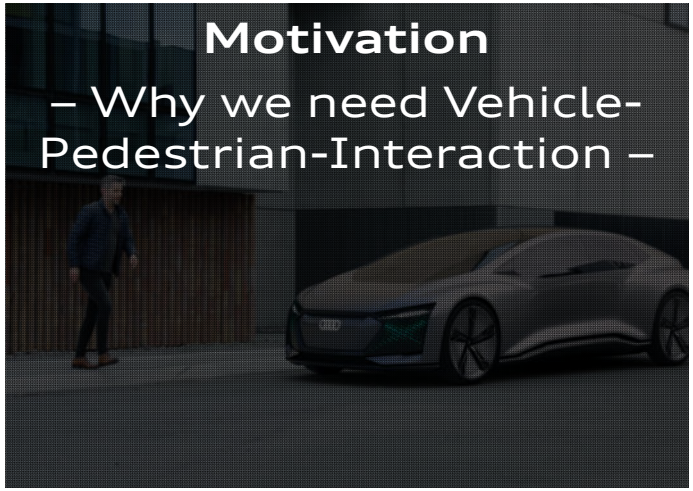
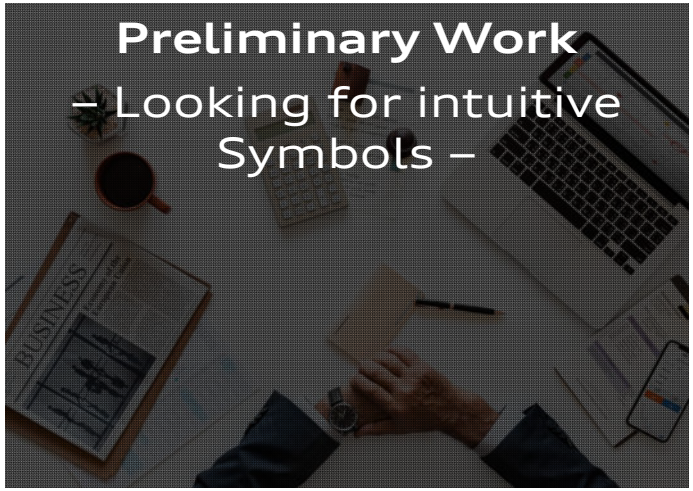
Assistance System for Vehicle-Pedestrian-Interaction

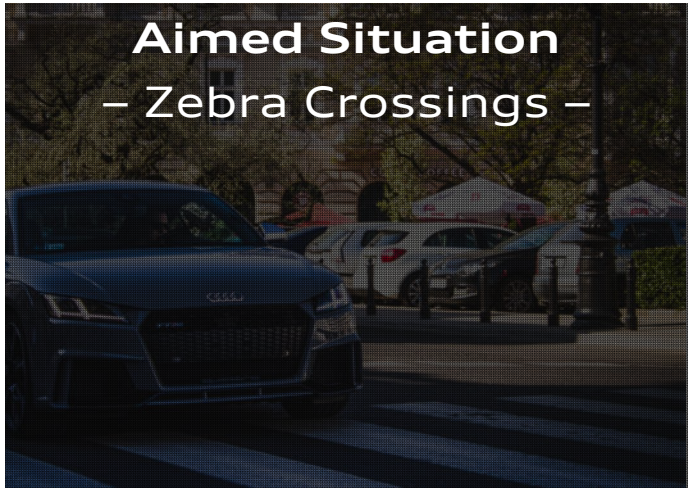
Deep Learning and Driver Intention Prediction

