

## **ITU-FGVM Workshop**

# **VM content minimizing distraction and maximizing user experience**

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# User Desires for Vehicular Multimedia to Maximize UX

## Connected

The user wants to stay in touch and have access



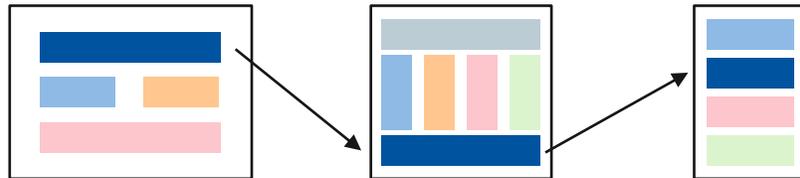
## Seamless

The user wants to resume where he left off



## Intuitive

Users want interactions to feel natural



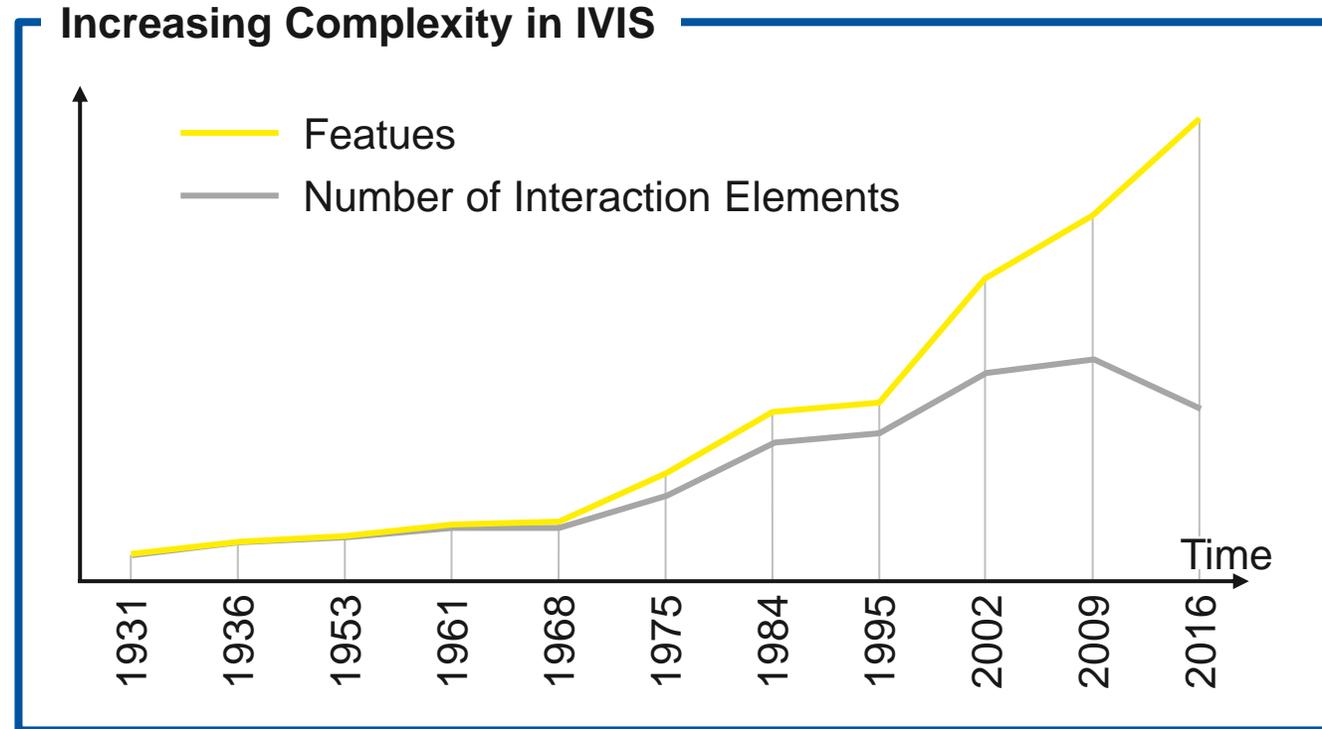
Interface behaves contrary to expectations

