# AMASS

Architecture-driven, Multi-concern and Seamless Assurance and Certification of Cyber-Physical Systems

## WP7 - Community Building

1st EAB Workshop
11 September, 2017

Gaël Blondelle
WP7 Leader
Eclipse Foundation Europe GmbH

# Noteworthy Networking activities

| Projects | Networking activities |
|---|---|
| SafeCOP | SafeCOP (Safe Cooperating Cyber-Physical Systems using Wireless Communication) will establish a safety assurance approach, a platform architecture, and tools for cost-efficient and practical certification of cooperating CPS.<br>Common workshop organized in Stockholm during Addalot Safety conference 2017 in May. |
| OMG System Assurance Task Force | This task force specific activities include the development of the SACM specification for assurance case modelling.<br>AMASS Partners (UC3, Tecnalia) participate to the Task Force. |
| CP-SETIS | CP-SETIS (Towards Cyber-Physical Systems Engineering Tools Interoperability Standardization) is a support-action type IA of Horizon 2020 aiming at harmonizing and creating a sustainable infrastructure for maintaining the IOS (Interoperability Specification) set of standards.<br>Connection through the participation of some partners to to both projects (AIT). |
| ESPRESSO | Swedish project aimed at increasing readiness to comply with ISO-26262.<br>Collaboration of MDH with Scania. Reuse of safety cases. |

# Industrial Adoption Program – context

- Target Groups
  - Industry
  - Policy makers
  - Research/Scientific/Open Source communities
  - SMEs
- Expectations
  - Compliance with certification process for safety-critical systems
  - AMASS results
  - Open tool platform to manage safety analysis, documentation and certification

