



Eclipse Industry Collaboration

Agenda

Who We Are

Open Source Models and Ecosystems

The Industry Collaboration Model

Eclipse Industry Initiatives

This is Eclipse

- **Launched in 2001**
 - Initial release of the Eclipse technology platform (Platform, JDT,PDT)
 - Founding consortium board comprised Borland, IBM, Red Hat.....
- **Eclipse Foundation formed in 2004**
 - Independent not-for-profit organization formed in 2004
 - Definition of bylaws, membership model, initial IP process
- **Eclipse Foundation today, Summer 2009**
 - Members include IBM, Oracle, SAP, Nokia, Motorola, Cisco, etc.
 - 167 members, (14 strategic members, 2 enterprise members), 923 committers
 - 93 Open Source Projects
 - Industry-focused projects in Healthcare, Financial Markets

The Eclipse Development Platform

Used by 4.0 million developers worldwide

Evans Data, July 2008

Supports Java, C/C++, PHP, Python, Ruby, Rcl, Ajax, COBOL, Ada, Fortran,

Delivers OSGi-based runtime technologies that runs on devices (Nokia S60), desktops (Lotus Notes) and servers (WebLogic, WebSphere)

Eclipse Membership at Large



THE HANSEN REPORT ON AUTOMOTIVE ELECTRONICS

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Progress on Integrated Software Development Tools

Carmakers Consider Open Source and Commercial Solutions

Software is the means by which a carmaker can stand apart from other carmakers. Carmakers who get software development right are able to bring new and better features and functions to the market faster and at lower costs than those who don't. And as software com-

BMW Leads Open Source Infotainment Initiative

Daimler On Board; GM and PSA Will Probably Join

Already in hypercompetitive mode, the infotainment industry is facing further upheaval following BMW's recent announcement that it has joined with Intel, Wind River and others in an effort to promote an open source infotainment and communications system platform based on Linux. A viable open source platform will force infotainment suppliers to change the

Because it takes way too much time to develop new infotainment features and functions, embedded systems today tend to be not only much more expensive than they should be, but also lacking in the most up-to-date technologies.

Embedded infotainment systems, with their big displays and driver-safe user interfaces, need to be periodically updated to keep pace with the latest portable consumer electronics they are supposed to

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Progress Integrate Develop

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customization, configuration and maintenance costs.

OSEE is an open source development project under the Eclipse Foundation, a consortium of major software vendors, corporations and academia focused on developing a universal platform for software development tools.

Carmakers facing the enormous challenge of disconnected software development tools are considering two possible solutions: 1. Participate in an Eclipse Foundation open source project to develop an integrated tool chain, or 2. Purchase a new tool environment for managing the engineering process, for example, Vector Informatik's eASEE.

Eclipse Foundation Open Source Tool Integration Project

Ralph Müller, the Eclipse Foundation's director of Ecosystems Europe, has been talking to carmakers and suppliers about forming an automotive core group that would develop an open source framework for an integrated tool chain based on pre-

bidirectional traceability throughout the development V model.

Benefits of Cooperating on Eclipse Open Source Tool-Framework Projects

- ◆ Projects can progress even as team participants change.
- ◆ Participants collaborate on infrastructure technology where they don't necessarily compete.
- ◆ No royalties are due.
- ◆ Lessens the need to rely on a proprietary tool from a company that could go out of business, taking the intellectual property with them.
- ◆ Tools built to run on the platform are far less expensive to integrate, and they have the same look and feel.
- ◆ Standardizing by actual implementation is a faster, more direct path than first writing standards.
- ◆ Lowers entry barriers so more suppliers can participate.
- ◆ Makes use of the Eclipse ecosystem of suppliers and service providers.
- ◆ A majority of the toolmakers serving the auto industry already use aspects of the Eclipse platform.

Autosar infrastructure elements that each tool must fulfill and share them. It lowers the initial hurdle for each tool developer. They can then more easily design the tool extensions they need," he explained. Dr. Heinecke heads BMW's Car IT subsidiary.

