

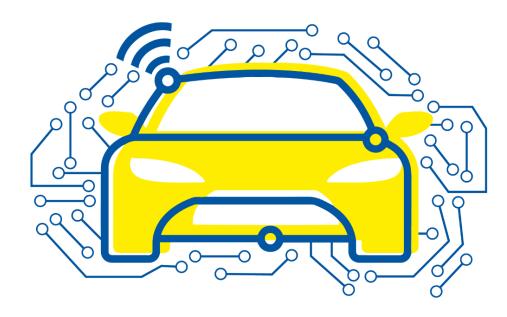
Automated and Connected Driving Challenges

Section 4 – Vehicle Guidance

Introduction

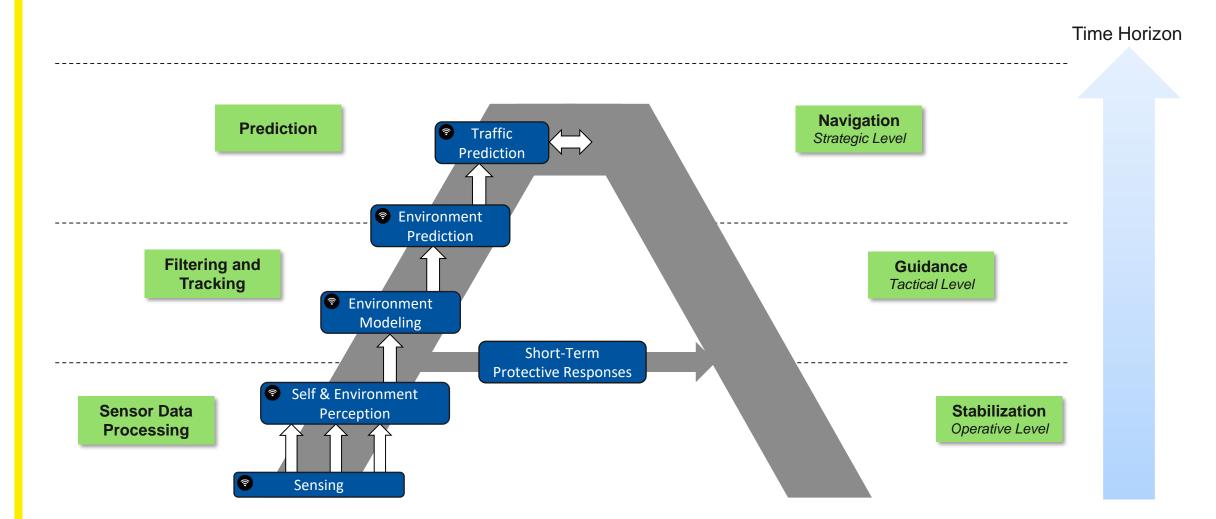
Overview

Prof. Dr.-Ing. Lutz Eckstein
Institute for Automotive Engineering



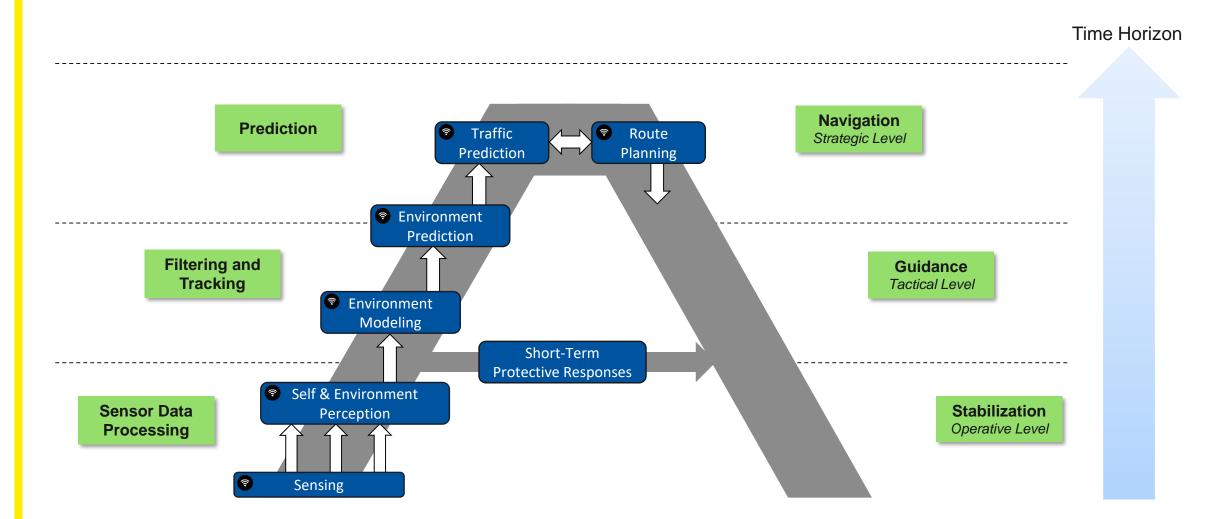






