

Hi-Drive Methodology

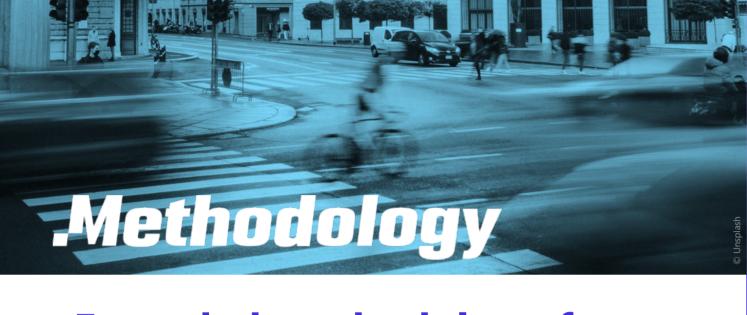
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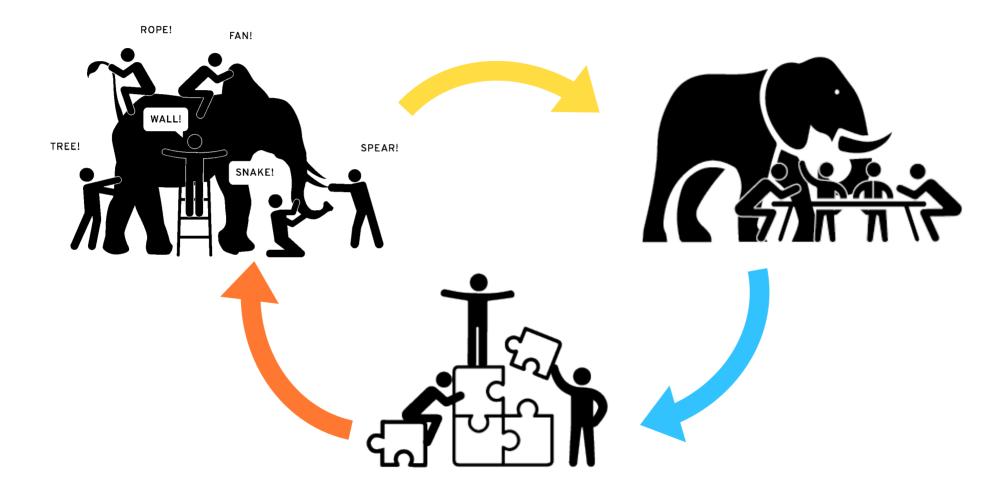




Extended methodology for testing high automation across Europe – from single users and vehicles to the transport system and socio-economics.

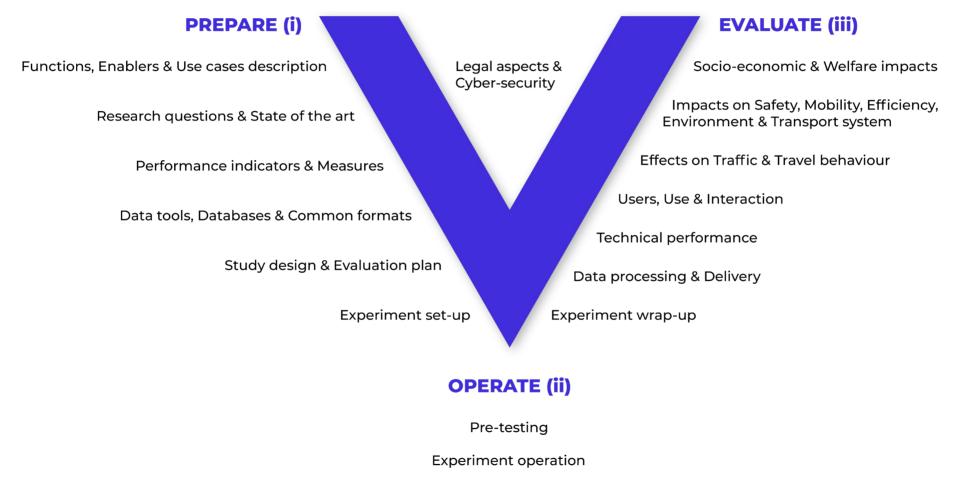
Multidisciplinary Methodology
Research Questions & Data
Impact Mechanisms
Experimental Procedures
Evaluation Methods
Common Data Formats