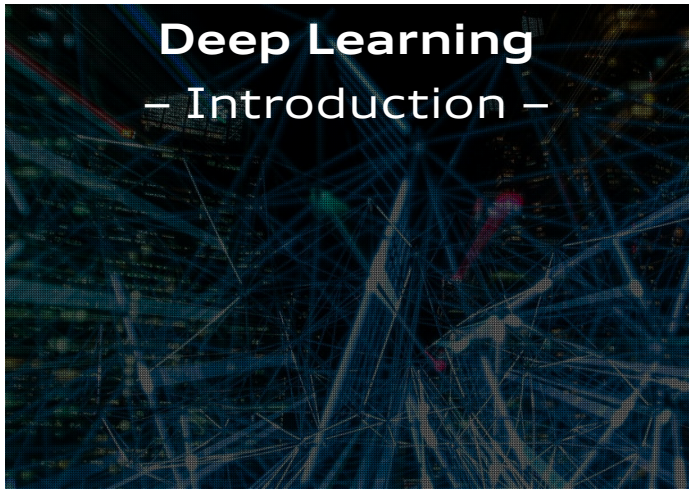
Johannes RESCHKE, AUDI AG

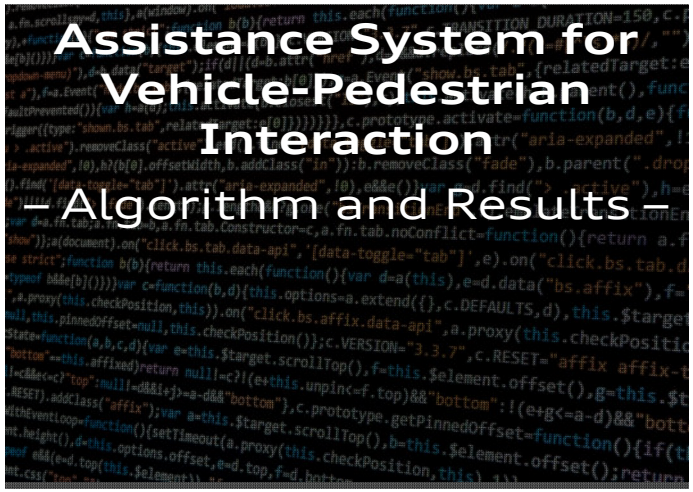
Agenda

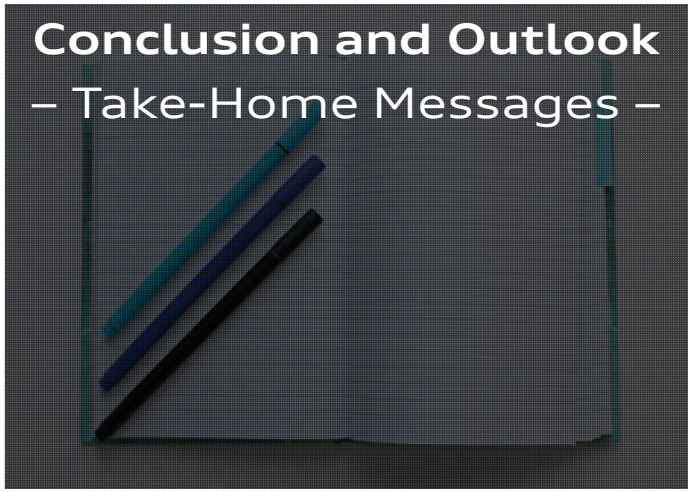

Motivation
– Why we need Vehicle-Pedestrian-Interaction –


