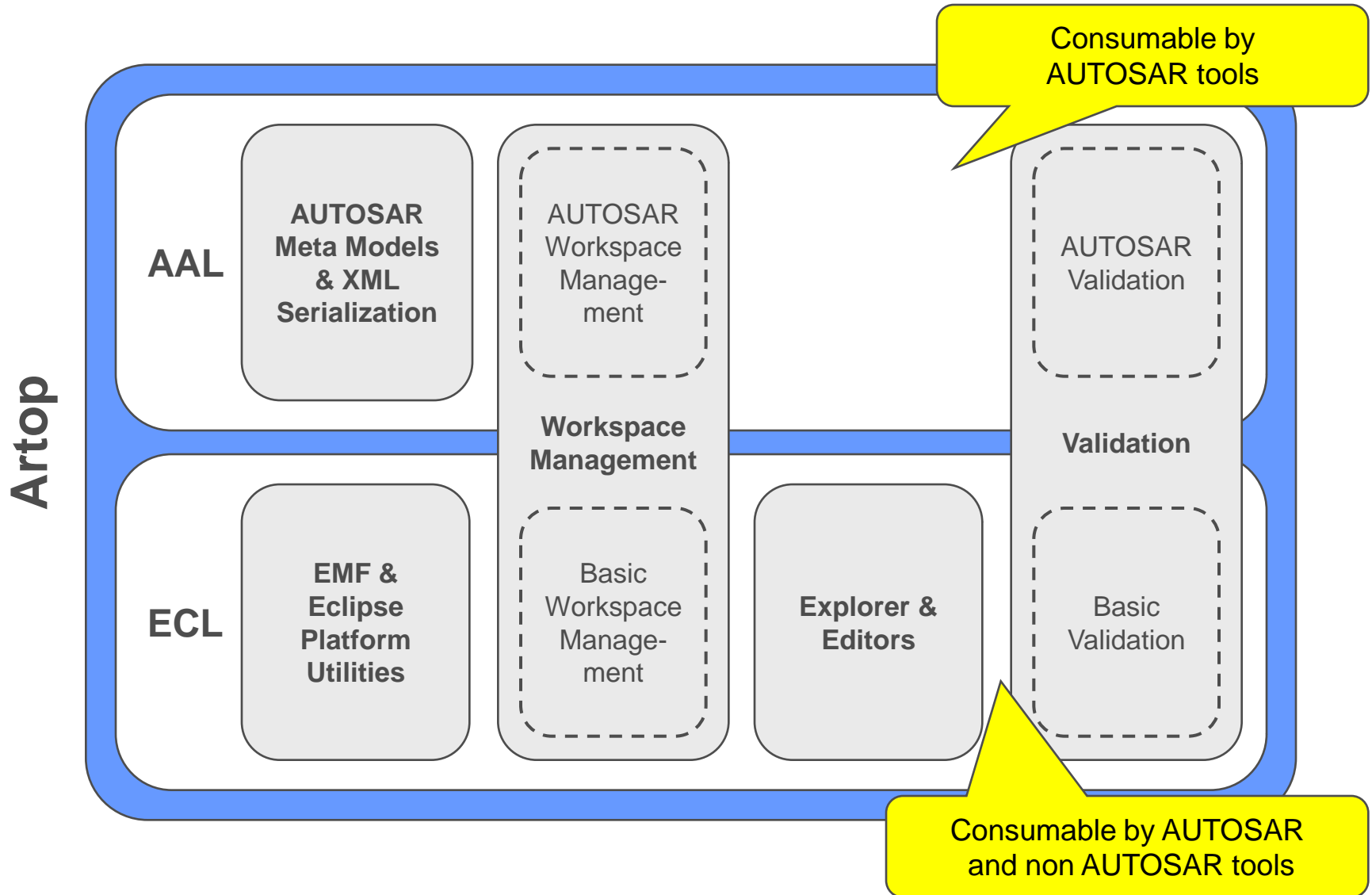| IDE Workbench | Common Navigator | EMF Transaction | EMF Search | GMF | Acceleo, XPand |
| Core Resources | SWT, JFace | EMF, EMF Edit | EMF Validation | GEF | CDT |

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- Low component interdependencies, high modularity

- Possibility to consume Artop components individually

Artop

Explorer & Editors

AUTOSAR Meta Models & XML Serialization

Workspace Management

Validation

EMF & Eclipse Platform Utilities

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Artop

Artop Autosar Layer (AAL)

AUTOSAR specific features

Eclipse Complementary Layer (ECL)

