



AMASS

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

EAB Feedback / Brainstorming

Second EAB Workshop
Västerås, Sept 17, 2018

Huascar Espinoza, Gaël Blondelle
EAB Coordinators

Recommendations from 1st EAB WS & Actions Taken

Recommendation	Actions
<p>Take care on defining the objectives for <u>tool integration</u>. Be honest on to what extent we will provide tool wrappers and guidance of tool integration. How much would be the effort for such integrations?</p>	<ul style="list-style-type: none"> • We started by defining ad-hoc integration cases to understand the complexity and implications (Prototype “Core”) • We systematized some tool integration cases (Prototype “P1”) • Today, we described some concrete integration usage scenario
<p>Why to go for a unified process for <u>co-assurance</u> and be open to different kind of processes?... Combining safety and security analyses could be challenging for users, who traditionally maintain the assurance cases or analyses in a separate way</p>	<ul style="list-style-type: none"> • AMASS fosters the use of a combined co-assurance approach (FMVEA-based) • Time needed for separate safety & security engineering process is significantly reduced when applying the combined co-engineering process → we still need to provide evidence and understand if this is reasonable goal. • The AQUAS project will focus on an approach based on separate analysis techniques and communication paths
<p>Take care of explaining the extent to which <u>case studies</u> are connected with AMASS solutions</p>	<ul style="list-style-type: none"> • Case studies are being better connected to Solutions in WP1 documentation • Today we presented Usage Scenarios (Case Studies in the context of specific AMASS Solutions)
<p>Provide <u>guidelines</u> on how different companies would get benefit from AMASS and what they need to learn to understand AMASS usage... Provide user stories to understand by different stakeholders.... To provide a common vocabulary which can be used by different areas or domains</p>	<ul style="list-style-type: none"> • This is on-going work. • We are building these usage scenarios, wich connect goals and benchmarking for Case Studies+Solutions. • Benchmarking will be completed in the upcoming months. • We develop a global methodological document, connecting specific technical guidance. • Guidance Dashboards will be integrated in the AMASS platform.



1.- How usage scenarios / user stories could be improved to get impact in AMASS ecosystem users?

- Get feedback from industrial users. Case studies will already provide some measurable way to communicate the value of AMASS results.
- Clarify the starting point / assumptions for the usage scenarios, to clarify where it can be applied and the conditions to apply the proposed solutions.
- It would be interesting to find out how much support is needed in different type of companies
 - depending on the size of the company and complexity of systems being developed.
- Manage how to simplify the installing process and maintenance. This is important for the image and adoption of the tools.
- Develop one-pagers for usage scenarios, to market AMAS ecosystem. Select some representative set of usage scenarios to be promoted.

2.- How to improve the AMASS Guidance for users?

- **Guidance in the way of global workflow and dashboard is welcome by EAB members.**
- **Avoid the usage of everything in AMASS but to enable enactment of selected parts → How Dashboard would help to this?**
- **Customization of the global workflow → use experience from industrial partners on AMASS to identify how this customized workflows could look like.**
- **Dashboard by usage scenarios? By rephrasing the global workflow based on the scenarios?**
- **Short videos of real industry cases might help.**

Conceptual and Implementation approach

3.- Please provide any additional recommendation to the Conceptual and Implementation approach behind the AMASS platform

- Identify how AMASS could be used for a subset of a Project.
- Provide a definition of the perimeter of usage of the proposed tools.
- What are the key characteristics of a Project to apply AMASS solutions
- What is the support for keeping track of the difference between the planned process and the executed process.
- Our quantitative metrics for Goals could generate different numbers according to the SIL or security levels. Benchmarking should take into account these differences to measure improvements → We must put estimated improvements in context.
- FMVEA → who should manage this tool, considering it's hard that safety and security work together → The main goal are safety risks, security is contributing to understand any security risk that compromises safety. → Ask question to Schneider (AMASS partner)
- In medical device industry the companies are required to validate their software tools. For that, tool developers generally assist them by providing a validation package/validation protocols. Is AMASS platform also developing such a package to ease users to validate it? Medical device companies rarely use a platform that developers cannot provide the validation package of.
 - This also applies for most of safety-critical domains

4.- Can you identify industry usage opportunities of specific AMASS features?

- We must look for early adopters.
- We must identify a path for bringing the solutions to industry. What are the kind of business models (stakeholders, business case, etc) that could apply to AMASS.
- Identify company issues to use AMASS selling points (e.g. traceability, tool integration).
- Open source versus security issues?
- Many established companies might struggle to go to open-source tools so perhaps a clear explanation of benefits they would have by using these tools while ensuring the compliance to regulatory requirements might help them.

5.- Is the AMASS community building, exploitation and dissemination strategies sound? What is missing?

- **Plans of Sustainability? How do we ensure the results will be maintained?**
- **How to promote AMASS in America?**
 - **Conferences (reliability)**
 - **ISSC, RAMS conferences (publishes in IEEE)**
 - **INCOSE, IEEE**
- **Standardization**
 - **Standards in tools (Timo will provide more info)**