



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

WP7: Community Building

2nd EAB Workshop Västerås, September 17, 2018



Task 7.1 Noteworthy Networking activities

Projects	Networking activities
<u>SafeCOP</u>	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. 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. AMASS Partners (UC3, Tecnalia) participate to the Task Force.
<u>CP-SETIS</u>	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. Connection through the participation of some partners to to both projects (AIT).
<u>ESPRESSO</u>	Swedish project aimed at increasing readiness to comply with ISO-26262. Collaboration of MDH with Scania. Reuse of safety cases.
<u>RobMoSys</u>	Presentation of AMASS to RobMoSys consortium. Considering the use of the AMASS open platform for certification of robots.
AQUAS	AQUAS: proposal of (some) the AMASS platform features to be exploited during the implementation of the co-engineering processes identified by AQUAS. Given talk to AQUAS people at City University of London about AMASS results.
RESSAC	Contacts taken with the RESSACE project team at IRT Saint Exupery with shared presentations about the two projects. RESSAC is about defining a new approach for avionics certification



Task 7.1: Networking and Coordination of EAB

- Establish a community of individuals and organizations
- Ensure the best industrial impact
- Coordinate the inputs and activities of the AMASS Advisory Board

Objectives



- Antonio Priore (Ultra Electronics CONTROLS)
- Javier Ibanez-Guzman (Renault)
- Miren Illarramendi (Mondragon Goi Eskola Polit.)
- Tim Kelly (U. York)
- Johnny Marques (Embraer)
- Anders Sandin (LFV)
- Laurent Fabre (Critical System Labs)
- Ganesh Pai (NASA)
- Markus Wallmyr (CrossControl AB)
- Timo Varkoi (Spinet)
- Marion Lepmets (SoftComply)
- Kurt Tschabuschnig (MAGNA STEYR Engineering AG & Co KG)
- Pascual Breton, Raquel Arriba (CAF)

13 Members



- First EAB workshop in September 2017
- EAB teleconference in May 2018
- EAB feedback and brainstorming
- Second EAB workshop planned in September 2018

Events





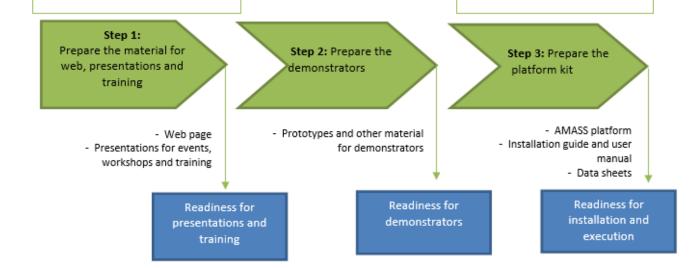
T7.2 Industrial Adoption Program – Phase 2

Roadmap for Industry/Policy Makers user groups

- D8.1 AMASS website and project collaboration platform
- D2.2 AMASS Reference Tool Architecture
- D3.2 Design of the AMASS tools and methods for architecture-driven assurance
- D4.2 Design of the AMASS tools and methods for multiconcern assurance
- D5.2 Design of the AMASS tools and methods for seamless interoperability
- D6.2 Design of the AMASS tools and methods for cross/intra-domain reuse

- D3.3 Prototype for architecture-driven assurance
- D4.3 Prototype for multiconcern assurance
- D5.3 Prototype for seamless interoperability
- D6.3 Prototype for cross/intra-domain reuse
- D1.4 AMASS Demonstrators

- D7.5 AMASS open source platform provisioning and website
- D3.4 Methodological guide for architecture-driven assurance
- D4.4 Methodological guide for multiconcern assurance
- D5.4 Methodological guide for seamless interoperability
- D6.4 Methodological guide for cross/intra-domain reuse
- D2.3 AMASS User guidance and methodological framework





T7.2 Identified results to promote

ltem nº	WP1 Result	Deliverables	Tools	Means	General Audience	Actions	Barriers to Entry
1	First Prototype analysis implementation	D.1.4	OpenCert, Papyrus	Training and demonstrations	Industry	Contact with different departments of TAS-E Explain the project and send information Demonstration Training Give access to the tools and documentation	Time and effort needed lack of awareness lack of interest
2	Data Acquisition related to Standards	D.1.2	-	Documentation & Information	Industry	Contact with different People and departments Obtain the information Summarize information Send Information	Time and effort needed lack of awareness

ltem nº	WP5 Result	Deliverables	Tools	Means	General Audience	Actions	Barriers to Entry
1	Evidence Management tool in OpenCert	D5.4, D5.5	Core Prototype and P1	Training and demonstrations	Industry	· ·	Need for acceptance of the use of Eclipse technologies
2	OSLC-KM approach for tool interoperability	D5.2, D5.4	Prototype P1	Training and demonstrations	Industry	Prepare some video, and next (1) uploaded to the AMASS website and the YouTube Channel, and (2) distribute the links to extenal parties (e.g. through LinkedIn)	Insufficient integration features for a company's specific toolchain
3	OSLC-based approaches for V&V tool integration	D5.2, D5.4	Prototype P1	Training and demonstrations	Industry		Insufficient integration features for a company's specific toolchain