In a paper delivered at the Embedded Real Time Software Congress in Toulouse, France, January 2008, Dr. Heinecke and his coauthors had high praise for Eclipse: "Eclipse is one of the most successful open source projects around. ... [It] is such a convenient starting point for developing applications, more and more people use it, extend it, and themselves contribute their extensions back to the community so that the Eclipse core grows in functionality and quality. Those success factors of Eclipse could be applied to an open Autosar tool framework as well."

But Autosar will not take the classic open source approach. Rather, it will limit some of the intellectual property associated with the tool to Autosar members, because only Autosar members are legally **continued on page 8**

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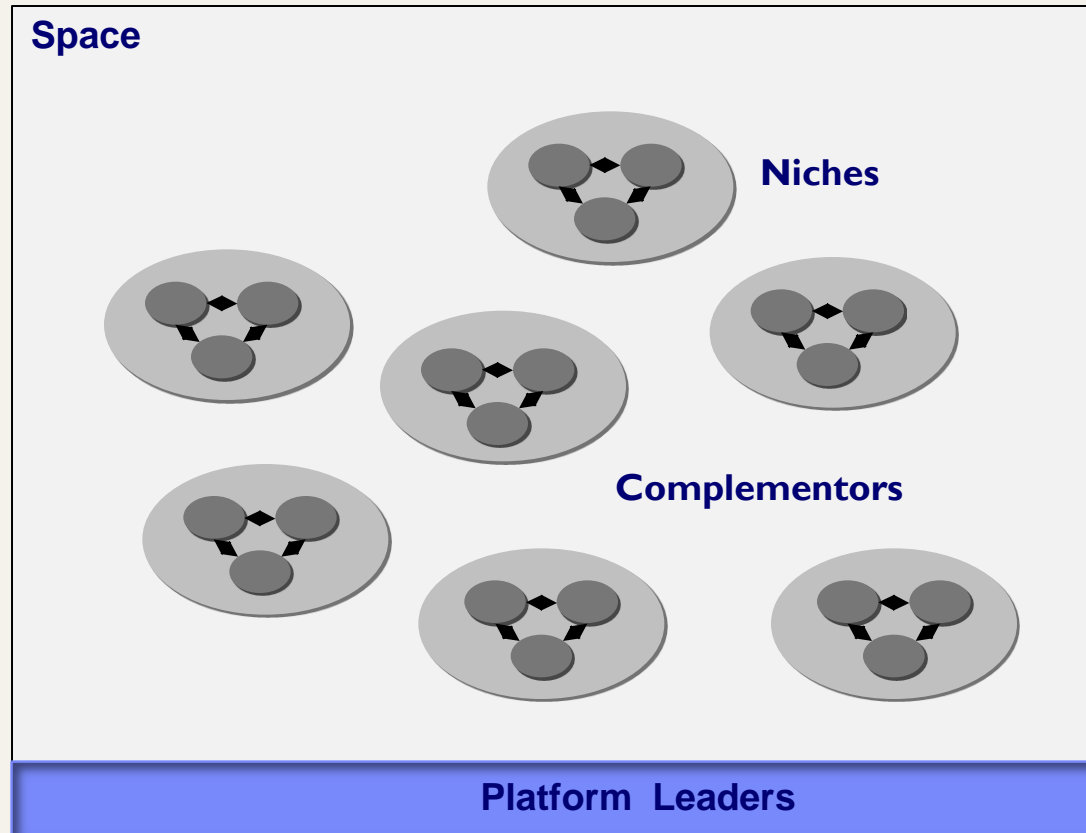
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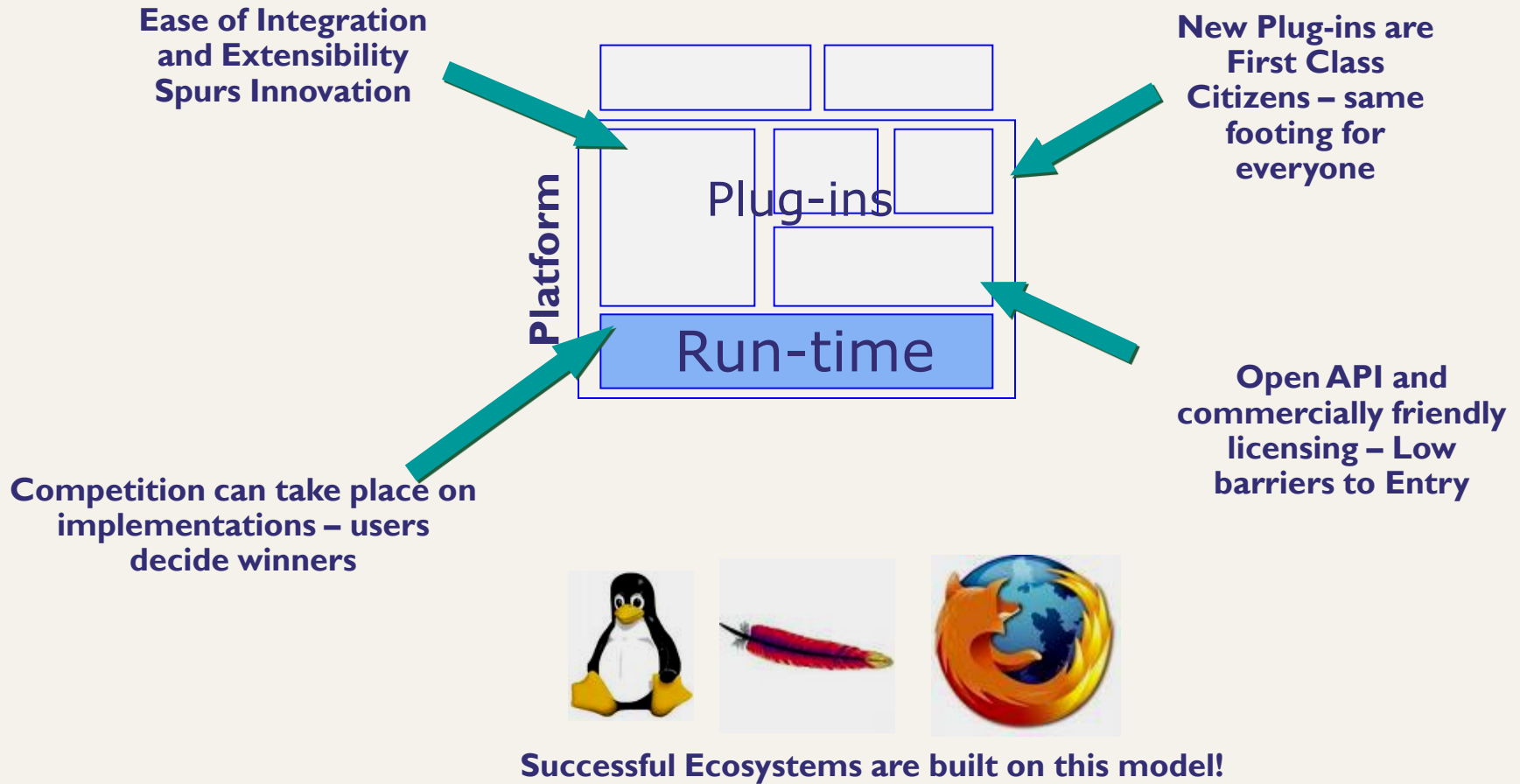
What is an Ecosystem?



You Already Know These...



