

# Artop – AUTOSAR Tool Platform. Artop.



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**BMW Car IT**



# Artop - AUTOSAR Tool Platform. Overview.

- What is Artop?
- Why we did it?
- Discussion

# AUTOSAR Tool Platform.

## Situation today – brief summary.

- AUTOSAR has been around for quite a while.
- First series projects are heavily using AUTOSAR.
- Tool support is rather limited.
- Interoperability of available tools is limited (strong **Vendor-Lock-In** of these tools).
- Quite a lot of tools **fail** to fulfill the very **minimum requirements** (i.e. performance, availability for target platform, ...)
- Today's tools cover only parts of the AUTOSAR methodology.

# **AUTOSAR Tool Platform.**

## **Artop User Group.**

### **Artop User Group**

A Group of AUTOSAR members und partners with a special interest in AUTOSAR tools that create and establish the AUTOSAR Tool Platform.

### **Artop – AUTOSAR Tool Plattform**

A jointly developed AUTOSAR tool infrastructure that contains basic, non-competitive parts of an AUTOSAR tool.

#### **Start-Up Members:**

BMW Car IT  
Continental  
Geensys  
PSA

#### **New Partners welcome!**

Requirement:  
AUTOSAR member or partner

<http://www.artop.org>

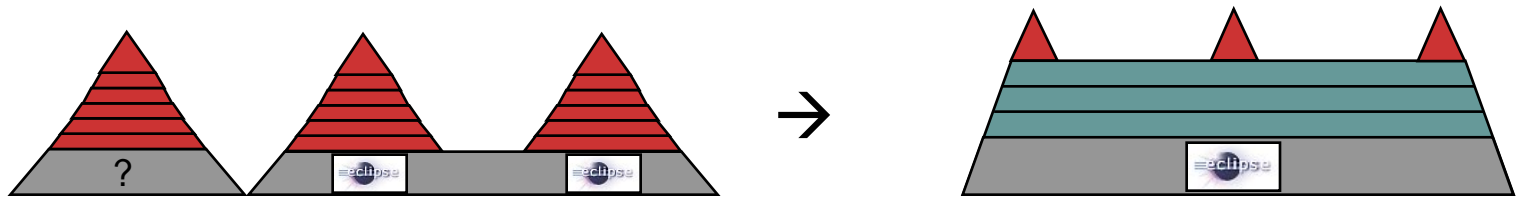
[membership@artop.org](mailto:membership@artop.org)

# AUTOSAR Tool Platform Concept.

## A smarter approach.

Exploit the **Eclipse success factors** for AUTOSAR tools:

→ Create Ecosystem for AUTOSAR tools



### „Open“ tool basis

„Open“ = Common base platform that is open within the  
AUTOSAR community

### Extensibility

custom plug-ins to extend core functionality

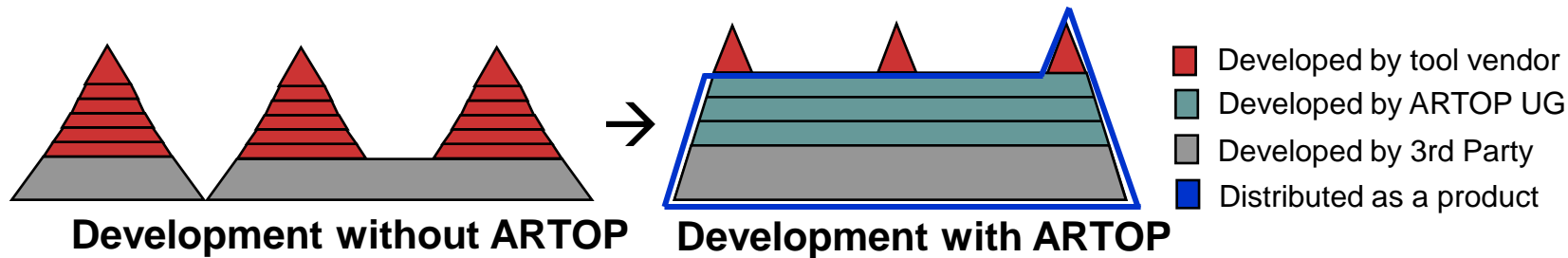
### Large community

Users and developers

# AUTOSAR Tool Platform. Approach.

Artop's approach:

- Cooperative development of an infrastructure basis for tools.