T7.2 Results promotion strategy

Results to promote

AMASS Platform prototype P1

First Prototype Analysis Implementation

Data acquisition related standards

Contract-based design @ analysis

Evidence management tool

Assurance process management tool

Audiences

General audience

Industry

Specific audience

Internal partners

Companies interested in OpenCert

Barriers to entry

Time and effort needed

Lack of awareness

Lack of interest

Maturity of the approach

Impact on current practices

Insufficient integration with company's specific toolchain

Possible actions

Trainings and videos (see WP8)

Promote access to the tools and docs

Select few beta test companies

Provide demonstrations

Send explanation and information about the project to companies

Get feedbacks from users



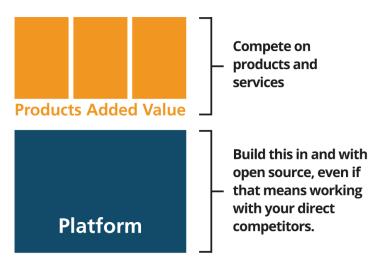
Task 7.3: Creation and Coordination of AMASS open source community

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

• Hosted at



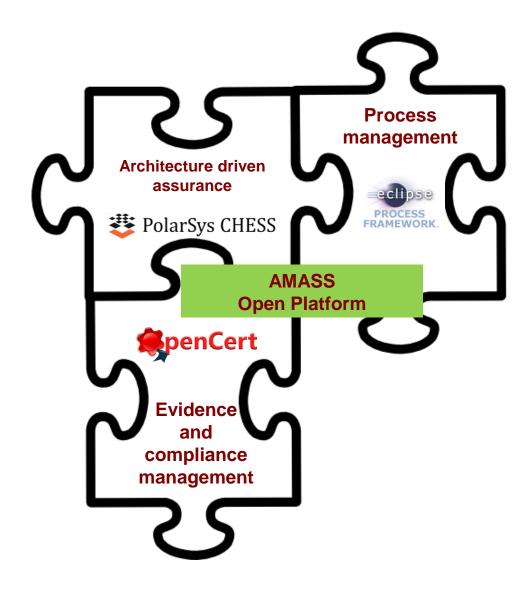
An
 eclipse Working Group



Organizations compete and collaborate in an open source ecosystem.

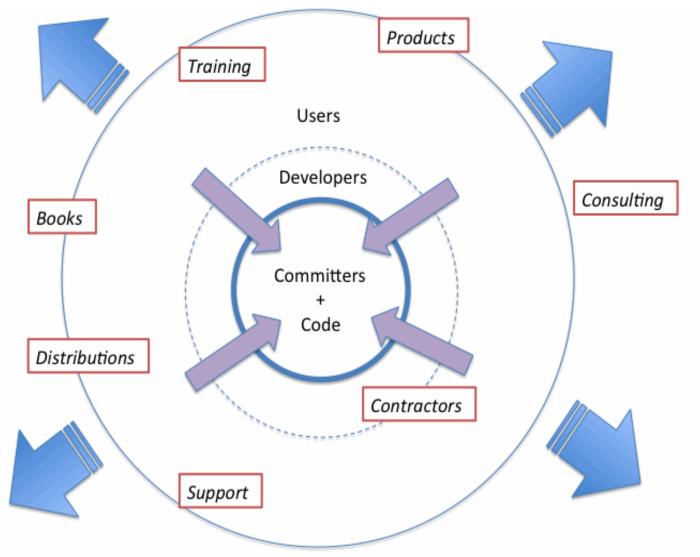


Task 7.3: The AMASS Open Source Platform





Task 7.3: Developing the open source ecosystem



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



Task 7.3: Main achievements

- New committers for CHESS
- New committers for OpenCert



- OpenCert finished its IP due diligences and moved all the development in public
- Collaboration with Eclipse Process
 Framework
- Commits on this project by individuals over the last three months.

61.8%





- MDH became committer of the project
- Presentation in plenary session at the upcoming EclipseCon France in Toulouse



Task 7.3: Promoting OpenCert and the AMASS open platform

The PolarSys OpenCert Tools Platform integrates contributions from different projects:

penCert 🐉 PolarSys CHESS

PolarSys OpenCert is an integrated and holistic solution for assurance and certification management of Cyber-

Physical Systems (CPS) spanning the largest safety and security-critical industrial markets, such as aerospace, space, railway, manufacturing, energy and health. The ultimate aim is to lower certification costs in face of rapidly

OpenCert

Community

News

News

More-

Friday, Jun 1, 2018

France 2018

Article by Gaël Blondelle, Eclipse

Foundation

website

Foundation

Meet AMASS at EclipseCon

The AMASS project will participate again to the Open Research lab booth at

New content on the OpenCert

EclipseCon France 2018 on June

Article by Gaël Blondelle, Eclipse

To accompany their new prototype, the AMASS partners updated the web site

Thursday, Mar 22, 2018

- Updates to the website
- GDPR compliant
- Also managed as an open source project
- Every project committer can update the website
 - Reviews by other committers before pushing to the website.



Achievements

- Successful collaboration with the Eclipse Process Framework (EPF) project
- Development of the open source community around CHESS and OpenCert
- Presentation at EclipseCon France
 - On the Open Research Labs booth
 - In plenary session (~250 attendees)
- Publication of an article in the Eclipse newsletter in July (250000 subscribers and >14% opening rate)



Next steps

- Participation to Certification Together 2019
 - Promotion of AMASS open platform to the industry
 - Ideas for other conferences?
- Promotion of AMASS results to potential users
 - Help us to talk to the right persons







Thank you for your attention!



Any questions (?)