# Industrial Adoption Program – Roadmap

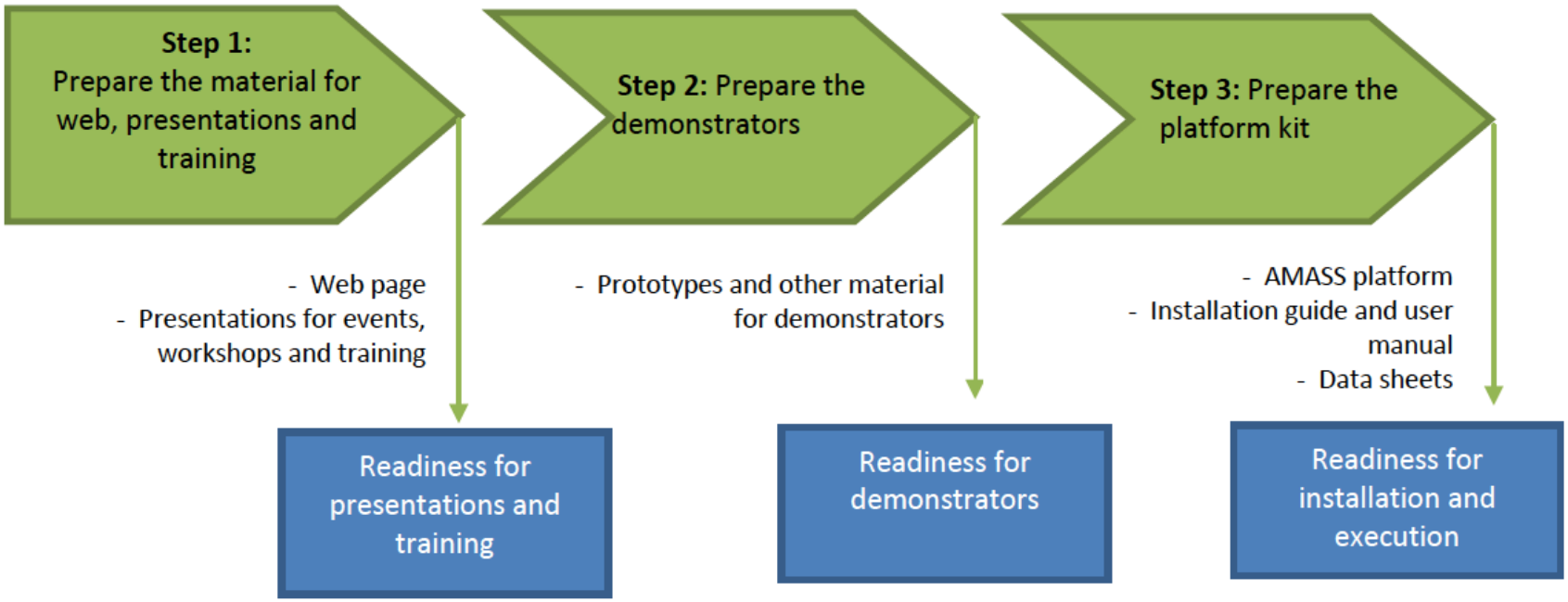



**Figure 2.** Workflow for the Industry user group

# Industrial Adoption Program – Roadmap

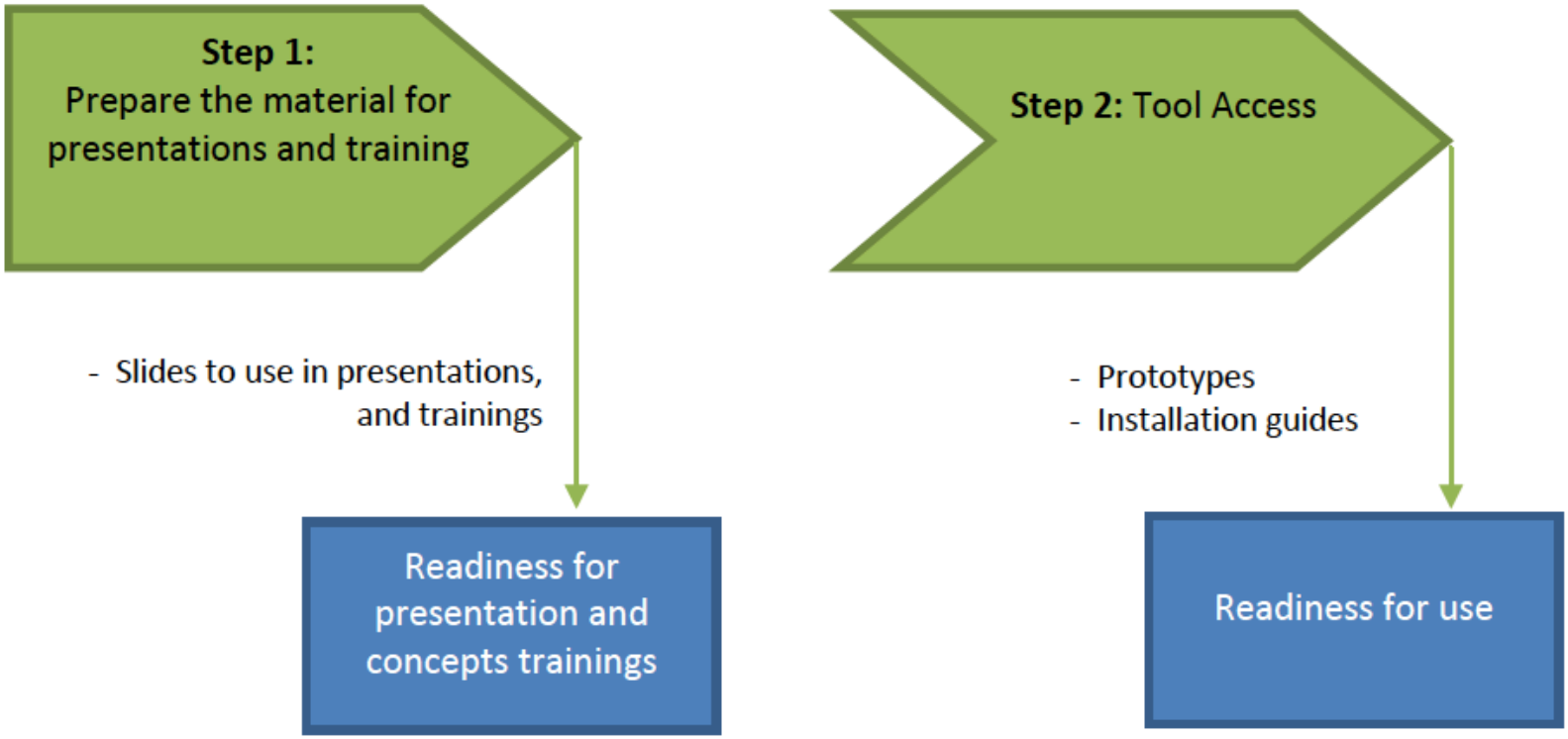



**Figure 3.** Workflow for the Research and Scientific user group

# Industrial Adoption Program – Roadmap

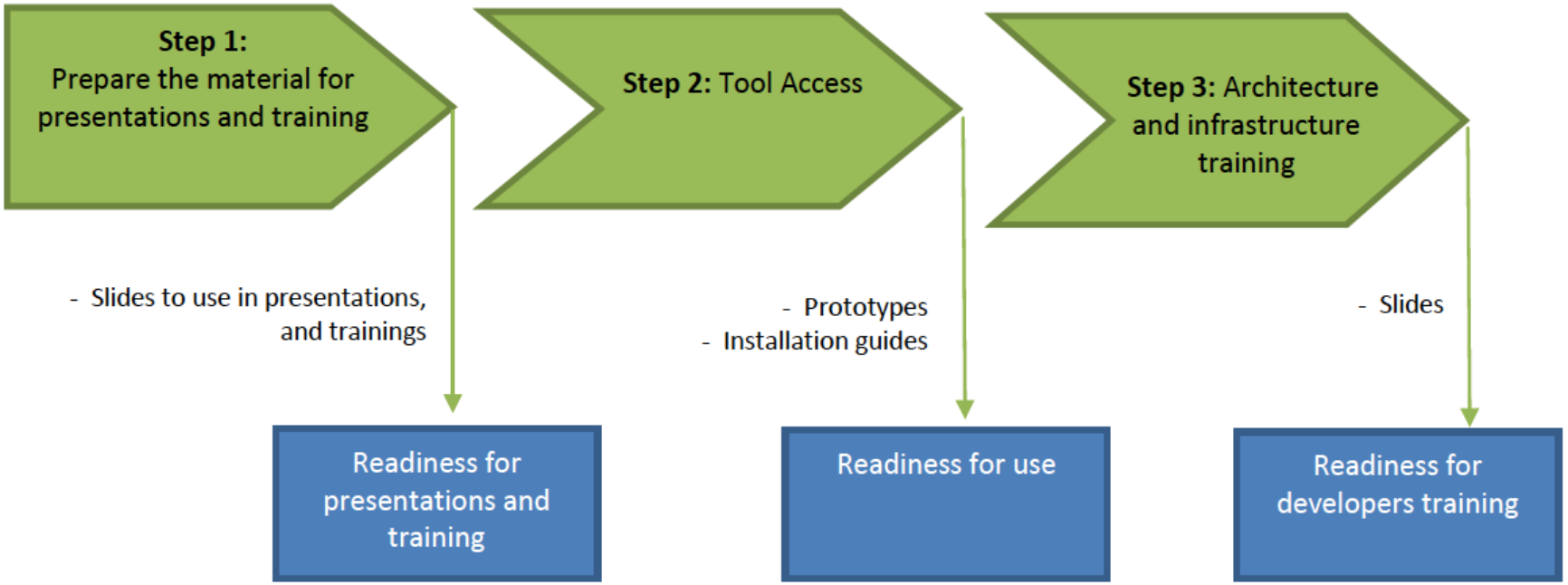



**Figure 4.** Workflow for the Open Source Community user group

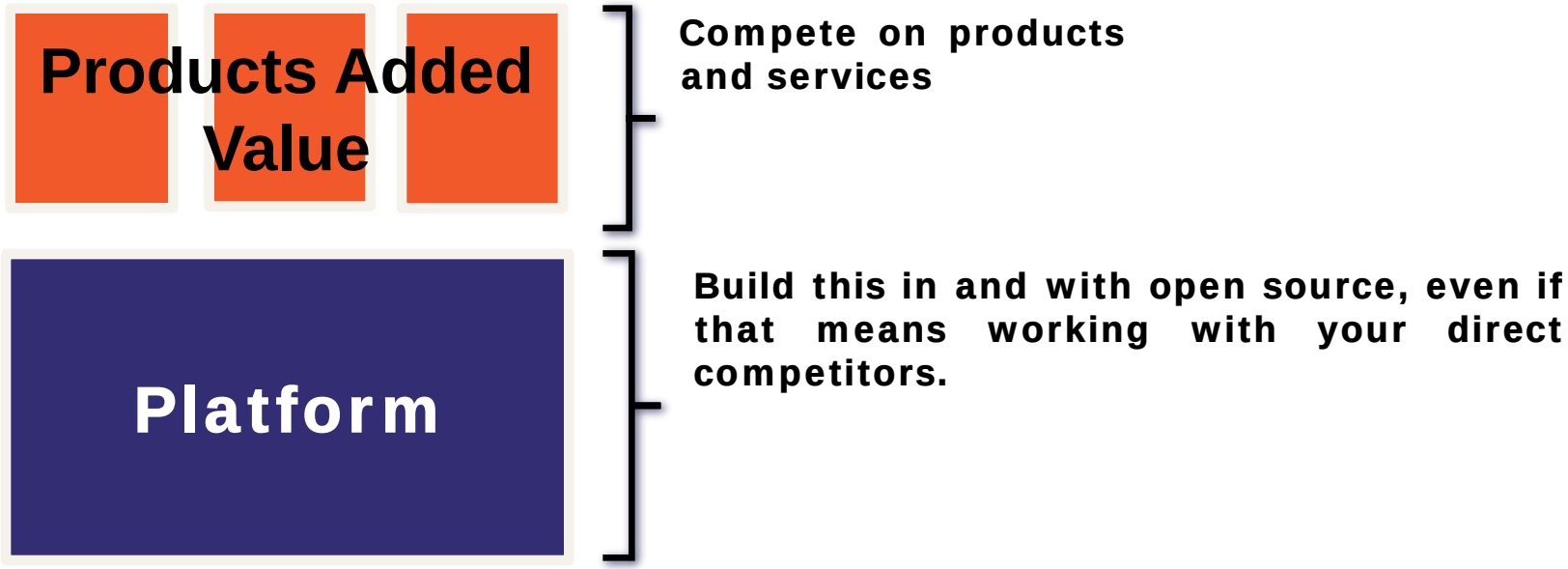
# Leverage Open Source to create an industrial community

# From the AMASS proposal

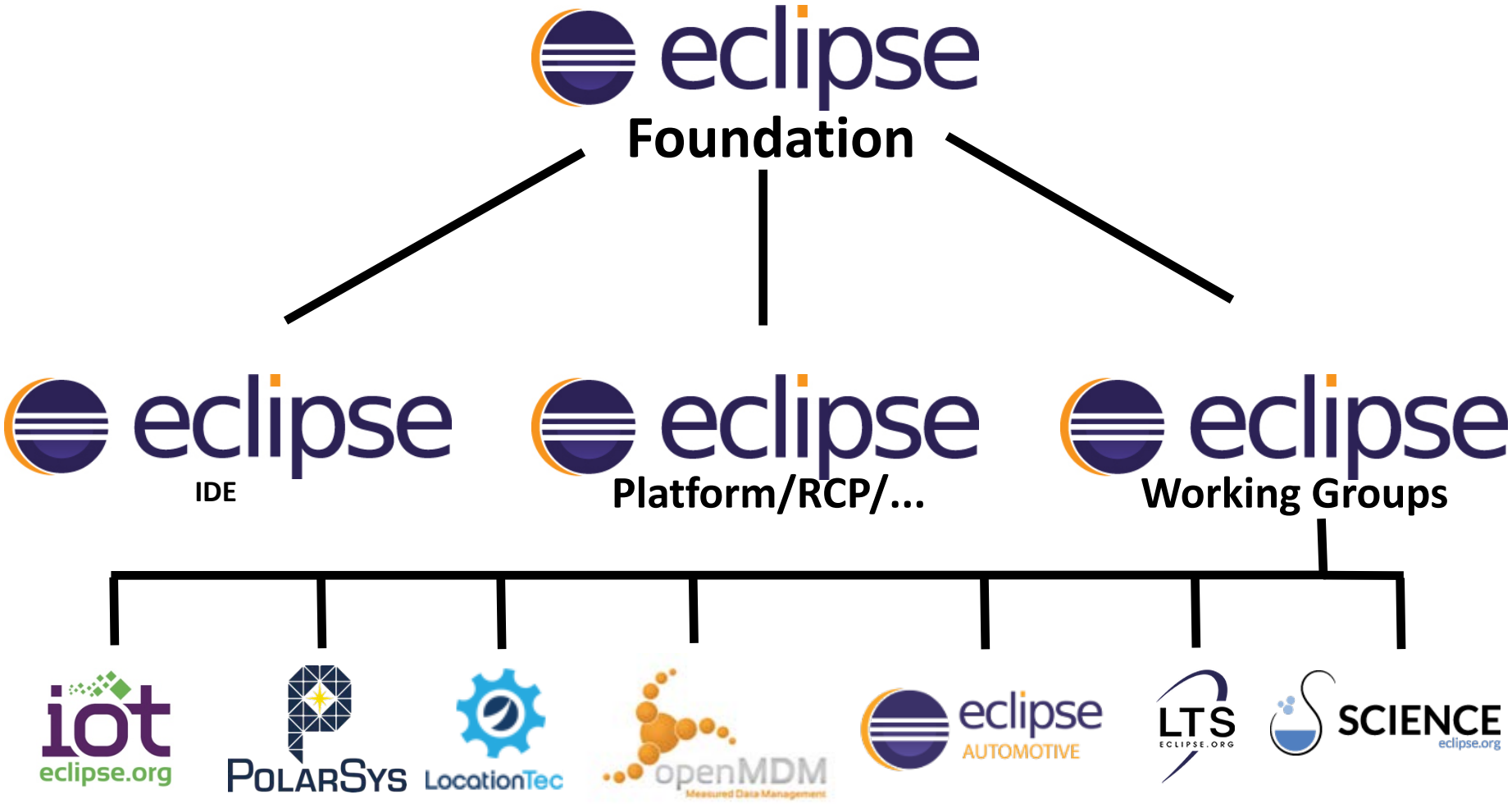
- … the release of the AMASS tool platform as open source in Eclipse and PolarSys will help establish a industrial community around the project by bringing more worldwide visibility through all PolarSys members, and through all PolarSys marketing activities.
- An important goal of AMASS is to establish **a community for the AMASS platform** under the Eclipse ecosystem and here especially contributing to the Polarsys platform, targeting tools for embedded system development. …