Platform Modularity: The Eclipse Experience



Creating an Shared Ecosystem

Requirements include:

Licensing model for sharing co-developed innovation

Project model for coordinating investments and activities

Governance model to ensure a level playing field for all participants

Highly modular technical architecture for the platform

Successful open source organizations provide these “out of the box”

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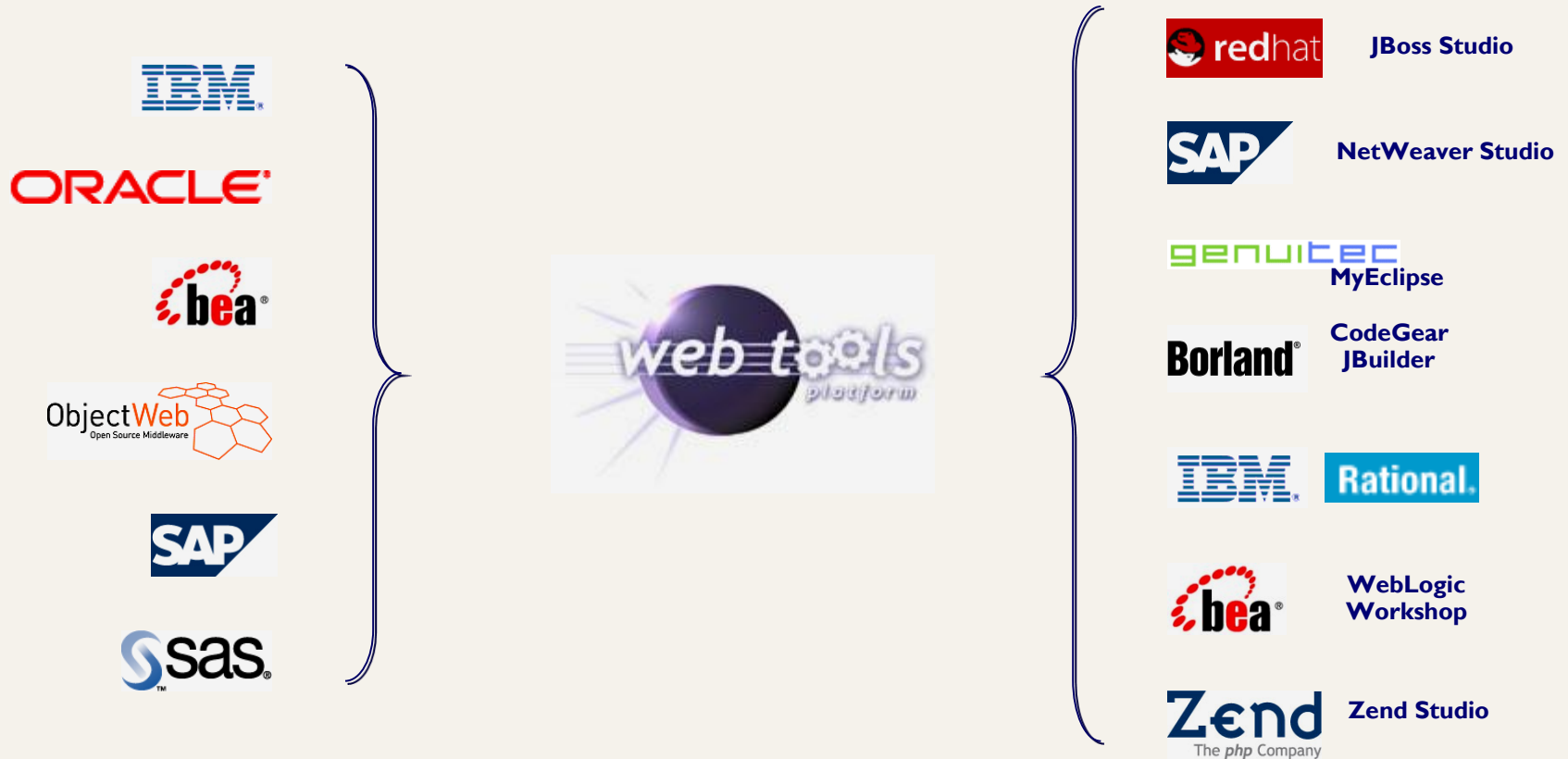
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A New Way: Open Collaborative Development

- Eclipse and Open Source Software (OSS) is a proven new way for collaborative software development
- Eclipse has established best practices for multi-organizational collaboration, including development process, IP sharing, technical architecture and governance.
- Example
 - Eclipse Web Tools Project includes participating by Oracle, IBM, SAP, BEA
 - Eclipse C/C++ Development Tools includes participation by Wind River, TI, IBM, QNX, Symbian, others...
 - Eclipse Open Health Tools includes participation by the Mayo Clinic, Kaiser Permanente, UK NHS, US Veterans Administration, IBM, ...