AUTOSAR independent Eclipse Extensions

Eclipse

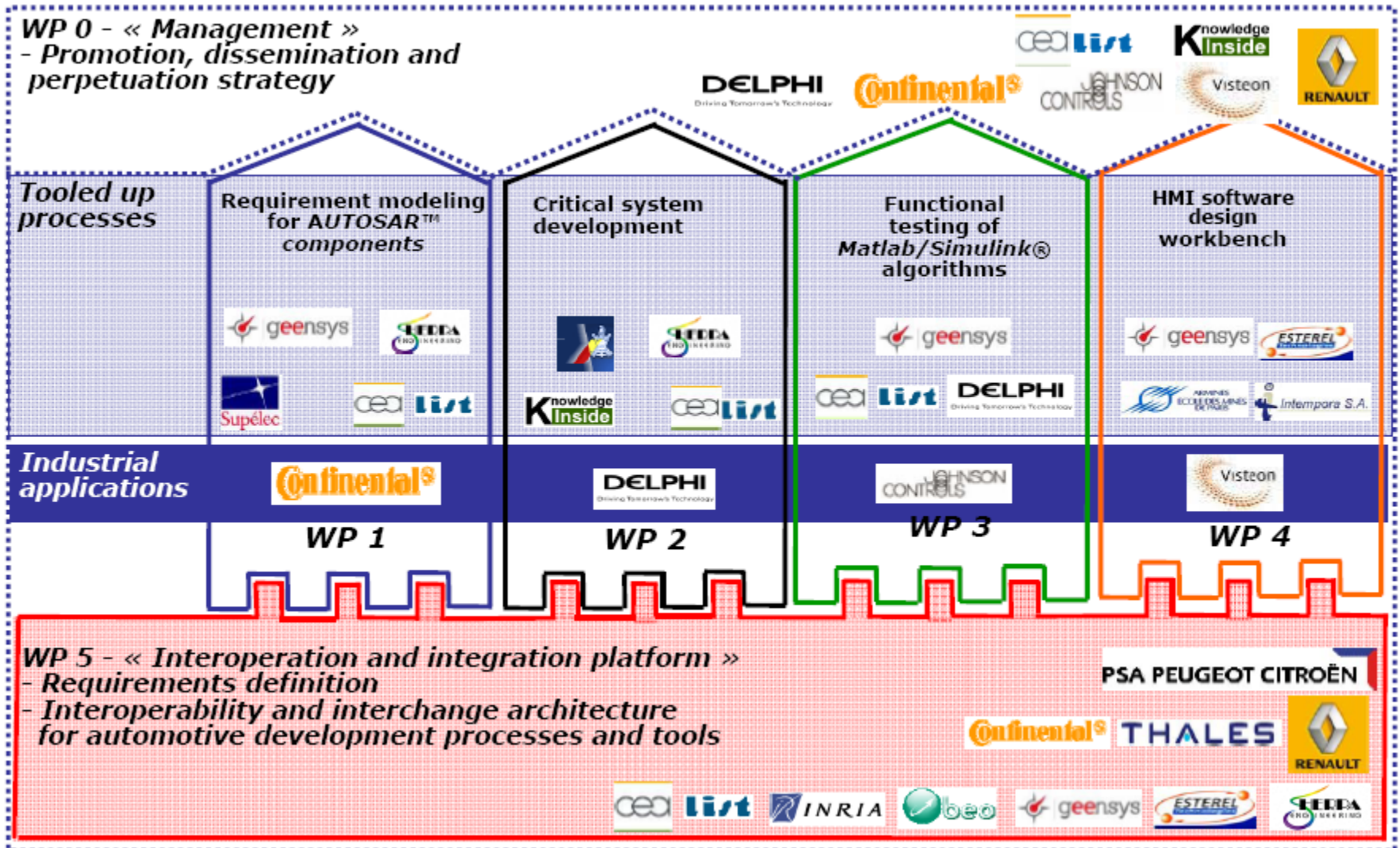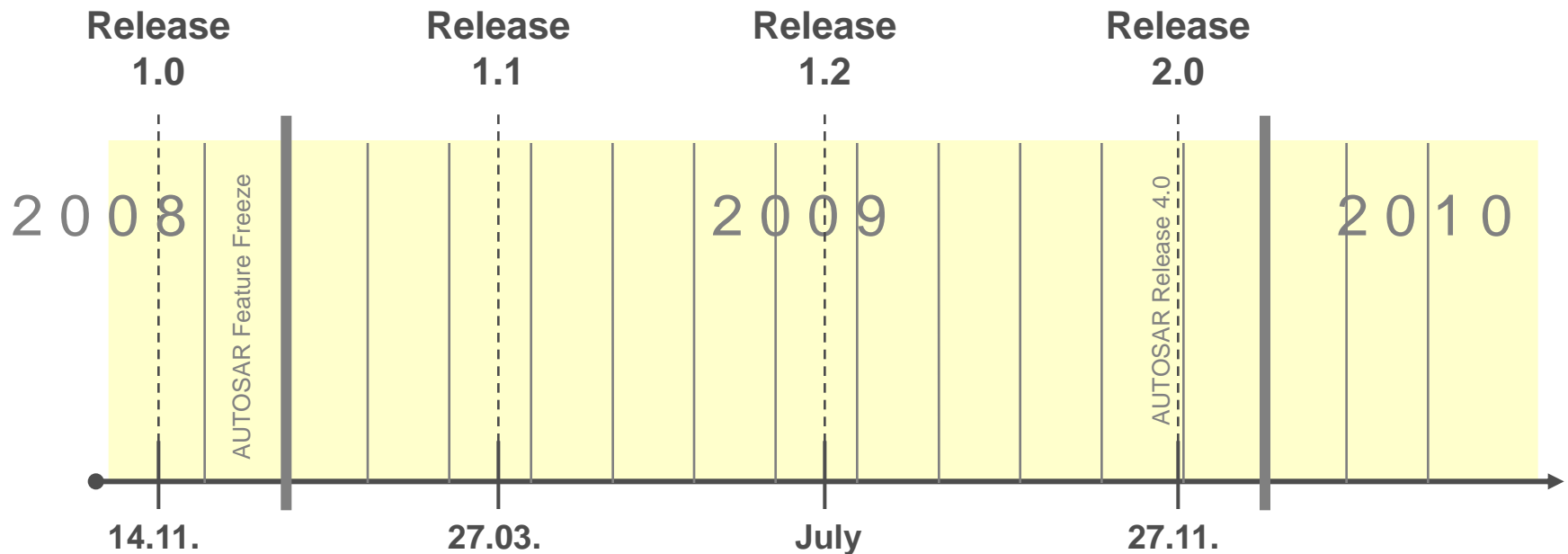| IDE Workbench	Common Navigator	EMF Transaction	EMF Search	GMF	Acceleo, XPand
Core Resources	SWT, JFace	EMF, EMF Edit	EMF Validation	GEF	CDT

