DSC 2018 EUROPE VR

Driving Simulation & Virtual Reality Conference & Exhibition

ANSYS

The benefits of VR simulation for HMI development

Lionel Bennes – Product Owner VRXPERIENCE HMI

Palais des congrès - Antibes

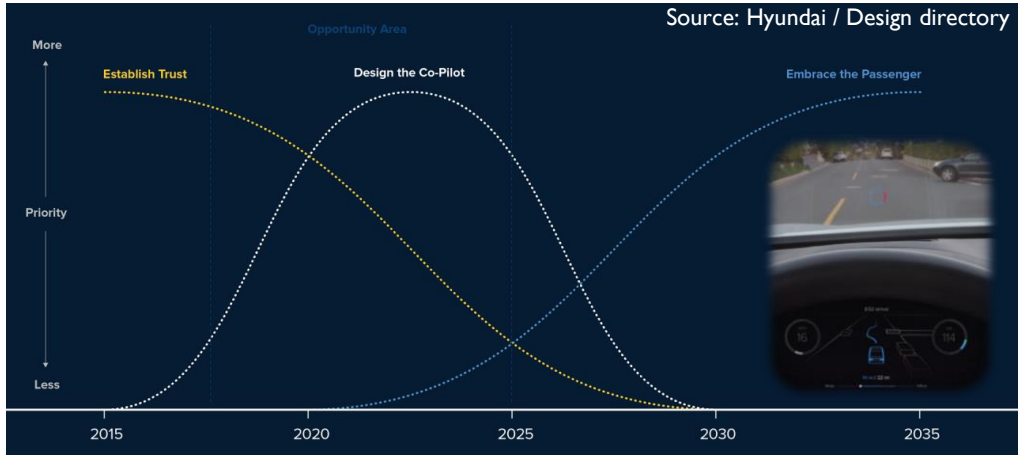
September 5, 2018

Challenges for automotive HMI

- Ensure high quality user experience and branding through in-vehicle HMI
  - Put the customer at the center of the development process,
  - Keep up with rapidly evolving digital technologies

- Ensure safety and prevent driver's distraction despite the increasing complexity of systems.

- Accompany the AD revolution
  - Address the human in the autonomous vehicle: user experience, acceptance & trust,
  - Take over procedures and situation awareness.



VRXPERIENCE HMI solution from ANSYS

- Fully virtual accurate prototype based on direct CAD import
- Scalable physically based rendering from rasterization to raytracing
- Fully interactive HMI simulation
  - Natural hand interaction with tactile displays and hard buttons.
  - Dynamic display content (HTML) reacting to interaction
  - HUD simulation for both optical and content assessment
- Experience in dynamic driving simulation
  - Customize & control traffic and vehicle dynamic from 3rd party software
- Compatible with a majority of VR hardware

Benefits

- Foster innovation and improve HMI design and procedures:
  - Validate integrated HMI design without physical prototype
  - Bring HMI designers in the driver's seat
  - Explore new HMI concepts faster
- Better match customer's expectations:
  - Accurate representation of car interior style and architecture for customer clinic
  - Capitalize user feedback early in the process
- Put the driver in the loop:
  - Easily explore driving situations
  - Assess safety, distraction & user experience