The Eclipse Web Tools Platform Project



Eclipse Industry Working Groups

Eclipse Industry Working Groups (IWG) allow organizations to collaborate and innovate on the creation of technology, specifications and best practices for a specific industry or market.

Eclipse Industry WG provide:

The legal agreements to share intellectual property rights.

The ability to pool resources to create new technology and standards.

IT infrastructure to facilitate collaboration between a distributed team.

A governance model and process to ensure a level playing field

A technology platform

What can be accomplished in an IWG

IWG typically focus on solving a problem that is shared in a specific industry

IWG can:

Create packages of Eclipse projects tailored to meet the needs of a specific industry

Define recommended specifications to be implemented by an Eclipse project(s)

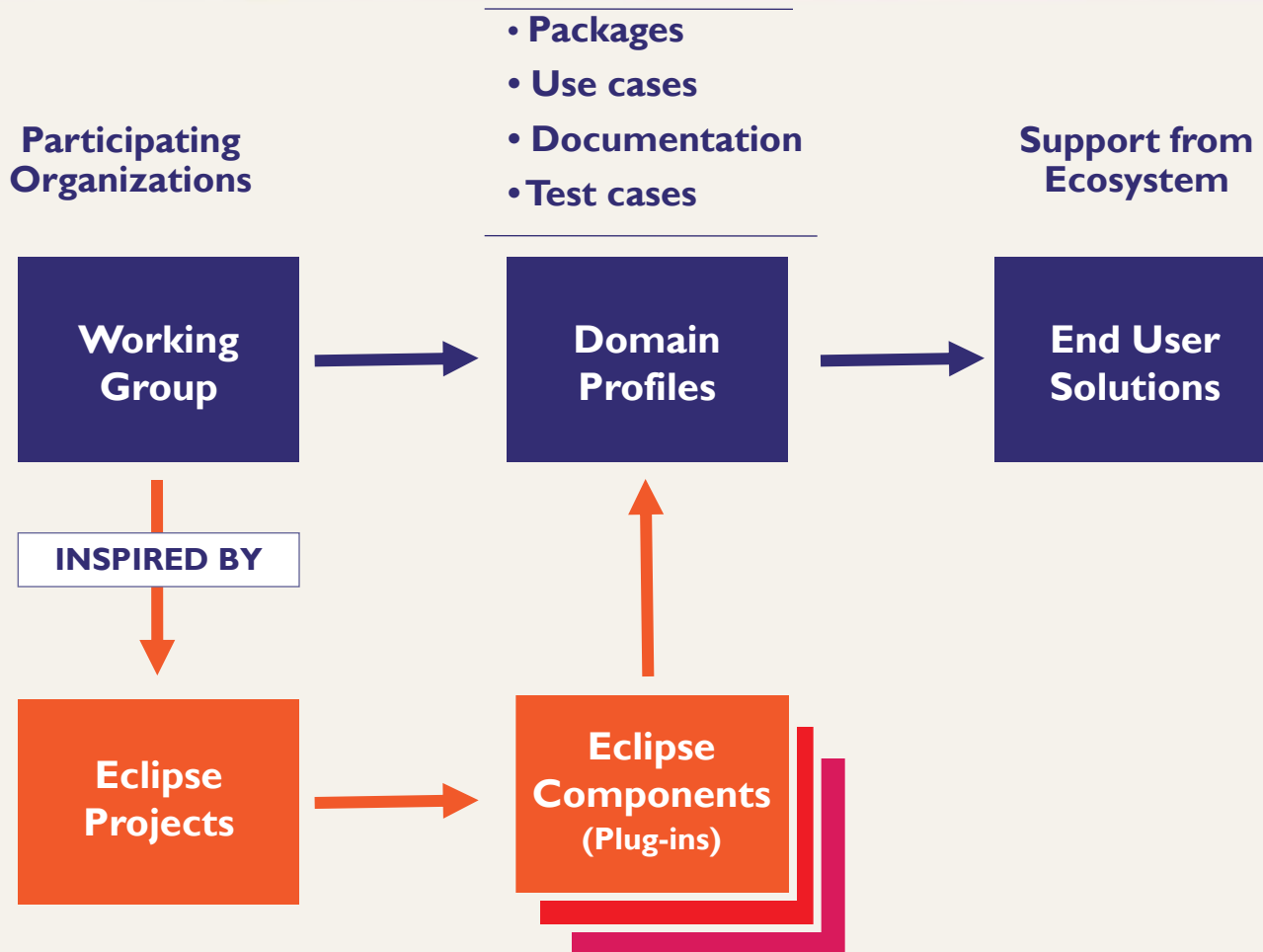
Document requirements that will be used as input into an Eclipse project