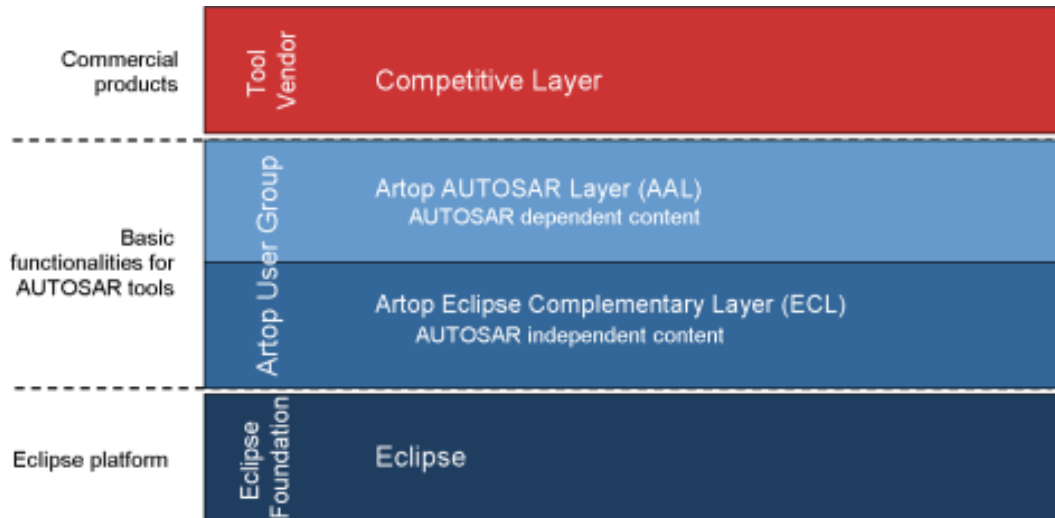
Allows for:

- Specialisation on party's expertise
- Better tool interoperability through common basis
- Better utilization of human resources
- Faster adoption of new versions of the standard
- Better support for migration scenarios
- New business model for tool development
- Establishment of an Ecosystem for AUTOSAR tools ([→Details](#))
- Development of commercial tools based on top of Artop

→ Ecosystem is the new approach (at least for automotive tools).

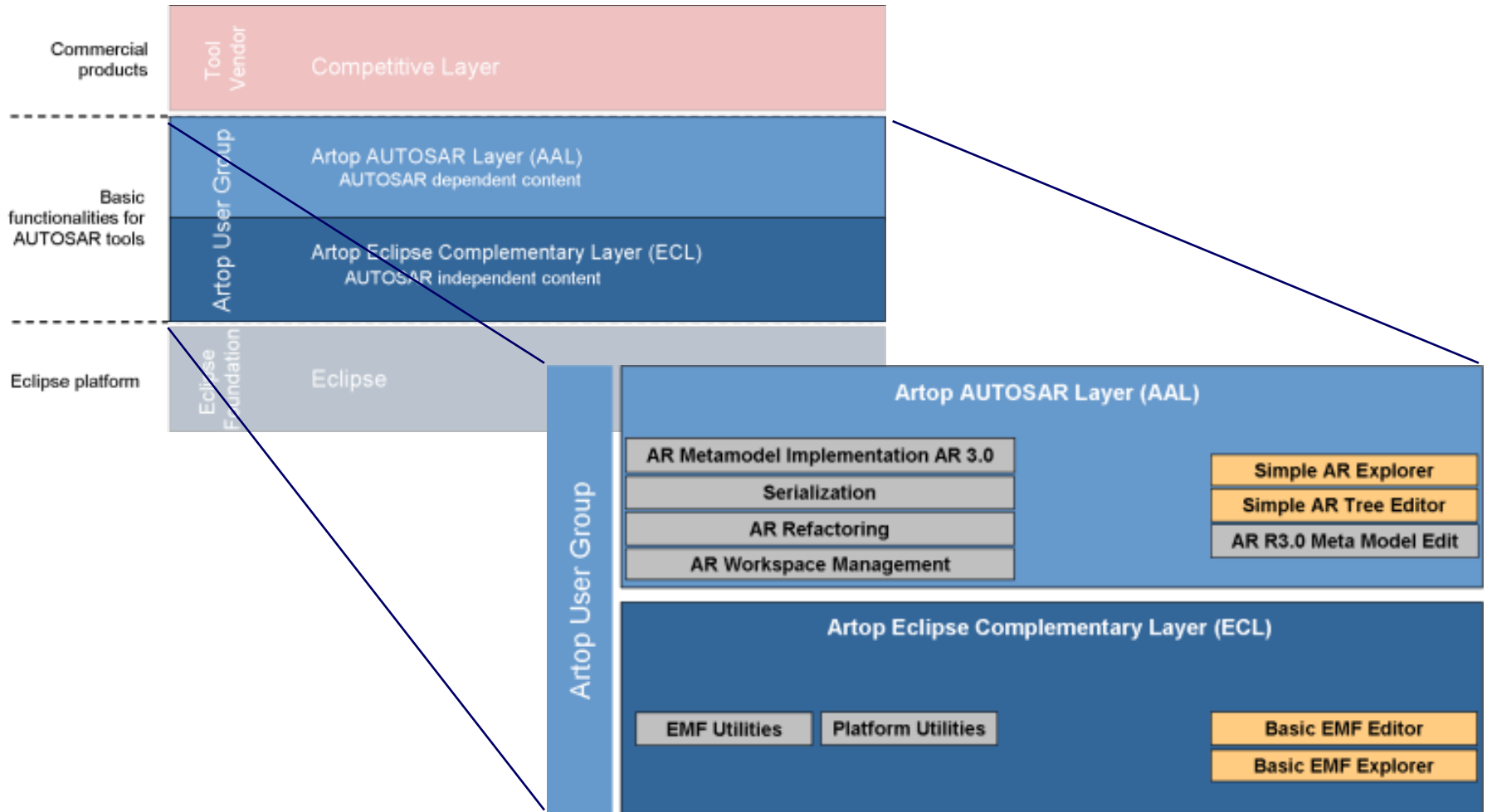
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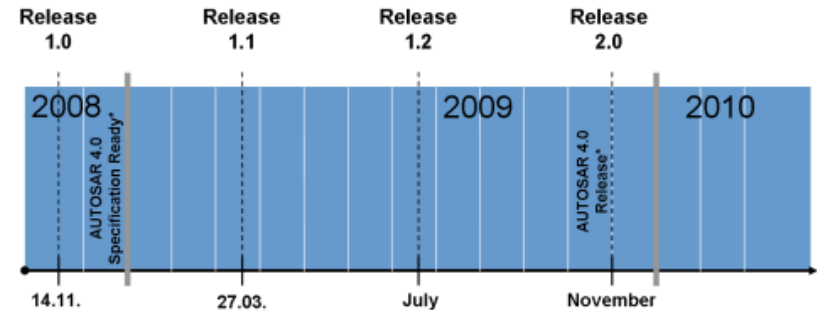




