CAB Concept Cluster

The agricultural machinery cab of the future as a modular system

Serial-tested modularity, x2x-usability and Smart Farming ready – Cluster founded by OEM suppliers, TU Dresden University of Technology and partners from practice and associations

The CAB Concept Cluster is a platform founded in 2014 by experienced OEM suppliers, TU Dresden University of Technology, various partners from practice and associations. The Cluster focuses on manufacturers of construction plant and machinery, agricultural machinery and industrial forklift trucks, with the objective of pooling innovations close-to-production in joint projects to showcase the potential of efficient systems integration. With the multiple award-winning Genius CAB presented at the bauma 2016 trade fair, the Cluster showed how innovation and added customer value can be bundled on a customer-neutral platform using a wheel loader cab. At Agritechnica 2017, the Cluster is presenting its latest project, the Smart CAB.

The Cluster will have its own separate stand for the first time at Agritechnica and can be found in Hall 17, Stand D 53. The main attraction on the Cluster stand will be the Smart CAB and its innovations. The stand will be staffed by all the Cluster partners throughout the fair, so that visitors will have the opportunity to find out more from all the partners.

The Smart CAB in detail

At Agritechnica, taking a multifunctional cab for self-propelled vehicles such as harvesters and field sprayers as an example, the Cluster is demonstrating what is possible today and in the future. "On the one hand, the Cluster partners want to present innovations that reflect future demands and expectations of the market and generate high levels of customer benefit," says Mathias Berger, Sales Director Agriculture of Robert Bosch GmbH. "On the other hand, users are able to choose precisely those elements for their project that are suited to their needs."

Modular system with flexible combination options

A key goal of many cab projects is to reduce the time and cost involved in development. That is why Smart CAB was designed as a modular system with flexible combination options. Thanks to the consistently serial-tested modularity, completely new developments, regardless of whether they concern the matrix light, the operator system or the steel frame, have now been made redundant.

Another crucial issue in the agricultural engineering industry is future viability regarding the integration of new components. Given its high-performance body computer that includes CAN, LIN, analog and digital interfaces, the x2x-Usability of the Smart CAB allows flexible expansion. Examples of various allocated and interconnected functions will be on display at Agritechnica. In these complex surroundings, the user interface plays a vital role in facilitating communication between the operator and the machine and other components.

Besides the multi-function armrest on the right with its controls and the multi-function armrest on the left with an integrated mini wheel, the well-structured design of the Smart Cab's HMI system includes two touch displays presenting all the key parameters. The Operator System thus ensures safe navigation in every type of work situation.

In Smart Farming applications, the focus is on profitability and the Smart CAB offers various features supporting this. Via a separate feature store, OEMs and vehicle operators are able to set up their own individual smart farming functions that are loaded directly into the machine. This can generate added value for existing systems or expand the functionality when used in combination with a new implement. It also makes profitable data sharing possible. Smart controls are installed to increase productivity and to reduce sources of error, facilitating handling of all available functions.

"Looking into the future always means playing with ideas. The Smart CAB bundles ideas that clearly benefit users," concludes Fritz Schadeck, Vice President at Fritzmeier Cabs. "We are going to show these ideas at Agritechnica 2017 like a firework of innovations, while still focusing on vital aspects such as safety or driver comfort."

The members of the CAB Concept Cluster are: Aurora, Robert Bosch GmbH, Fritzmeier-Gruppe, Grammer, Hella, Hydac, Mekra Lang, S.M.A., Lumod, TU Dresden University of Technology, AEF (Agricultural Industry Electronics Foundation), DEULA (Federal Association of German Training Centers for Agricultural Engineering) and DLG with the supplier platform Systems & Components as hosting partner.
www.cabconceptcluster.com
Hall 17, Stand D53

Extensive systems integration and a design concept enabling individual adaptations at any time make the Smart CAB an ideal playing field for designing new machines.