## Safe

Users want fast, efficient and effective interactions



# Adaptivity as a Solution for Vehicular Multimedia



customers expects high level of functionality



more features = more distraction potential

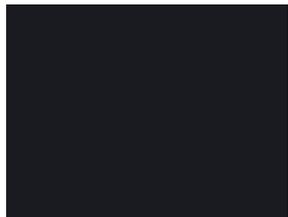


Adaptivity as the key to decrease complexity

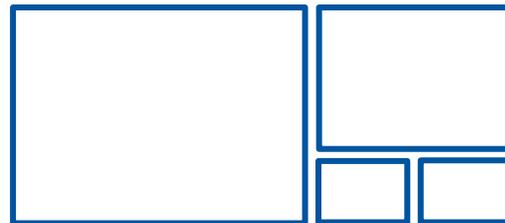
# Levers of Adaptivity in Vehicular Multimedia



Color



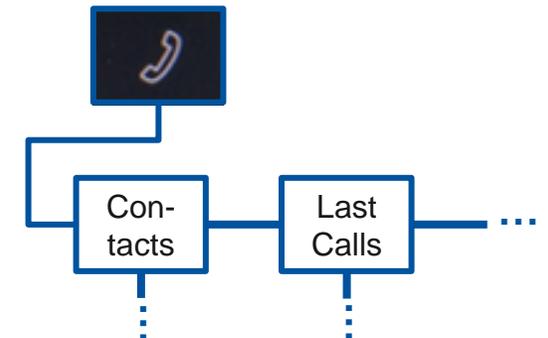
Layout



Content



Structure



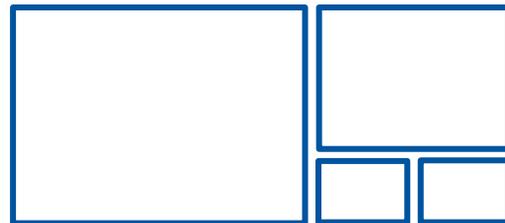
# Levers of Adaptivity in Vehicular Multimedia



## Color

- adaptive color-coding in regard to context information e.g. dark mode
- Mostly consistent

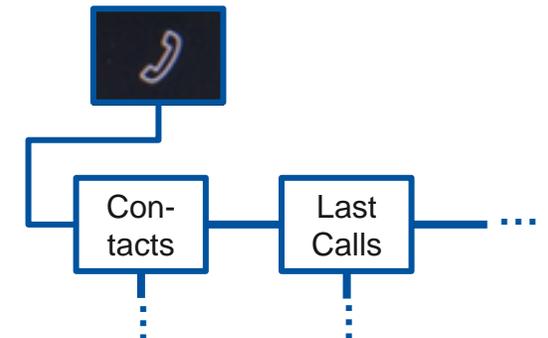
## Layout



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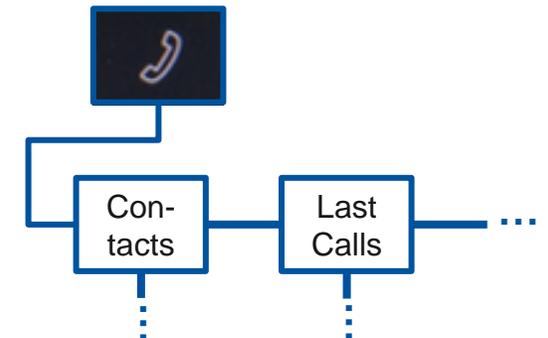
## Layout

- Adaptive layouts e.g. adaptive to elderly drivers with bigger icons
- Mostly consistent

## Content



## Structure



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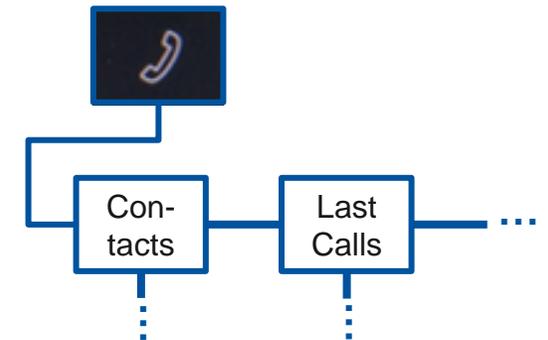
## Layout

- Adaptive layouts e.g. adaptive to elderly drivers with bigger icons
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## Content

- Adaptive content is given a clear framework and **real estate**
- **Learning** about individual user interactions is key in specifying the right content

## Structure



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## Structure

- Simplify interaction by creating intelligent **shortcuts**
- Adaptive content based on **contextual** information

# Let's Look into Other Industries: Siri API (1)



## Donation system that utilizes:

- Interaction
- User Activity



## Adaptive to:

- Time of day
- Location
- Type of motion (walking, running or driving)
- Screen time

