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, …)

- Todays 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
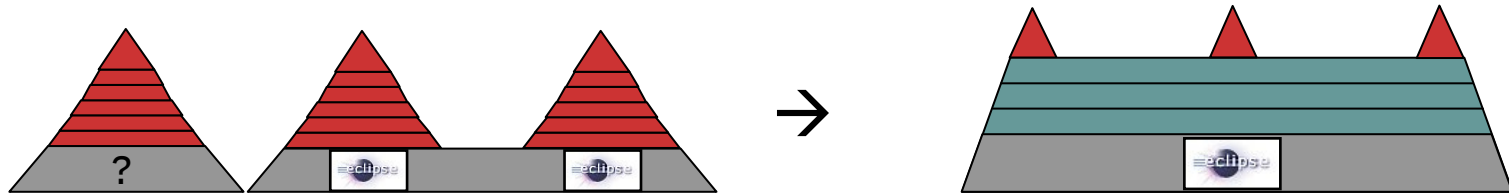
http://www.artop.org

membership@artop.org

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
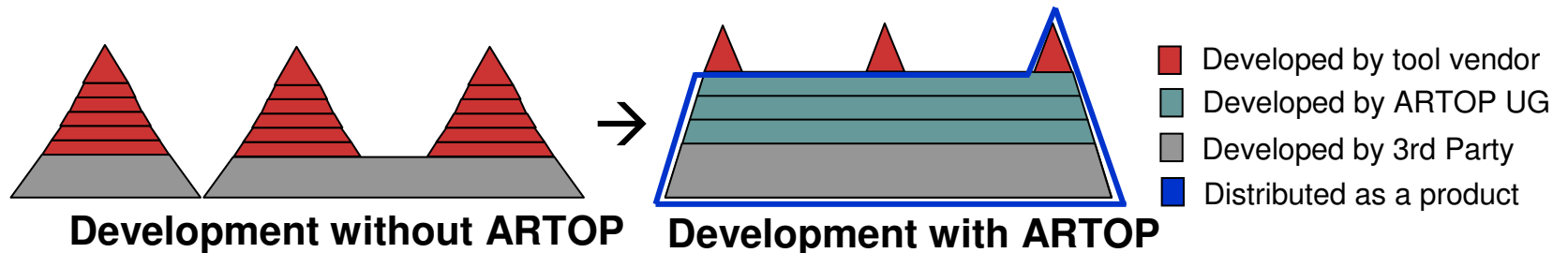> custom plug-ins to extend core functionality

Large community
> Users and developers

AUTOSAR Tool Platform.
Approach.

Artop's aproach:
- Cooperative development of an infrastructure basis for tools.

Development without ARTOP → **Development with ARTOP**

■ Developed by tool vendor
■ Developed by ARTOP UG
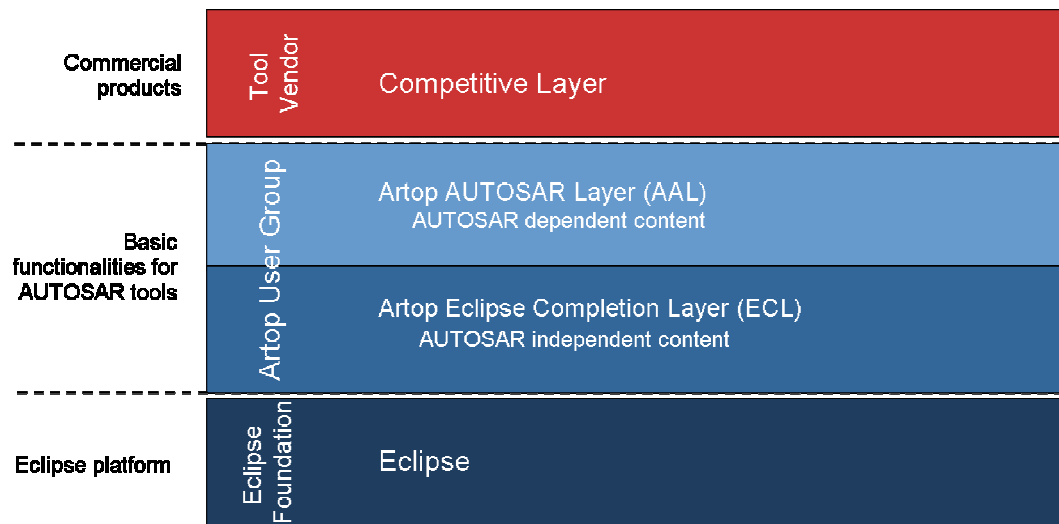■ Developed by 3rd Party
□ Distributed as a product