Preliminary Work
– Looking for intuitive Symbols –


Aimed Situation
– Zebra Crossings –


Deep Learning
– Introduction –


Assistance System for Vehicle-Pedestrian Interaction
– Algorithm and Results –

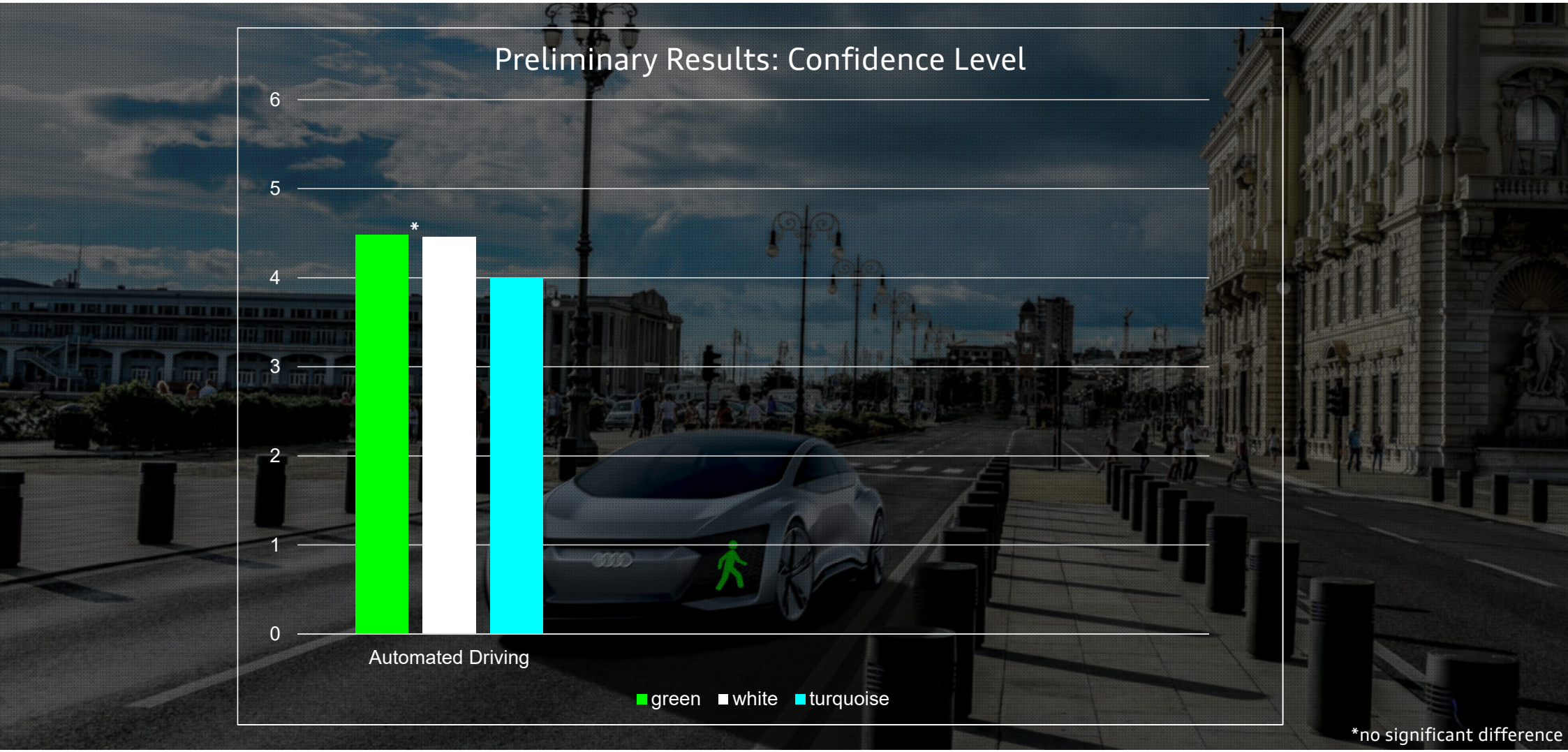

Conclusion and Outlook
– Take-Home Messages –

Preliminary Work
Looking for Intuitive Symbols

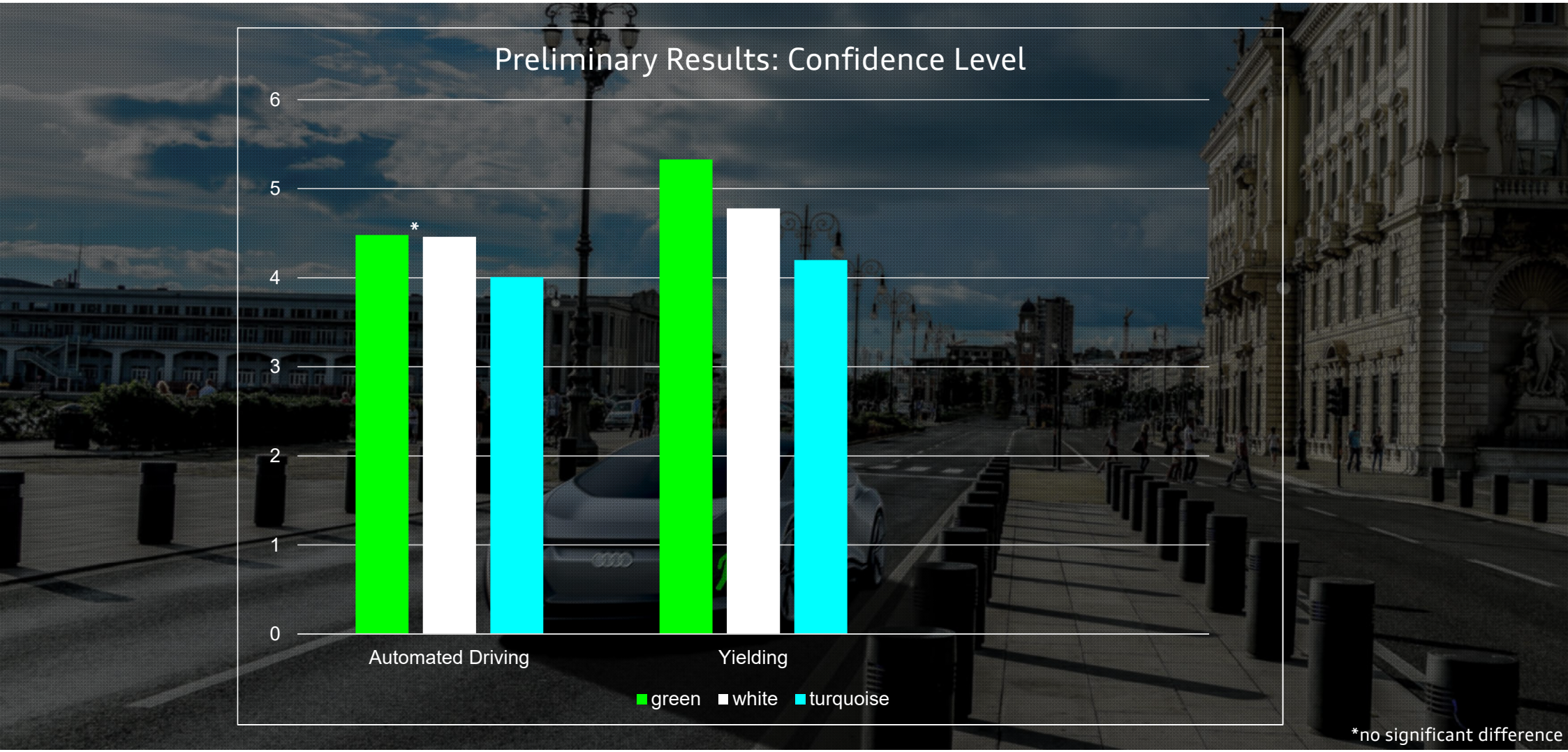
- 3 Situations
- 6 Colors
- 9 Symbols
- 709 Participants