Artop 1.1.0 Components & Layer Allocation

- Why are we here?
- **Eclipse comonents required by Artop**
- Eclipse components required by EDONA

- **4 month release cycles**
- **High level release planning until end of 2009 has been published along with Artop 1.0**
- **Detailed iteration plans for next upcoming release is defined at the beginning of each release cycle**

Release 1.0 — 14.11. — 2008 — AUTOSAR Feature Freeze

Release 1.1 — 27.03.

Release 1.2 — July — 2009

Release 2.0 — 27.11. — AUTOSAR Release 4.0 — 2010

Artop 1.1 Target Platform

- Eclipse SDK 3.4.1 ➡ 3.4.2 (Ganymede)
- EMF Query SDK 1.2.0 ➡ 1.2.1?
- EMF SDO XSD SDK 2.4.1 ➡ 2.4.2
- EMF Transaction SDK 1.2.2 ➡ 1.2.3?
- EMF Validation SDK 1.2.1 ➡ 1.2.2?
- GEF SDK 3.4.1 ➡ 3.4.2?
- GMF SDK 2.1.2 ➡ 2.1.3?
- MDT OCL SDK 1.2.2 ➡1.2.2?
- MDT UML2 SDK 2.2.1 ➡ 2.2.1?
- Orbit R20080807152315
  - org.apache.commons.lang 2.3.0
  - org.jdom 1.0.0

- Why are we here?
- Eclipse comonents required by Artop
- **Eclipse components required by EDONA**

Current EDONA Target Platform

- Artop Target Platform (see above)
- Artop 1.0.0 ➡ Artop 1.1.0
- Additional Eclipse Components:
  - Acceleo 2.4.0 SDK
  - Antlr 4.1.1
  - M2M ATL SDK 2.0.1
  - M2T MTL SDK 0.7.0RC1
  - Papyrus 1.11.0
    - Papyrus EADL 1.9.7.1
    - Papyrus SYSML 1.1.5