

Currently, you will find several ECUs, which are Electronic Control Units in the car.

90% of all innovations in the automotive industry are by now embedded systems and particularly embedded software driven... the real-time behavior of embedded software is as important as the functional side, and I think a good example is your airbag system in a car. Imagine your software does the right calculation but a few milliseconds too late, you are going to be dead if it's too late.

If we look at the system of systems now, the complexity is even exploding... if you look at the amount of time and money being spent for the development of these systems, if you can imagine that reducing time and cost by two-thirds has a massive impact on the cost situation of our customers.

IBM and INCHRON will provide the solutions to master these challenges.

We first got in touch with Hella through a project at a major German OEM. The project was a Driver Assistance System where radar sensors and camera sensors have an impact on the brakes, on the acceleration of the car, so - very important safety features of the vehicle.

We started working with the OEM and with Hella on designing a complete system that would meet the performance needs of the OEM and, at the end of the day, of the customers of the OEM.

It's important to find a tool which is easy to integrate towards the other tools and this makes more sense to have an outstanding single tool and you always have to see the whole picture for the development instead finding optimal solutions at specific tasks.

Hella was using our tools for the dynamic real-time aspects of the development. Rhapsody is a UML and SysML tool that is focused on the functional behavior, on modeling the functional behavior of an embedded system.

It was a quite easy decision to go to UML designs and then we did a survey on different UML tools and finally, it was Rhapsody, which made it and we took the strategic decision for Hella to use Rhapsody as the design tool for our systems architecture and for software architecture.

Bringing these tools together, integrating these tools enabled Hella to reduce time and cost in the development process.

We have several IBM consultants working directly in our teams. They are working directly with the projects to bring improvement to the project especially concerning the IBM tools, how to use them, how to extend them. IBM and INCHRON tools were the door opener for us to get this business.

And if we look into the future, we are completely confident that this combined solution will provide a lot of value to our joint customers. And by doing that, we will provide value to IBM and to INCHRON as well.