Preliminary Work
Looking for Intuitive Symbols

Preliminary Work
Looking for Intuitive Symbols

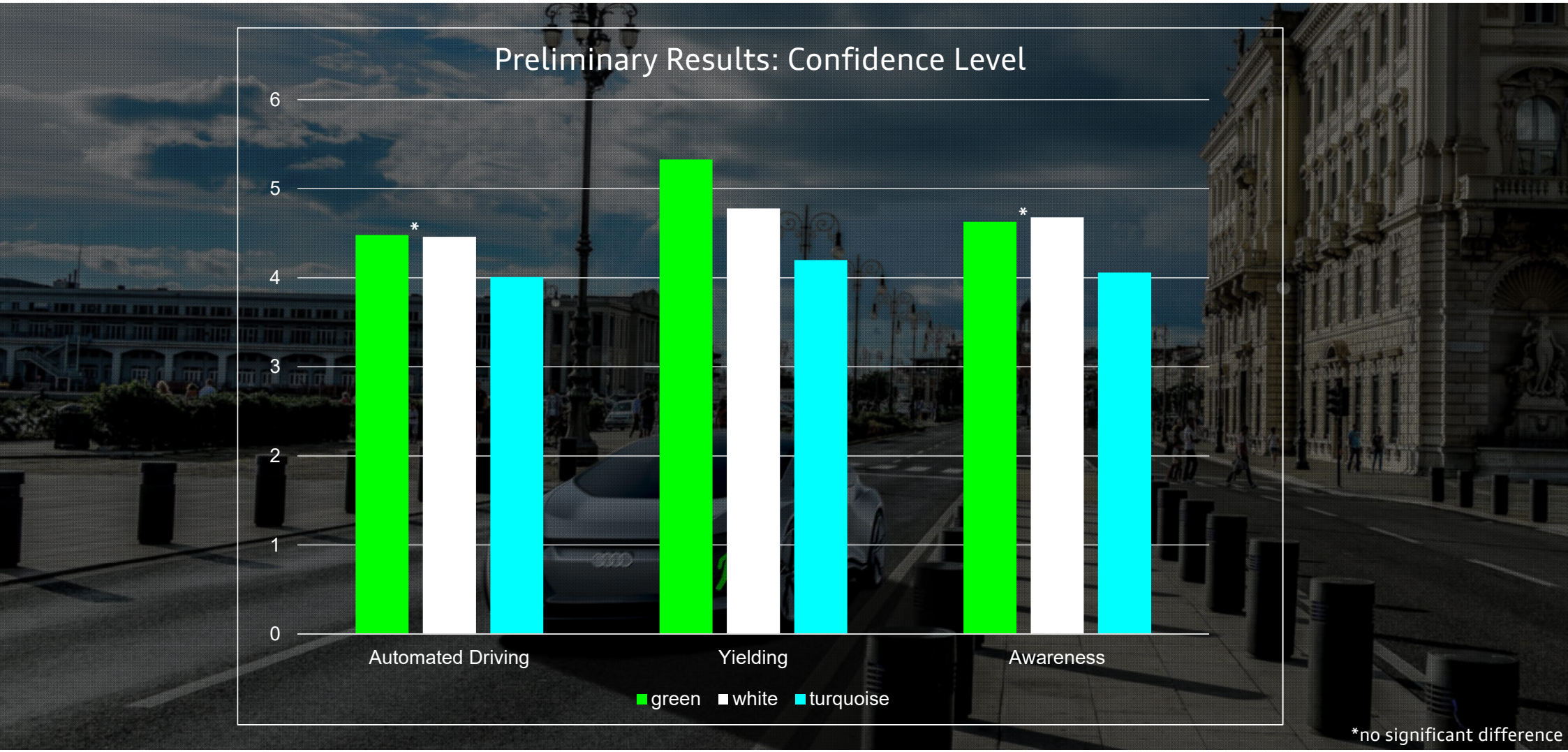


Preliminary Work
Looking for Intuitive Symbols



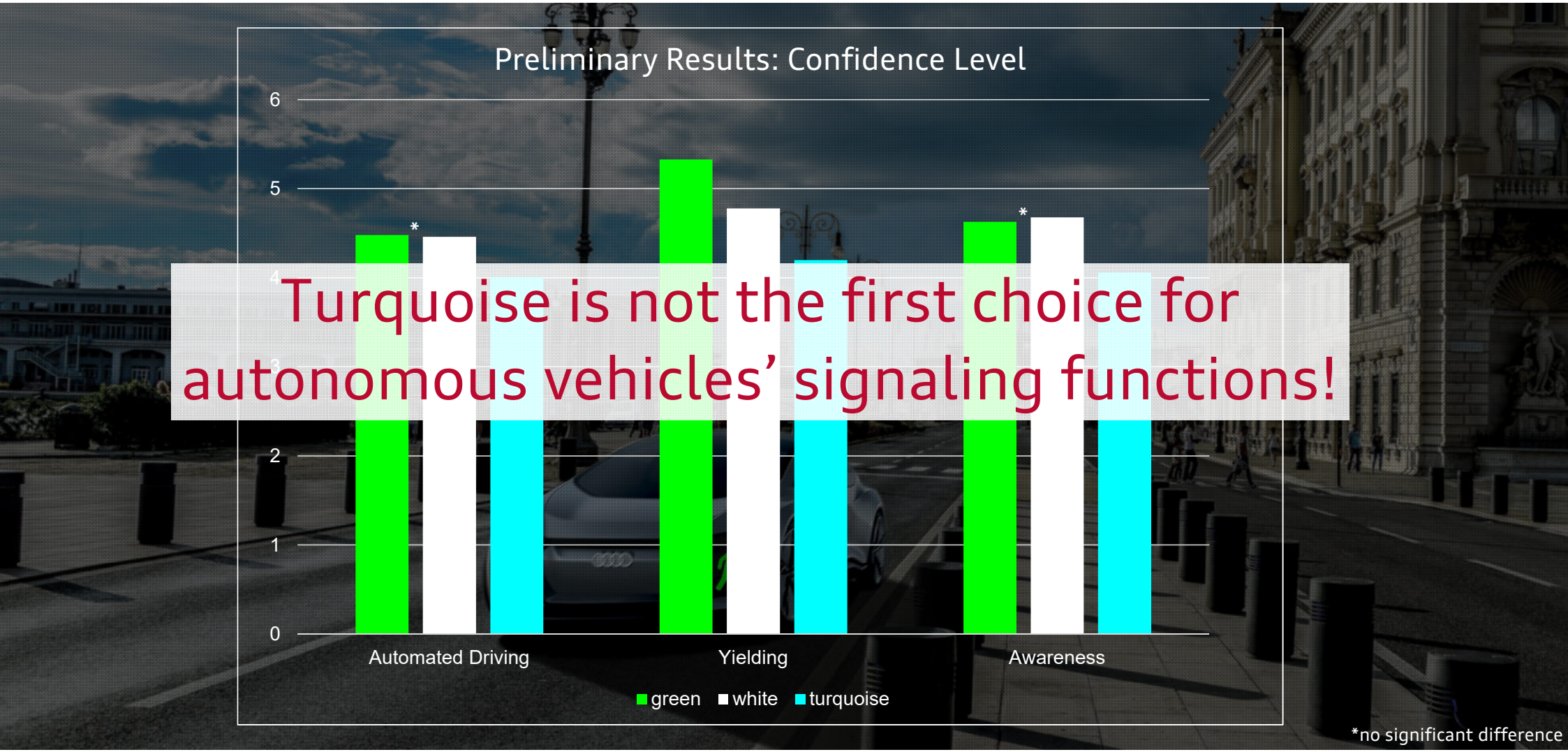
*no significant difference

Preliminary Work
Looking for Intuitive Symbols



*no significant difference

Preliminary Work
Looking for Intuitive Symbols



Conclusion and Outlook
Take-Home Messages

Symbols need to be learned

Turquoise is not the first choice of colors

Introducing Symbols in manual Driving Mode


Thank you