Write best practices documentation

Implement End to End use cases and testing

Execute marketing programs to create awareness for the WG offering

Eclipse Industry Working Groups



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Pulsar is a tools integration platform for the mobile developer. It make it easy to get the tools and handset SDKs you need for developing mobile applications.



Getting Started

Look here to get up to speed on Pulsar



Download Pulsar

Download the Pulsar Package



■ Silicon Valley Android MeetUp

2009/06/05

■ MOTODEV Podcast - Mark Chang from Olin College

2009/06/05



■ Resources

2009/04/30

■ Java Application Development

2009/04/30

Forum.Nokia.com
Driving mobile innovation

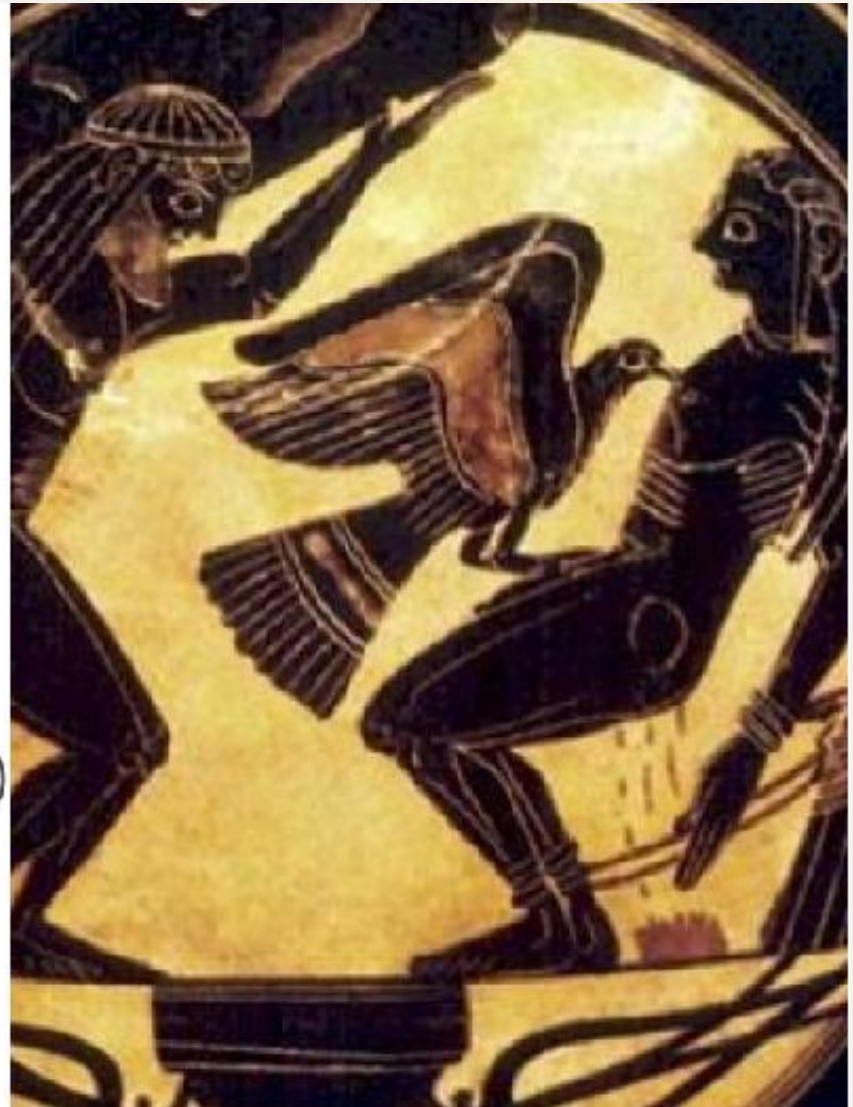
■ Nokia WRT Extension for Adobe Dreamweaver

