OUR CO-DESIGN APPROACH

TO BUILD XR SOLUTIONS FOR OFF-HIGHWAY MACHINERY
FOR SAFE, EFFECTIVE, RESPONSIBLE AND MEANINGFUL WORK

1 ANALYSIS

We must gain a deep understanding of the machine operators, stakeholders and their context-of-use. We use contextual inquiries, interviews, eye-tracking and online surveys to learn about how the operators handle their machines and which dangers and critical situations may arise at work.

2 CO-DESIGN

We use a scenario-based design approach to create realistic usage scenarios for XR technology in the respective use-cases. Machine operators and other stakeholders will participate in the writing, incorporating their ideas and concerns regarding information availability, visualization and interaction. Meanwhile, the technical partners will provide perspectives on how the ideas could be implemented.

3 EXPERIENCE PROTOTYPING

XR interaction approaches will be tested as quickly as possible using iterative prototyping.
Interaction prototyping addresses not only the machine that has to be controlled but is also intensively connected to the use case or task that has to be carried out.

4 CO-EVALUATION

In this final phase, concepts and prototypes will be tested by real end-users and stakeholders with quantitative and qualitative methods to assess the acceptability, usability and user experience as well as ethical-, privacy- and security concerns of the solutions.

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Funded by the European Union

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