# Eclipse Foundation supports “business friendly open source ecosystems” based on extensible platforms

- Identify precisely what your competitive differentiators are for your customers
- Focus all possible energies there, and acquire everything else from OSS, or help build it in OSS
- Open source platform to foster interoperability



# Working Groups add a new dimension



# Transparency

Andrew Magill – flickr.com

# Openness

Chris J. Fry – flickr.com

# Meritocracy

# PolarSys Working Group

- PolarSys is the Eclipse Working Group dedicated to Open Source tools for **systems and software engineering.**
- Domains: **aerospace**, **defense** and **security**, **energy**, **health care**, **telecommunications**, **transportation**.
- Some projects:
  - **Capella, Papyrus, Papyrus RT, B612, OpenCert, Chess, …**

## Steering Committee Member

AIRBUS · AIRBUS DEFENCE & SPACE · AIRBUS HELICOPTERS · CEA LIST · ERICSSON · SAAB · THALES

## Participating Member

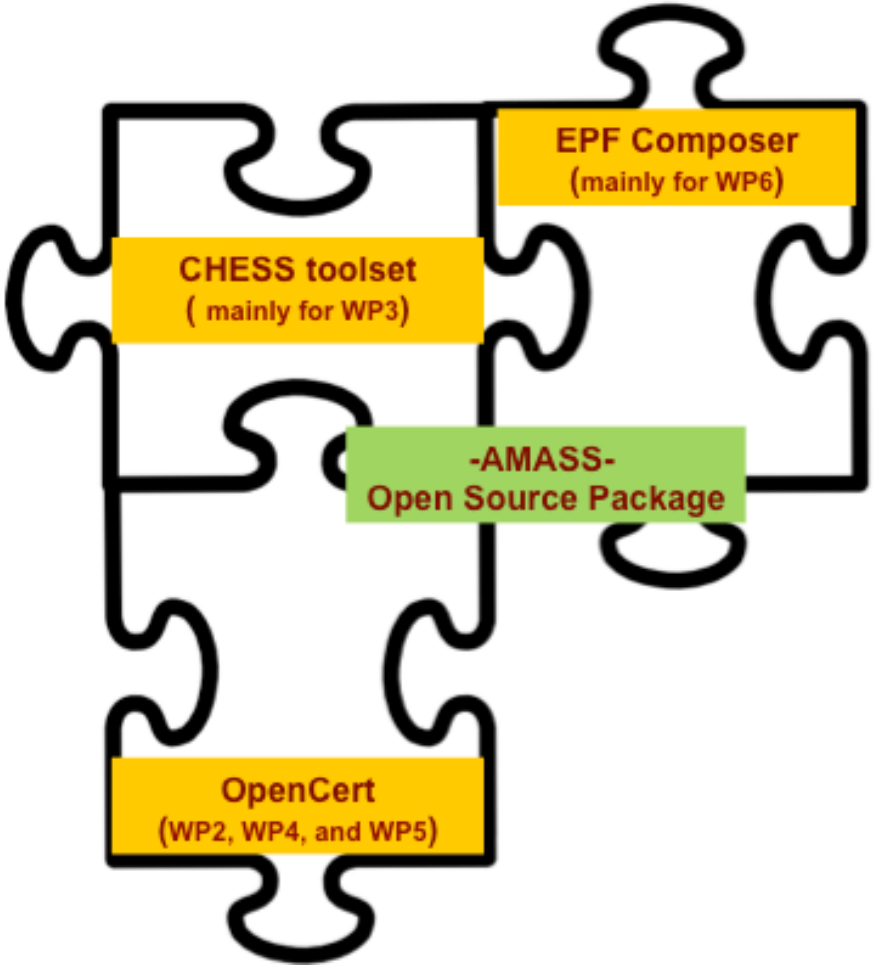
ADOCUS · Artal Technologies · Cmind · COMBITECH · EclipseSource · esi · FLANDERS MAKE · Fraunhofer FOKUS · OBEO · OneFact · SHERPA · tecnalia · zeligsoft