Prometheus Foundation

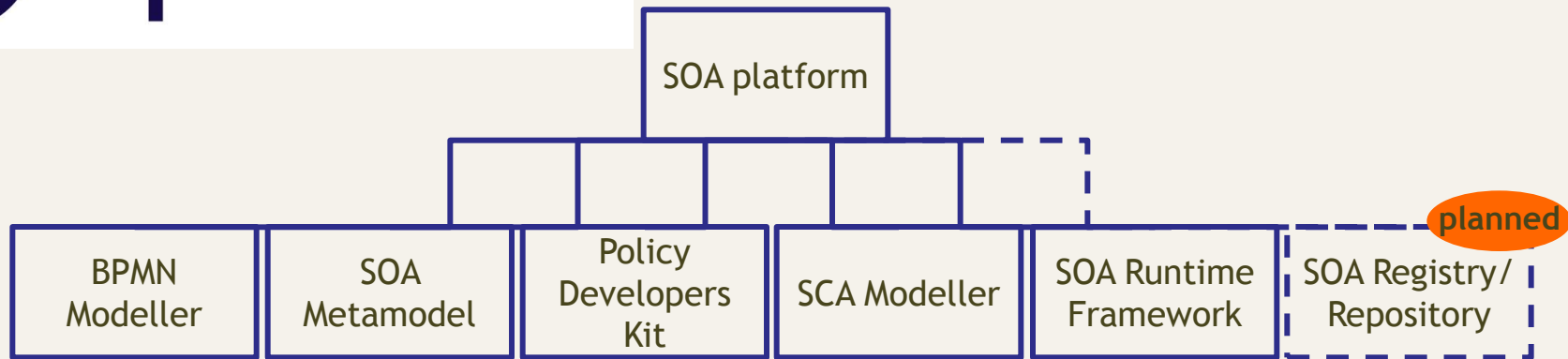


Scope

- Broker software platform
- Process support
 - tariffs, inquiries, application, (damage)
 - data validation
 - data interchange
- CRM functionality



eclipseSOA



planned

Major contributors

INTALIO INRIA SOPERAs beo SOPERAs SOPERAs

ENGINEERING PROGRESS SOFTWARE PROGRESS SOFTWARE PROGRESS SOFTWARE

PROGRESS SOFTWARE

SOPERA is in talks with other members to join forces

Eclipse & Automotive Tools

- Vision
 - Automotive companies are collaborating on common tooling platforms to improve their agility and reduce cost
- Mission
 - An Automotive Industry Working Group is started in Q1 2009

Trend: New Players and Business Models



Trend: Software Ecosystems



Key Business Requirements

- Open platform: low barriers to entry
- Standards based, API neutrality
- Support integration of new consumer devices
- Enable an ecosystem:
 - vendor neutral, no vendor lock-in
 - open governance
- Enable alternative business and delivery models for applications and content
 - 3rd party integration (AppStore model and others)
- Controlled, certifiable software platform delivery
- Attract developers; make them productive

Questions?

THANK YOU!