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

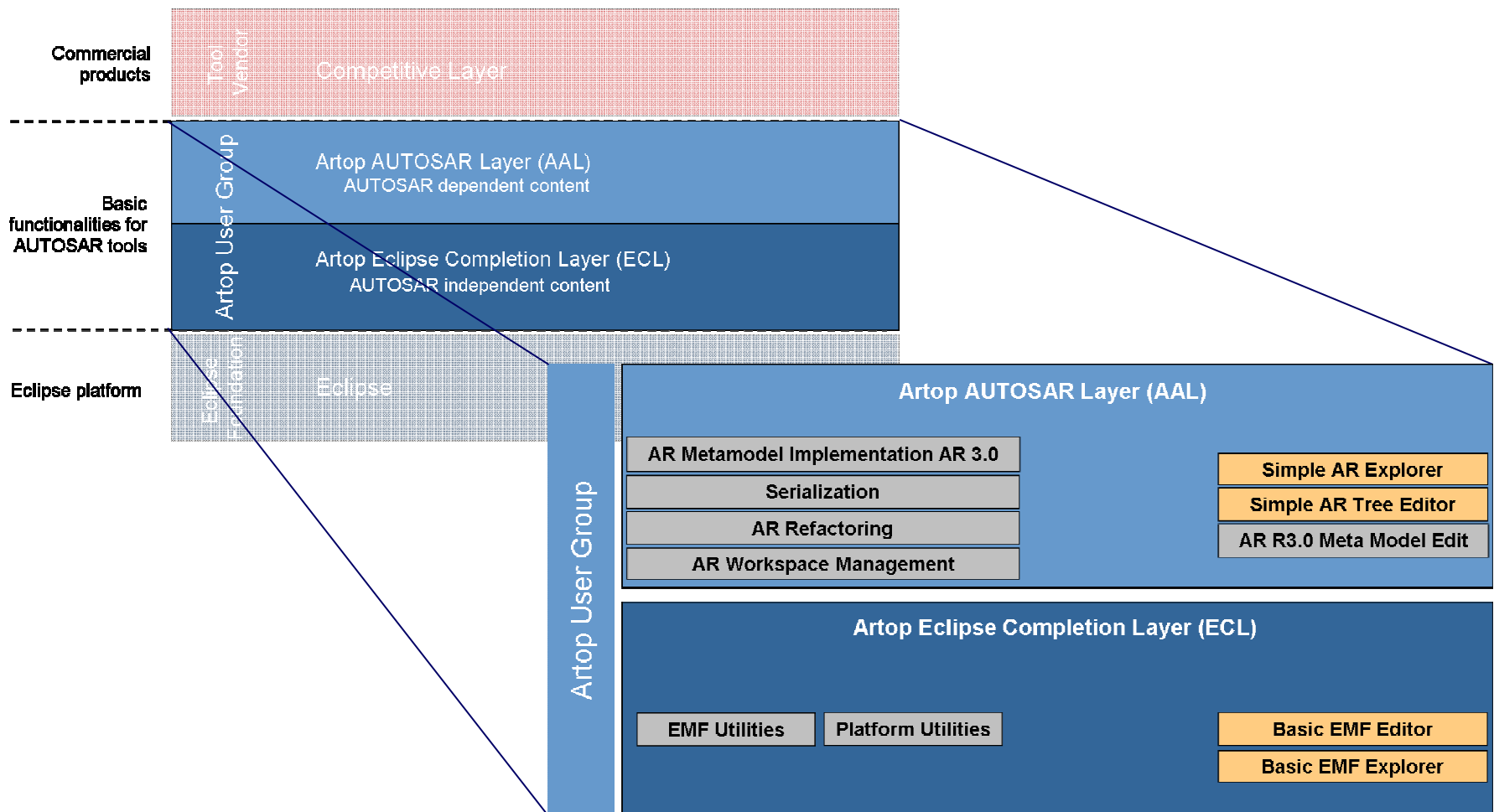→ Ecosystem is the new approach (at least for automotive tools).

AUTOSAR Tool Platform.
Content and Status.

Artop contains: Non-competitive Basic parts, required for every
   AUTOSAR tool

Commercial products	Tool Vendor	**Competitive Layer**
Basic functionalities for AUTOSAR tools	Artop User Group	**Artop AUTOSAR Layer (AAL)** AUTOSAR dependent content
		Artop Eclipse Completion Layer (ECL) AUTOSAR independent content
Eclipse platform	Eclipse Foundation	**Eclipse**

AUTOSAR Tool Platform.
Content and Status.

Artop contains: Non-competitive Basic parts, required for every AUTOSAR tool

AUTOSAR Tool Platform.
Status and next steps.

✅ **14-Okt 08:**
Artop User Group Agreement signed

✅ **27-Okt 08:**
Webseite „www.artop.org" online.

✅ **27-Okt 08:**
Artop Release Candidate RC1 available to
all AUTOSAR members and partners

2008/2009:
Iterative Development of Artop

End 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
  there research topic.
– Easy availability of a tool platform encourages AUTOSAR related
  research.