## Guest & Academic Member

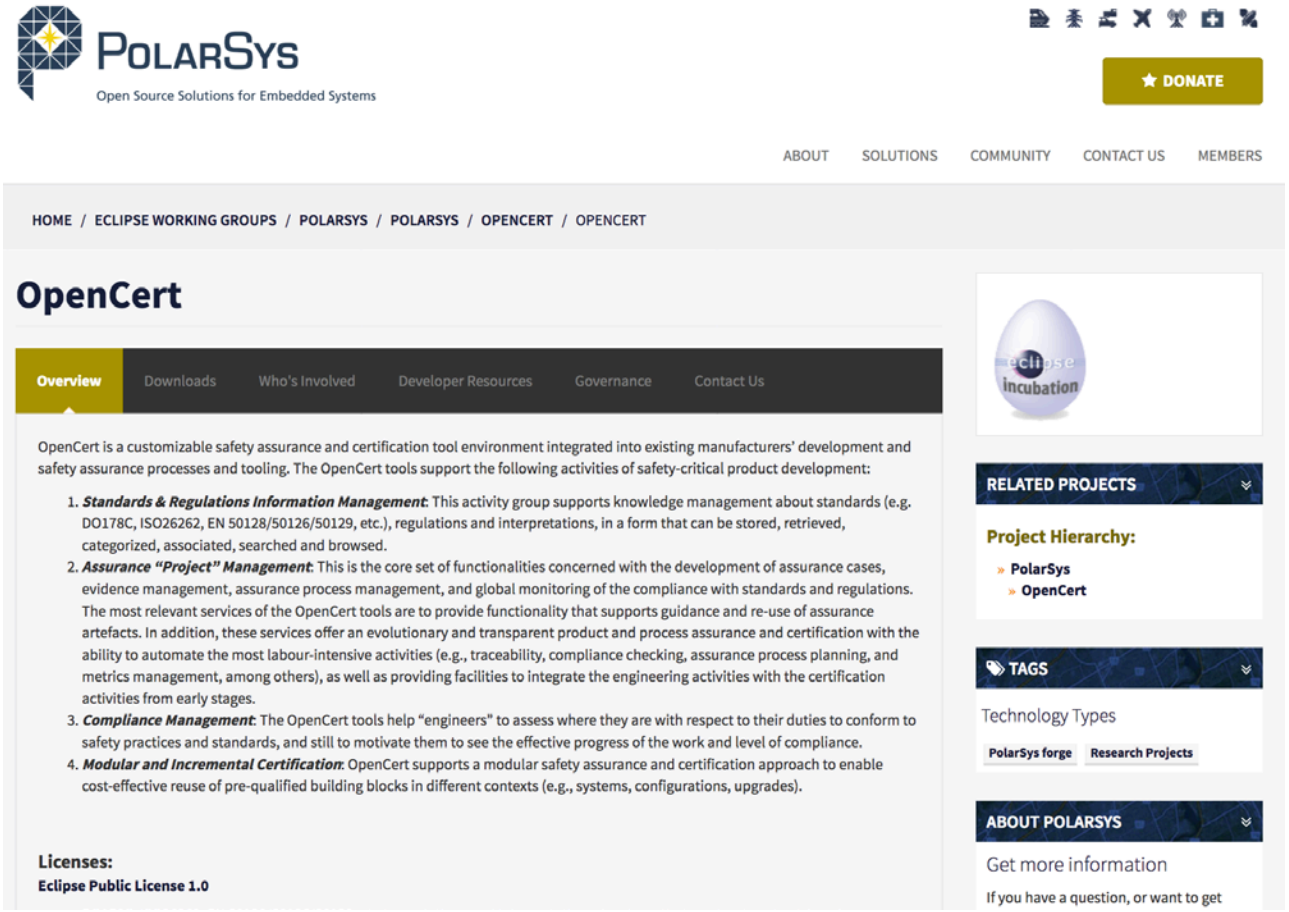
Queens · tmforum · University of Skövde

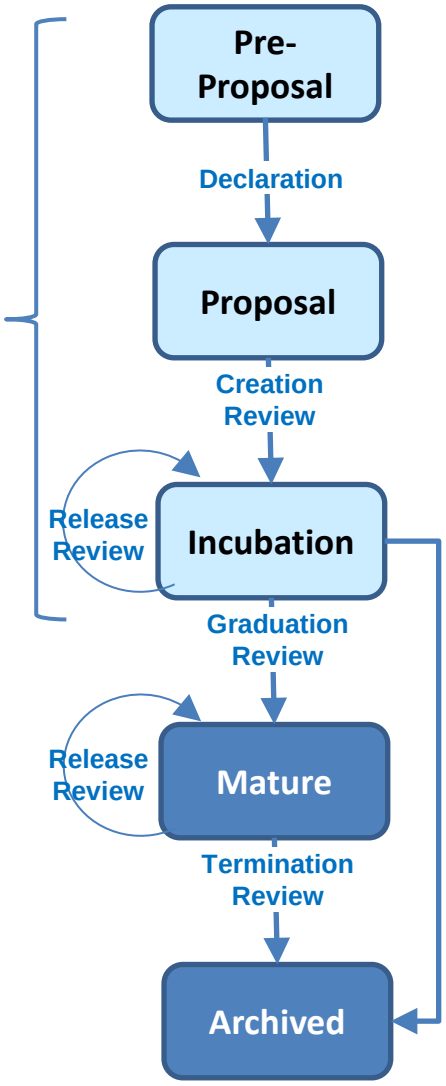
# The AMASS Open Source Platform

- The AMASS Open Platform as a new platform for new safety and process assurance approaches.



