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

WP7: Community Building

2nd EAB Workshop
Västerås, September 17, 2018

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WP7 Leader
Eclipse Foundation Europe GmbH
## Task 7.1 Noteworthy Networking activities

<table>
<thead>
<tr>
<th>Projects</th>
<th>Networking activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SafeCOP</strong></td>
<td>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.</td>
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<tr>
<td><strong>OMG System Assurance Task Force</strong></td>
<td>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.</td>
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<tr>
<td><strong>CP-SETIS</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>ESPRESSO</strong></td>
<td>Swedish project aimed at increasing readiness to comply with ISO-26262. Collaboration of MDH with Scania. Reuse of safety cases.</td>
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<tr>
<td><strong>RobMoSys</strong></td>
<td>Presentation of AMASS to RobMoSys consortium. Considering the use of the AMASS open platform for certification of robots.</td>
</tr>
<tr>
<td><strong>AQUAS</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>RESSAC</strong></td>
<td>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</td>
</tr>
</tbody>
</table>
Task 7.1: Networking and Coordination of EAB

Objectives

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

13 Members

- 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)

Events

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

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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

- 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

**Step 1:** Prepare the material for web, presentations and training
- Web page
- Presentations for events, workshops and training

**Step 2:** Prepare the demonstrators
- Prototypes and other material for demonstrators

**Step 3:** Prepare the platform kit
- AMASS platform
  - Installation guide and user manual
  - Data sheets

Readiness for presentations and training
Readiness for demonstrators
Readiness for installation and execution
## T7.2 Identified results to promote

<table>
<thead>
<tr>
<th>Item nº</th>
<th>WP1 Result</th>
<th>Deliverables</th>
<th>Tools</th>
<th>Means</th>
<th>General Audience</th>
<th>Actions</th>
<th>Barriers to Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>First Prototype analysis implementation</td>
<td>D.1.4</td>
<td>OpenCert, Papyrus</td>
<td>Training and demonstrations</td>
<td>Industry</td>
<td>1. Contact with different departments of TAS-E 2. Explain the project and send information 3. Demonstration 4. Training 5. Give access to the tools and documentation</td>
<td>1. Time and effort needed 2. lack of awareness 3. lack of interest</td>
</tr>
<tr>
<td>2</td>
<td>Data Acquisition related to Standards</td>
<td>D.1.2</td>
<td>-</td>
<td>Documentation &amp; Information</td>
<td>Industry</td>
<td>1. Contact with different People and departments 2. Obtain the information 3. Summarize information 4. Send Information</td>
<td>1. Time and effort needed 2. lack of awareness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item nº</th>
<th>WP5 Result</th>
<th>Deliverables</th>
<th>Tools</th>
<th>Means</th>
<th>General Audience</th>
<th>Actions</th>
<th>Barriers to Entry</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Evidence Management tool in OpenCert</td>
<td>D5.4, D5.5</td>
<td>Core Prototype and P1</td>
<td>Training and demonstrations</td>
<td>Industry</td>
<td>Demonstration of OpenCert to third parties, e.g. at industry-targeted events</td>
<td>Need for acceptance of the use of Eclipse technologies</td>
</tr>
<tr>
<td>2</td>
<td>OSLC-KM approach for tool interoperability</td>
<td>D5.2, D5.4</td>
<td>Prototype P1</td>
<td>Training and demonstrations</td>
<td>Industry</td>
<td>Prepare some video, and next (1) uploaded to the AMASS website and the YouTube Channel, and (2) distribute the links to external parties (e.g. through LinkedIn)</td>
<td>Insufficient integration features for a company's specific toolchain</td>
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<tr>
<td>3</td>
<td>OSLC-based approaches for V&amp;V tool integration</td>
<td>D5.2, D5.4</td>
<td>Prototype P1</td>
<td>Training and demonstrations</td>
<td>Industry</td>
<td>Prepare some video, and next (1) uploaded to the AMASS website and the YouTube Channel, and (2) distribute the links to external parties (e.g. through LinkedIn)</td>
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## T7.2 Results promotion strategy

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<th><strong>Audiences</strong></th>
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<tr>
<td>AMASS Platform prototype P1</td>
<td><strong>General audience</strong></td>
</tr>
<tr>
<td>First Prototype Analysis Implementation</td>
<td>Industry</td>
</tr>
<tr>
<td>Data acquisition related standards</td>
<td><strong>Specific audience</strong></td>
</tr>
<tr>
<td>Contract-based design @ analysis</td>
<td>Internal partners</td>
</tr>
<tr>
<td>Evidence management tool</td>
<td>Companies interested in OpenCert</td>
</tr>
<tr>
<td>Assurance process management tool</td>
<td></td>
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</tbody>
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<tr>
<th><strong>Barriers to entry</strong></th>
<th><strong>Possible actions</strong></th>
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<tbody>
<tr>
<td>Time and effort needed</td>
<td>Trainings and videos (see WP8)</td>
</tr>
<tr>
<td>Lack of awareness</td>
<td>Promote access to the tools and docs</td>
</tr>
<tr>
<td>Lack of interest</td>
<td>Select few beta test companies</td>
</tr>
<tr>
<td>Maturity of the approach</td>
<td>Provide demonstrations</td>
</tr>
<tr>
<td>Impact on current practices</td>
<td>Send explanation and information about the project to companies</td>
</tr>
<tr>
<td>Insufficient integration with company’s specific toolchain</td>
<td>Get feedbacks from users</td>
</tr>
</tbody>
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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 Polarsys

- An Eclipse Working Group

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Task 7.3: The AMASS Open Source Platform

Architecture driven assurance

PolarSys CHESS

Evidence and compliance management

AMASS Open Platform

Process management

OpenCert
Task 7.3: Developing the open source ecosystem

Source: Patterns and practices for open source software success
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
  - Porting to the latest version of Eclipse
  - Collaboration with IBM
  - 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

- 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
WE NEED YOUR HELP

TO FIND ADOPTERS
Thank you for your attention!

Any questions