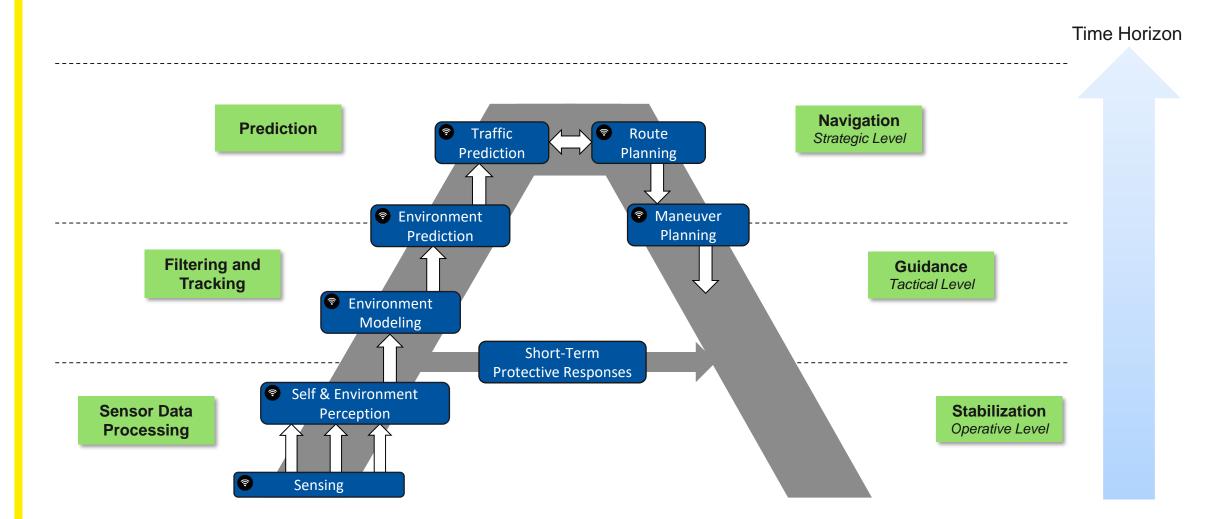






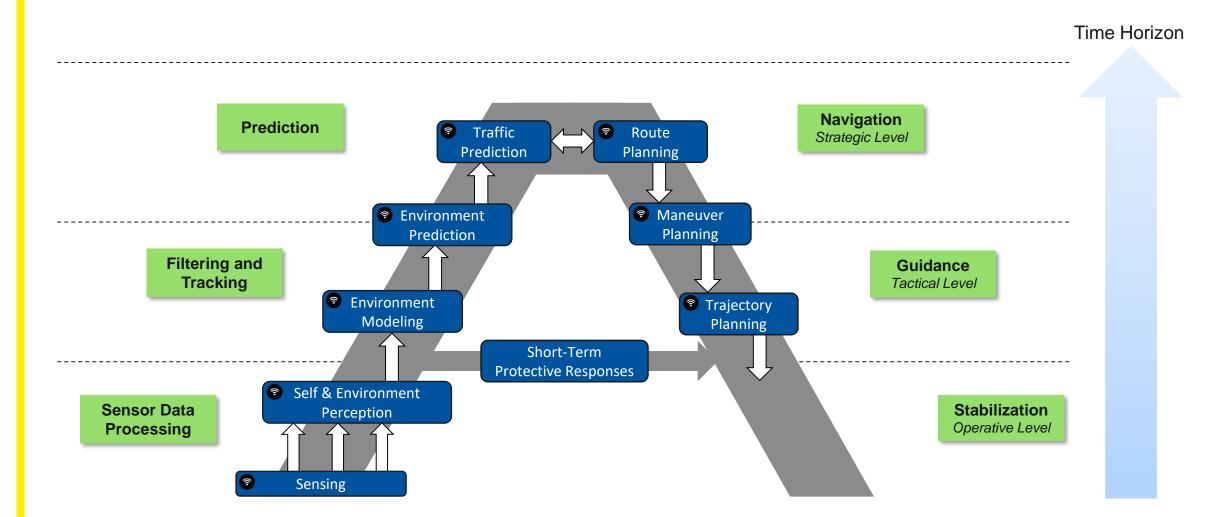






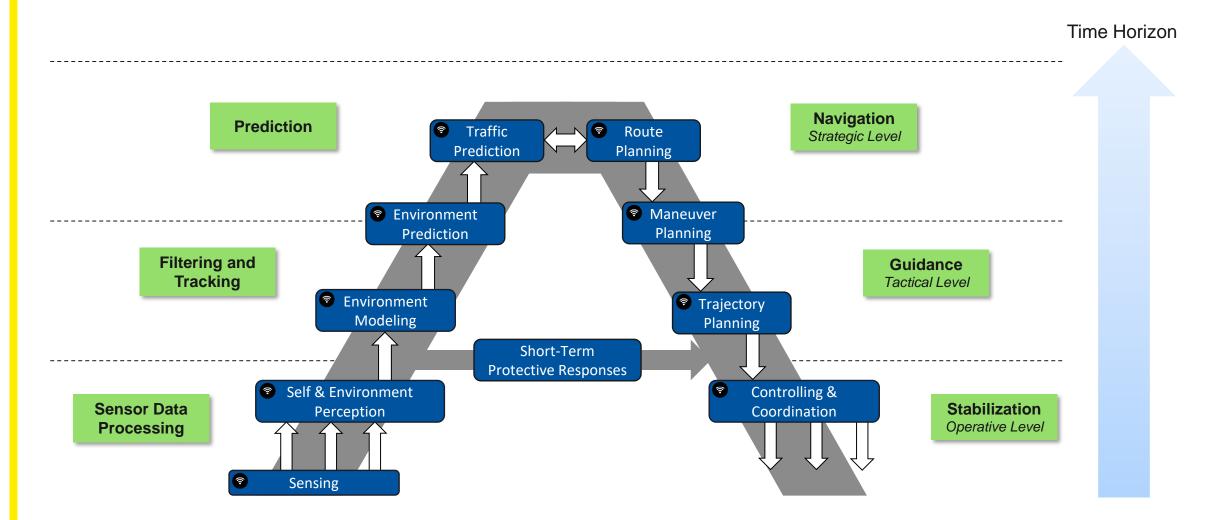














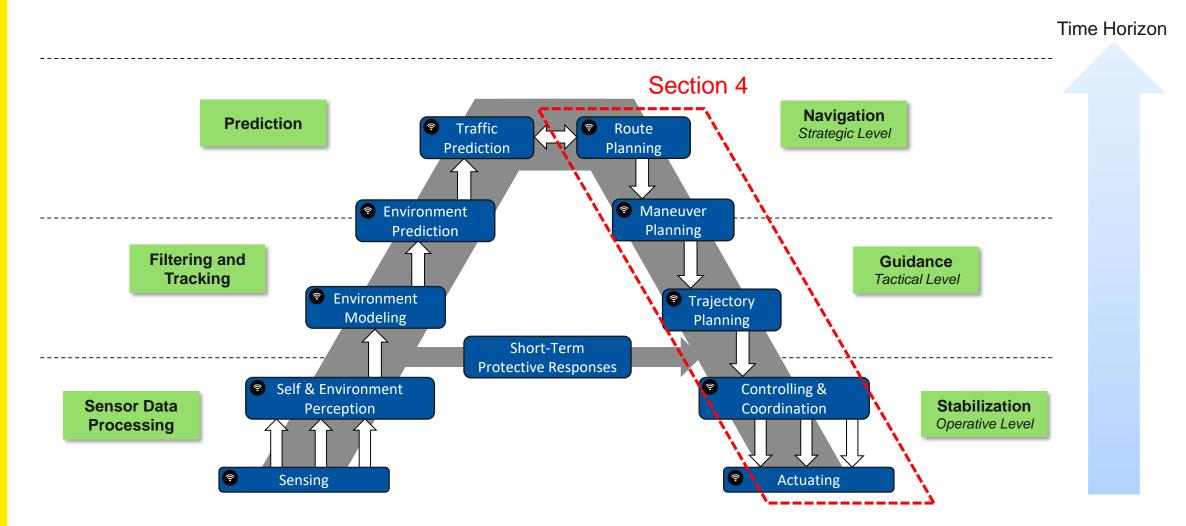


Vehicle-Guidance within an AD-Software-Stack

Time Horizon **Navigation Prediction** Traffic Route Strategic Level Prediction **Planning** Maneuver Environment Prediction **Planning** Filtering and Guidance **Tracking** Tactical Level Environment Trajectory Modeling **Planning** Short-Term **Protective Responses** Self & Environment Controlling & **Sensor Data Stabilization** Perception Coordination **Processing** Operative Level Sensing **Actuating**