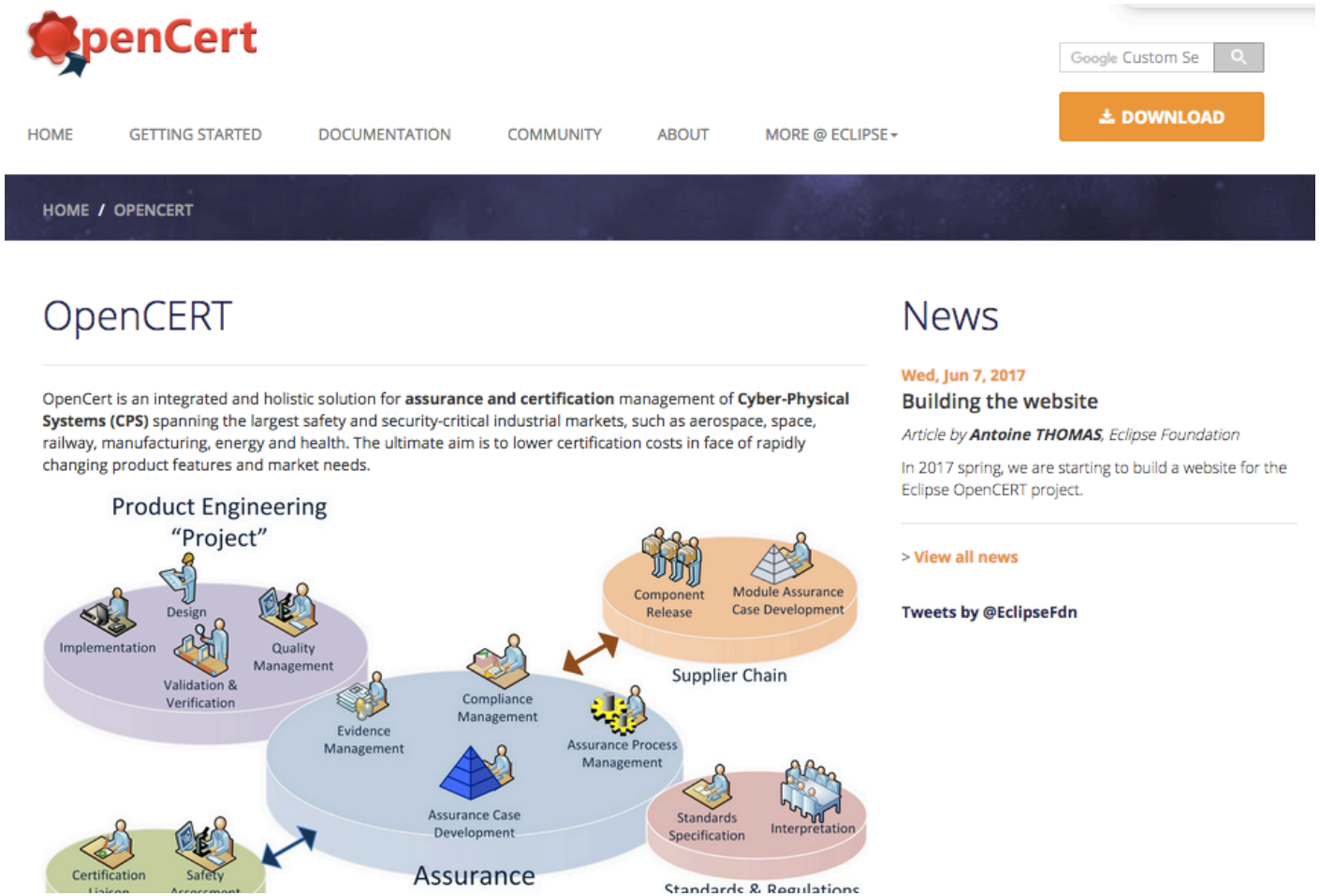
# Example of the OpenCert project



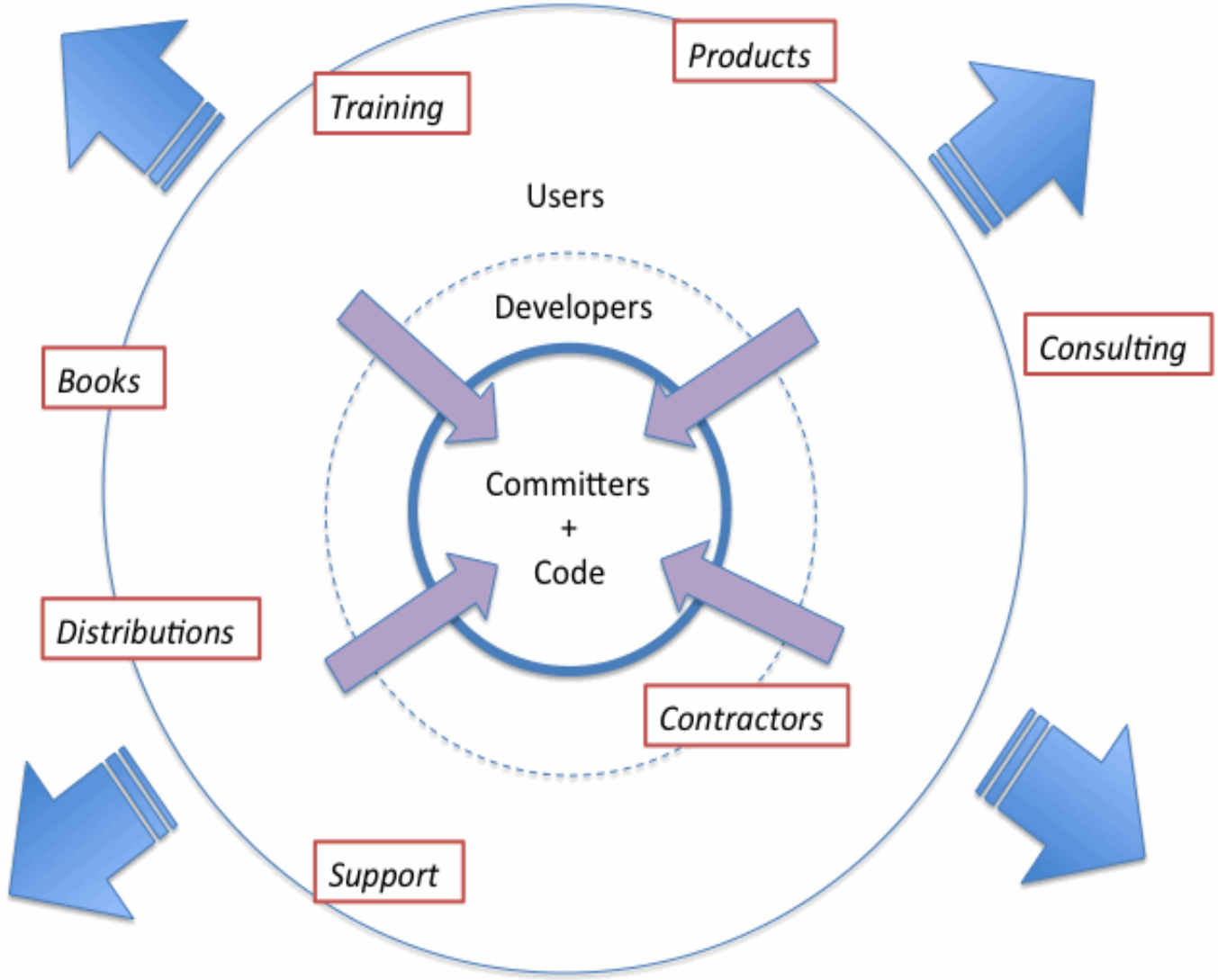




Eclipse Development Process

# Promoting OpenCert and the AMASS open platform



# Developing