MegaM@Rt2 on the road

Brussels, 10 June 2018

MegaM@Rt2 is a project that aims at offering a development framework for scalable models to easily facilitate the software design and runtime validation in complex systems, especially focused on the embedded domain.

MegaM@Rt2 seeks the compliance of a range of objectives in terms of impact. These objectives are many and target the increase of mainly productivity and quality in development systems as much as a shorter time to market in complex systems. Furthermore, it also aims at reinforcing the leadership and European scientific & technological competitiveness of designing in complex scenarios. Finally and very related to competitiveness, it has the objective of increasing the power of European companies regarding the design and integration of complex systems in order to get a reduction of design costs, maintenance and time to market.

Since the beginning of the Project, the team of MegaM@Rt2 has been pretty involved about the fulfillment of the objectives because they intend to turn the existing solutions across the market, within the software engineering market and also within the scientific community. The MegaM@Rt2 solution aims at improving the design and testing of systems in accordance to the feedback obtained in execution phase. Software is being designed and some measurements can be obtained while a simulation is running. It can be seen as a kind of devops for embedded systems, combining the use of both runtime and design tools.

The target of the MegaM@Rt2 solution is all those engineers, companies that develop software solutions and software solutions providers within an embedded market (communication routers, logistics, industry devices, among many others).

At this stage, MegaM@Rt2 has analyzed the requirements from its nine case studies in avionics, transportation, retail, rails, automotive or telecom, and has depicted the specification of components and architecture by using methodological software design tools.

In order to boost collaboration between partners and launching the experimentations in the case studies, the MegaM@Rt2 project organized an internal hackathon during the last project meeting held in Helsinki in March this year. Eight challenges were proposed by case study providers and then parallel working groups were set up during one day meeting, results were later presented to
the overall project members. According to all the participants, the meetings were very useful to establish the basis of the work in each one of the validation scenarios in MegaM@Rt2.

The case studies have also started baseline experiments to get some initial measures of the identified key performance indicators (KPIs). These measures will be repeated with the upgraded version of tools and technologies to assess the evolution of the KPIs and produce evidences about the benefits of MegaM@Rt2 with respect to the life before the project. These experiments are also used to refine the initial requirements as a continuous activity.

**Some more tips...**

- The initial release of MegaM@Rt2 tool sets (for the Design Tool Set and the Runtime Tool Set) will be available in September 2018
- MegaM@Rt2 will be at ECSEL Symposium in Brussels on 19-20 June 2018 [https://events-ecsel.eu/symposium-2018](https://events-ecsel.eu/symposium-2018)
- Ongoing contributions to the MARTE and SysML standards from OMG

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