Common understanding of technology as basis





FESTA Implementation plan adapted for Hi-Drive





Process for setting the Hi-Drive Methodology

Drafting phase

- Initial list of research questions
- Data needs for evaluation
- Requirements for experimental design & procedures
- Methods for users & effects evaluation

Dialogue phase

- Dialogue with operation owners & data providers
- Feasibility check for research question

Finalisation phase

- Final list of research questions
- Agreement on data shared for evaluation
- Agreement on experimental design & procedures
- Detailed plan for users & effects evaluation



Dual focus in evaluation

Users

- Acceptability & acceptance
- Motion sickness & comfort
- AD usage
- Understanding of AD & situation awareness
- Non-driving related tasks
- Transition of control
- Driver monitoring
- Interaction with other traffic participants
- Teleoperation

Effects

- AD performance
- AD availability
- Safety
- Traffic efficiency
- Energy efficiency
- Personal mobility
- Transport system
- Socio-economics



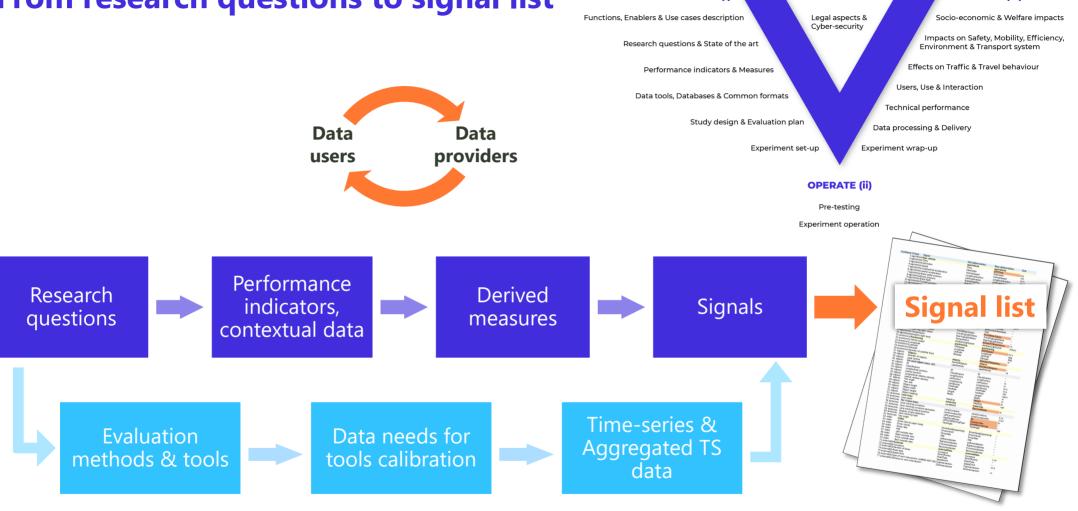
Research questions and their feasibility







From research questions to signal list





PREPARE (i)

EVALUATE (iii)

Methodology targeting a common narrative across evaluation areas

- Vehicle data analysis & Impact assessment:
 Safety, Efficiency, Disturbance, ODD Extension
- Vehicle data analysis & User evaluation: Comfort, Interaction
- Input from user evaluation to effects evaluation and vice versa
- Common set of questions for users in all experiments





Foundation for successful evaluation

- Multitude of experiments providing evidence that allows extensive evaluation
- Established partnerships between evaluation team, enabler providers and operation owners
- Smooth data flow from experiments via tools to all evaluation methods
- Multidisciplinary evaluation methodology
- Well-defined and tested evaluation plan





THANK YOU FOR YOUR KIND ATTENTION.

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