the open source ecosystem



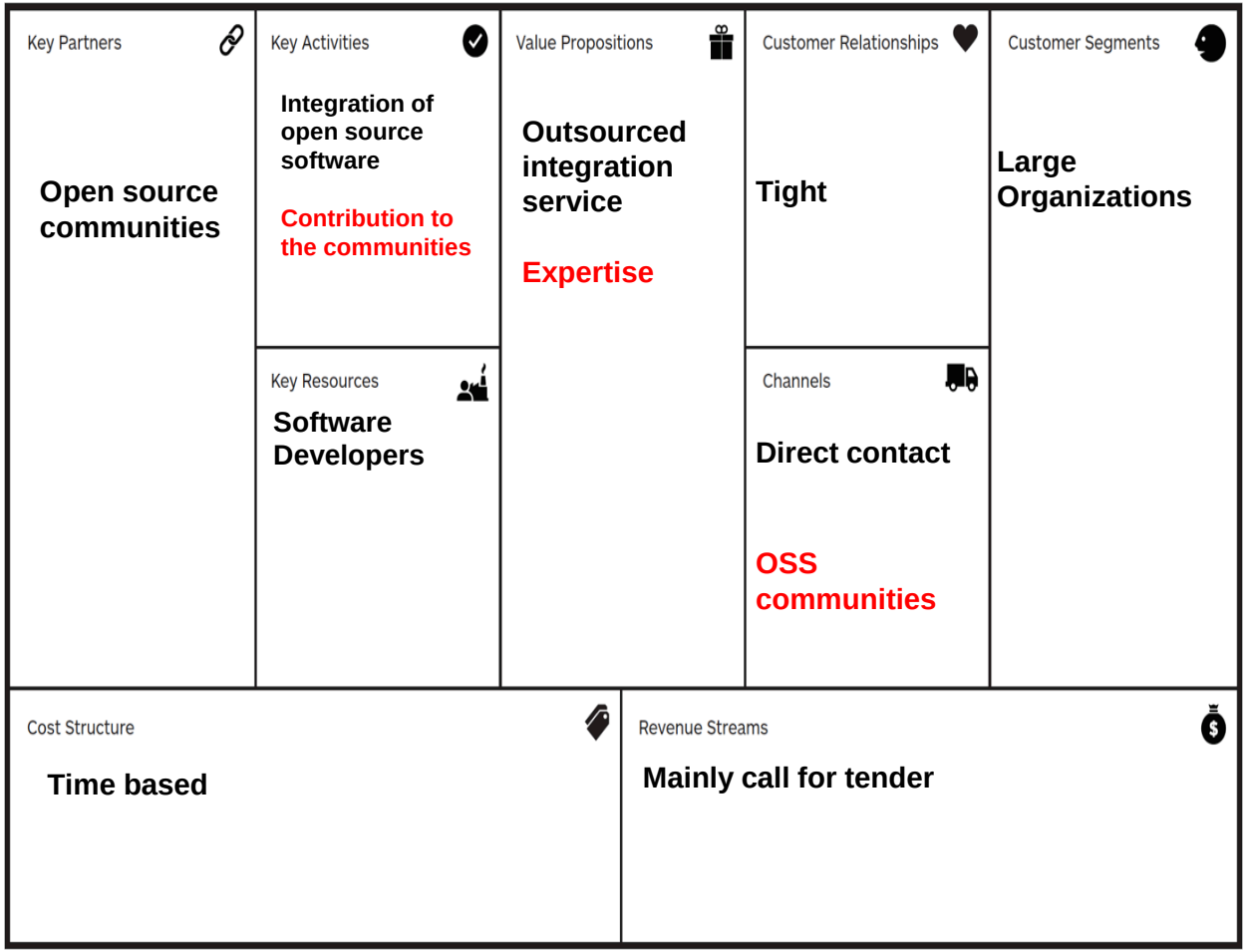

**Source: Patterns and practices for open source software success**
**https://opensource.com/business/13/8/oss-patterns-and-practices**

