

Weissach think tank: Innovation accelerator

13/08/2014 Key functions of the vehicles are defined by hardware and software. Porsche now combines all sub-sections of electrical and electronics development under one roof: in the Electronics Integration Centre.

Evolution in electronics development is marching on at a rapid pace. Today, for instance, there are 6,000 functions in a Porsche noticeable to the driver. 50 to 80 interlinked controllers guarantee that the vehicles function perfectly. It is in the process of integrating these functions that the developers' core expertise lies.

As a central facility in Weissach, the Electronics Integration Centre (Elektronik-Integrationszentrum = EIZ) combines all sub-sections of electrical and electronics development under one roof — and brings them together where necessary with other disciplines. Working intelligently at the cutting edge of technology is what the people here live, breathe and experience.

Previously the individual electrical and electronics departments were spread across twelve different

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locations in Weissach. This spread, which had evolved over time, made communication between the individual departments more difficult and with the constantly growing complexity of vehicle functions proved to be an obstacle to speedy development.

By bringing everything together now within the EIZ the efficiency of the development process is being greatly enhanced. The distances between the developers have been made much shorter. The 570 staff work no more than a maximum of 30 metres apart. The architecture of the EIZ building, for instance, is purposefully geared to the interaction of engineers and developers.

One characteristic feature is the building's interior, which is laid out in a V-shape. The V-model reflects the intelligent development process in the arrangement of space. From top to bottom – from the idea on a piece of paper or computer screen all the way to the ready-to-use component – is how development work in the EIZ is structured. The process flow is perfectly interlinked.

Market place for innovation

The individual steps of the process are built up as follows: specification and implementation of subfunctions on the upper floors, testing and qualifying under racetrack conditions, being a task cutting across all areas, on the middle floor and on the ground floor work on the individual components in the workshops. The sound lab, too, is located next door. The audio and acoustics experts' communication with their colleagues from the other specialist departments achieves as a result an audio experience with concert hall quality.

On the ground-floor level the engineers also swap ideas with the mechanicians and external suppliers. The so-called 'Integration Market Place' is a spot where the electrical, electronics and software experts work together. Here, in discussion with all other vehicle experts, they efficiently clarify the individual projects' task specifications. The greatest possible transparency and communication makes the EIZ a genuine accelerator of innovation.

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