# AUTOSAR Tool Platform.

## Status and next steps.

- ✓ **14-Oct 08:**  
Artop User Group Agreement signed
- ✓ **27-Oct 08:**  
Webseite „www.artop.org“ online.
- ✓ **27-Oct 08:**  
Artop Release Candidate RC1 released  
(available to all AUTOSAR members and partners)
- ✓ **17-Nov 08:**  
Artop 1.0 released
- ✓ **17-Dec 08:**  
Artop 1.1M1 released
- 27-Mar 08:**  
Artop 1.1 on schedule



\* Source: <http://www.autosar.org/> -> „ABOUT AUTOSAR\_“ -> „Schedule“

### 2009:

- Iterative Development of Artop
- Migration of ECL into Eclipse

### End of 2009:

Artop Release 2.0 available close to the point in time of the AUTOSAR R4.0 (Artop 2.0 is based on AUTOSAR R4.0)

# Artop - AUTOSAR Tool Platform. Backup.

# **AUTOSAR Tool Platform.**

## **An Ecosystem that works (1/2).**

- Community approach can only work, if it has **advantages for all participants.**

### **Advantages for OEM's and Tier-1's**

- Better interoperability of tools that share a common base platform.
- Large user base of common platform ensures higher maturity and quality of tools.
- Avoidance of vendor lock-in.
- Investment in tool extensions is safer since extensions are vendor-neutral.
- Effort invested into base platform development is spread over a large community.

### **Advantages for AUTOSAR partnership**

- During the parallel development of the tool platform and the AUTOSAR specifications feedback is generated towards AUTOSAR. Parallel tool implementation will improve the AUTOSAR specification process.

# **AUTOSAR Tool Platform.**

## **An Ecosystem that works (2/2).**

### **Advantages for established tool vendors**

- The development effort needed for maintenance of the base platform is spread over many shoulders, especially the effort that is needed to adapt the platform to evolving AUTOSAR specifications/releases.
- Benefit from large community and resulting higher quality of the base platform.
- Knowledge exchange with other companies in a non-competitive area.

### **Advantages for upcoming tool vendors**

- Lower entry barriers for market entry. The tool vendor can focus on its area of expertise and does not need to invest in the development of a base platform.
- Base platform ensures interoperability in an overall tool chain.

### **Advantages for universities / research institutes**

- Availability of a common base platform enables institutes to focus on their research topic.
- Easy availability of a tool platform encourages AUTOSAR related research.