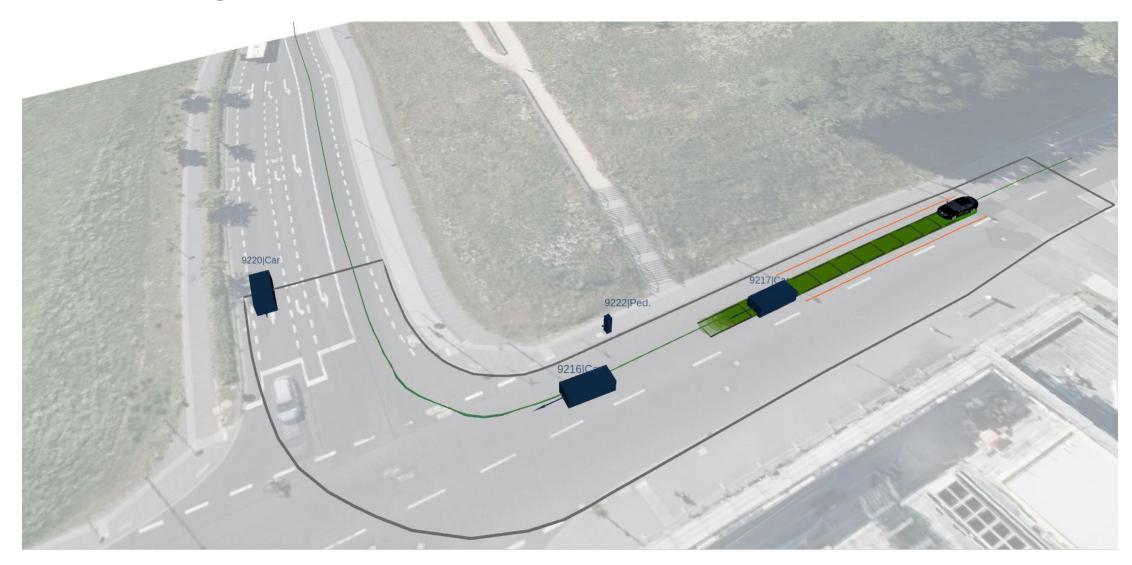






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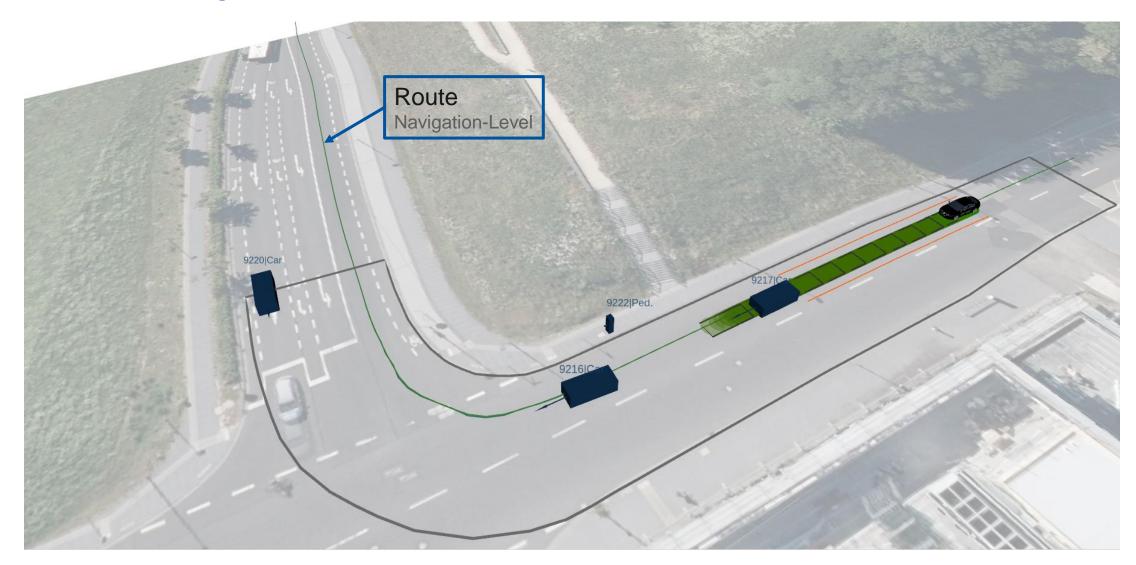
Motion Planning on different Levels of Vehicle Guidance





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Motion Planning on different Levels of Vehicle Guidance





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Motion Planning on different Levels of Vehicle Guidance

