

High-Tech Cab For OEMs Serving The Off-Highway Industry

The 'Cab Concept Cluster' creates a customer-independent innovation platform, which cross-connects innovative solutions presented by reputable manufacturers.



'Genius Cab'



In December 2016, the members of the newly-formed "Cab Concept Cluster" met at the Fritzmeier company headquarters in Großhelfendorf, close to Munich.

The aim is to make very clear to the OEMs of the construction machinery industry and others how great the potential of efficient system integration really is.

The **Genius Cab** has been nominated for the bauma Innovation Award in the 'Design' category.

The cabin is the brainchild of the newly formed 'Concept Cab Cluster' (CCC), a network of well-known OEM suppliers and reputable scientists from the sector, and will be presented to the trade public for the first

time at the Bauma trade fair in April 2016.

The Cluster's members include the following companies: Aurora, Bosch, Fritzmeier, Grammer, Hella, Hydac, Mekra Lang, SavvyTelematic Systems AG, S.M.A., design agency Lumod, the Technical University (TU) of Dresden and the German Association of the Construction Industry, Environmental Technology and Mechanical Engineering ('VDBUM'), and Max Bögl.

The aim is to make clear the enormous potential of efficient system integration to OEMs in the construction



machinery industry and in agricultural engineering as well as to producers of industrial trucks and forklifts.

Accordingly, the Genius Cab boasts a range of futuristic features from the Cluster partners, which set standards in terms of safety, operability, driver comfort, maintenance and design.

Safety, comfort and ergonomics for the operators

The guiding principle of 'human-centred design' places the focus on a working place that is as ergonomic as possible through a premium, generously sized interior.

Consistent system integration and a relentless focus on the operator increases workplace safety and boosts efficiency.

"The key words here are information management and clarity. Accordingly, there is still only one central touch monitor. The emotional appeal to users follows the design approach to the trend of 'cocooning' and thus accommodates people's need for well-being and to feel protected",

commented Wanja S. Steinmaier, managing director of design agency Lumod, which - together with TU Dresden - was responsible for the cabin's design.

This approach has been maintained on the exterior: inspired by a cut diamond framed in a strong setting; the additionally modular Exo-ROPS/FOPS supports; together with the plastic cladding elements; cabin's glass cab with faceted window surfaces.



These provide plenty of visibility and reduce any undesired distortion effect through their specific angular alignment. Emphasis is also placed on system integration in the exterior design.

The protection rails positioned in

the blind spot of the A-pillars not only function as a part of the ROP cage but also act as a handrail, cable conduit and signature element through their LED lighting, and support the cooling of the integrated work light LEDs.

These are able to exclude specific sections of the illumination, to avoid dazzling effects. In the case of a wheel loader for example, the raised scoop can be faded down and the light directed past it.

The unmistakable silhouette of the Genius Cab is a graphical representation of its innovative power and emphasizes its brand-building character. This potential is further increased by the light lines that give it shape, and which can be adapted on a brand-specific basis.

Therefore, integrated into the "Genius Cab" can be found innovative features coming out of the cluster partners - specialists who wish to set benchmarks on the international markets when it comes to safety, operability, driver comfort, maintenance and design.

Engineering expert Professor Jens Krzywinski from the Technical University of Dresden says:

"Every single innovation built into the Genius Cab meets specific user requirements and boasts a technology which is virtually ready for series production,"

"That means OEMs are able to start definite series implementation with risks and costs that can be clearly managed and monitored. The commercial potential for customers and manufacturers is quite considerable."

"The fundamental and overriding innovation in all this is the approach to consider the exterior and interior of the cab as a unity and to design it accordingly. The project work in this respect, work which has also involved the hands-on experience of users, is exemplary in its depth and breadth."

For more information:

- [The Concept Cab](#)