# More about open source – Project sustainability

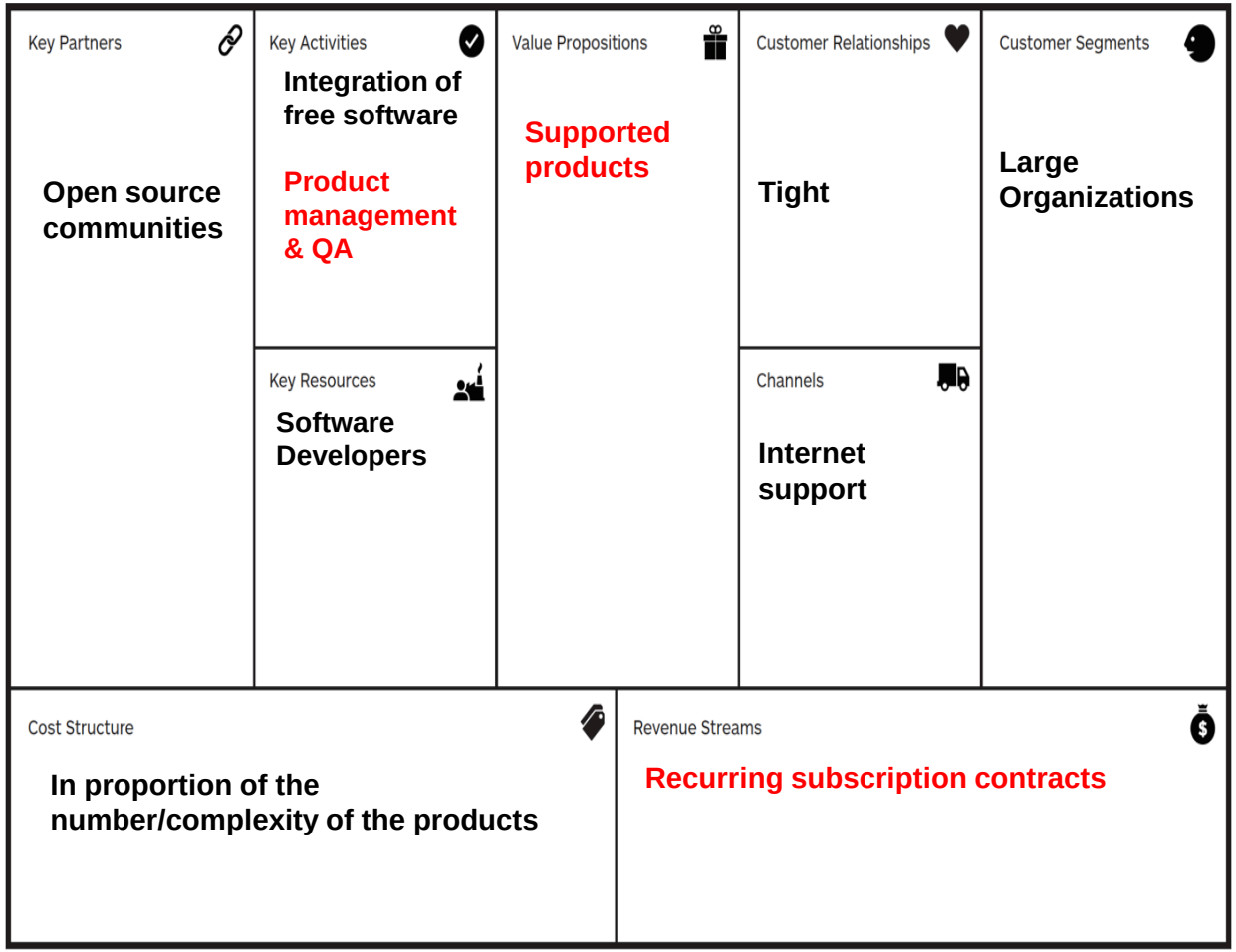
**Migration of EPF Composer**

- EPF Composer had not been upgraded for the past eight years. The development environment was based on previous versions of the Eclipse platform
- The migration of EPF composer was critical for allowing the integration in the AMASS Open Platform
- This was done in four successive steps over a period of 2 months. The progress was tracked on a public bug tracker: https://bugs.eclipse.org/bugs/show_bug.cgi?id=516608
- Muhammad Atif Javed proved that he is a good contributor to the EPF project and that he deserves to be elected as a, EPF committer
- The EPF project gets a new boost in interest

# More about open source – Pure Service Business model



# More about open source – Leveraged Service Business model



# Open Source is not a

# Open Source is an enabler

- A way to promote or establish standards
- A powerful marketing channel
- An ticket to collaboration

# Next steps

- Connect with developers at conferences like EclipseCon

- Publish more content on PolarSys
  - Promote OpenCert
  - Promote the AMASS Open Platform built with OpenCert, CHESS and Eclipse Process Framework

# Thank you for your attention!