# Dedicated Real Estate to Display Adaptive Content



# First Interfaces with Adaptive Content Already on the Market

## Navigation modules

EQ 14:37  
68 km  
79 %

2 km  
Quai du Mont Blanc

Personal profile



Multi-seat sharing panel

## Entertainment module

Beginning with us  
Invers



Phone



Deep Workout  
Massage

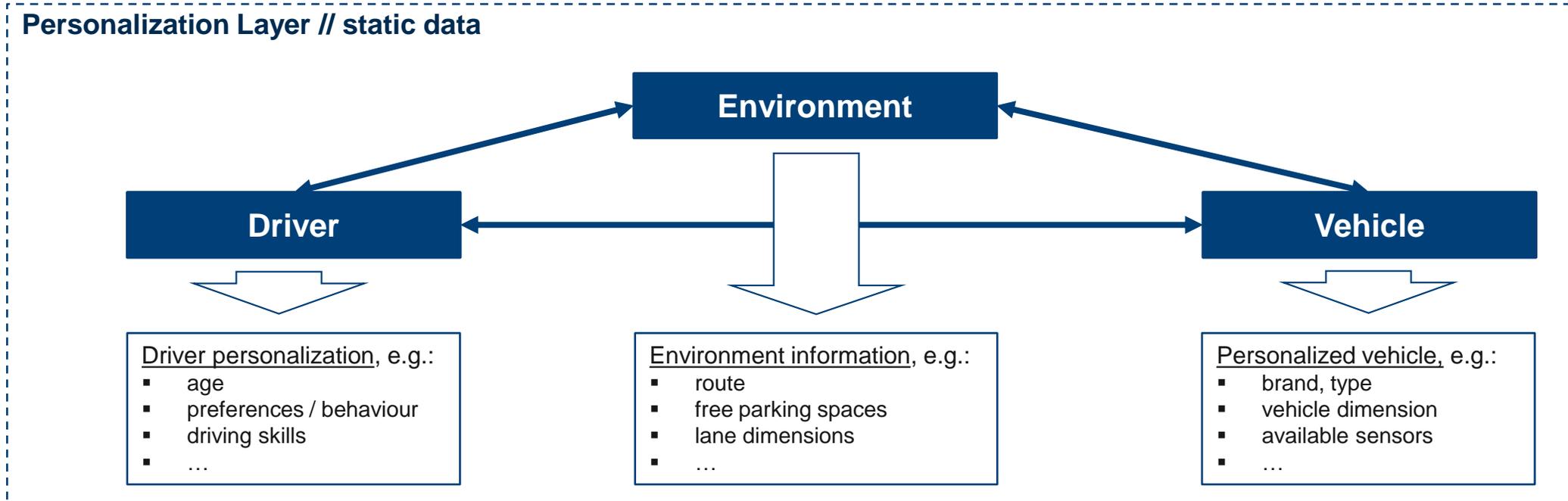
Gorden Wagener  
Message



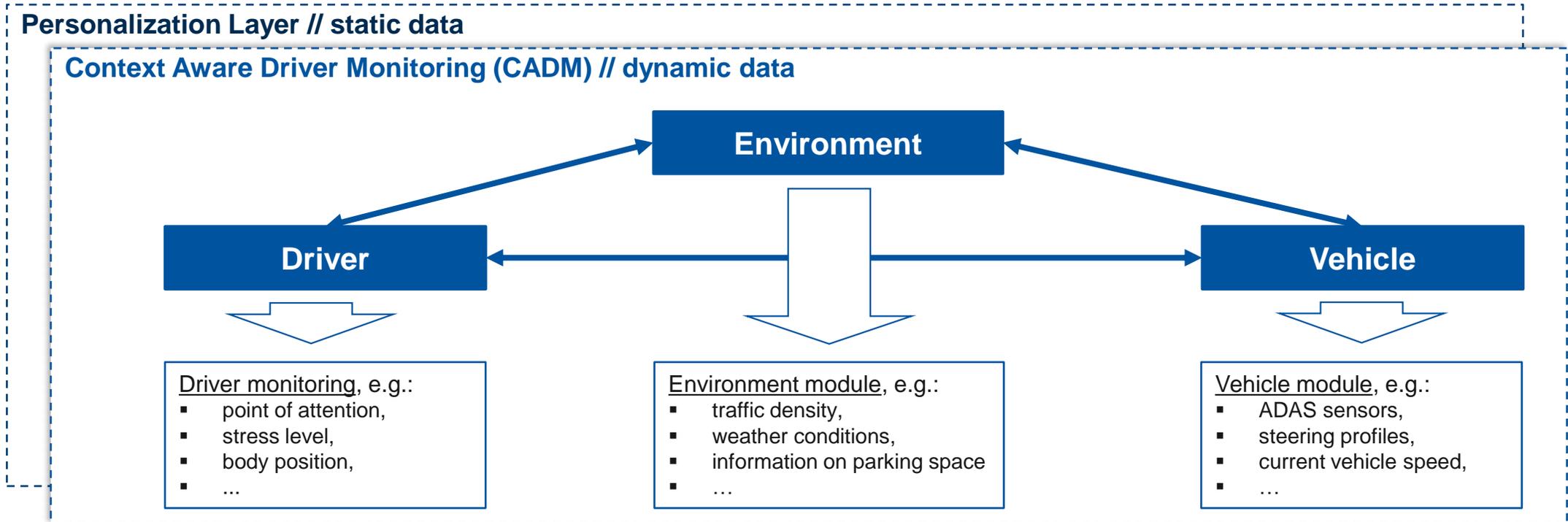
"Zero Layer" dock

Fixed climate control

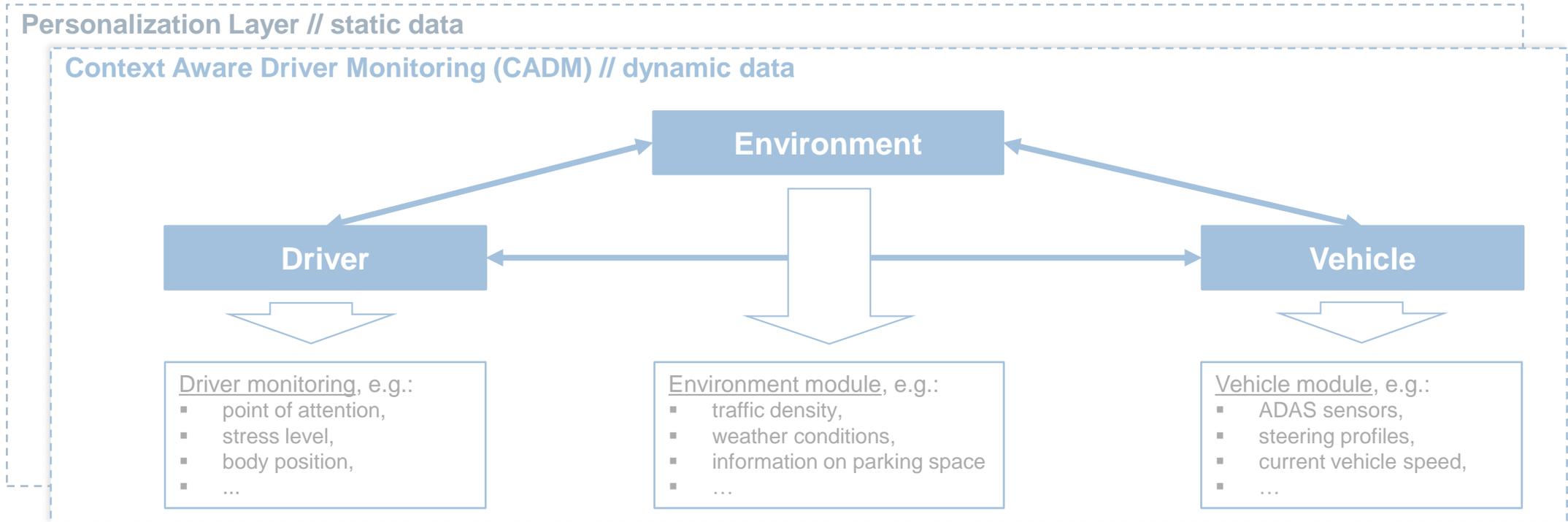
# Integrating Vehicular Multimedia in Driving Context (1)



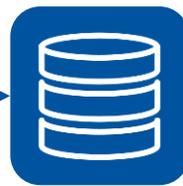
# Integrating Vehicular Multimedia in Driving Context (2)



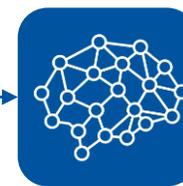
# Main Development Activities to Design Adaptive Interfaces



Scenario Definitions



Open Access Databases



OS Algorithms for Adaptation



Standardized User Evaluation

# User Evaluation in Simulated and Real Driving Environments



Thank You for Your Attention

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