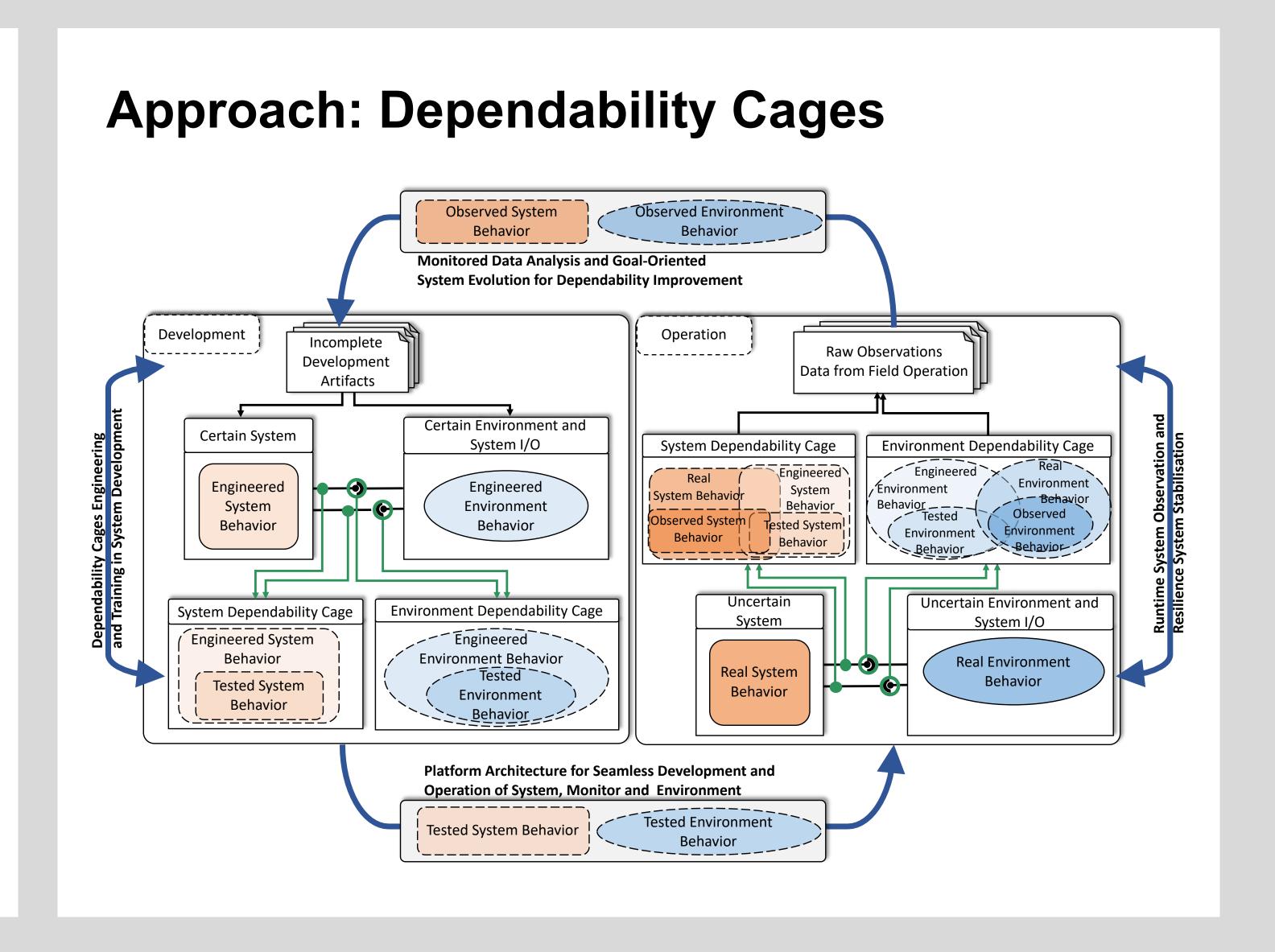# Research Group: Dependable and Autonomous Cyber-Physical Systems

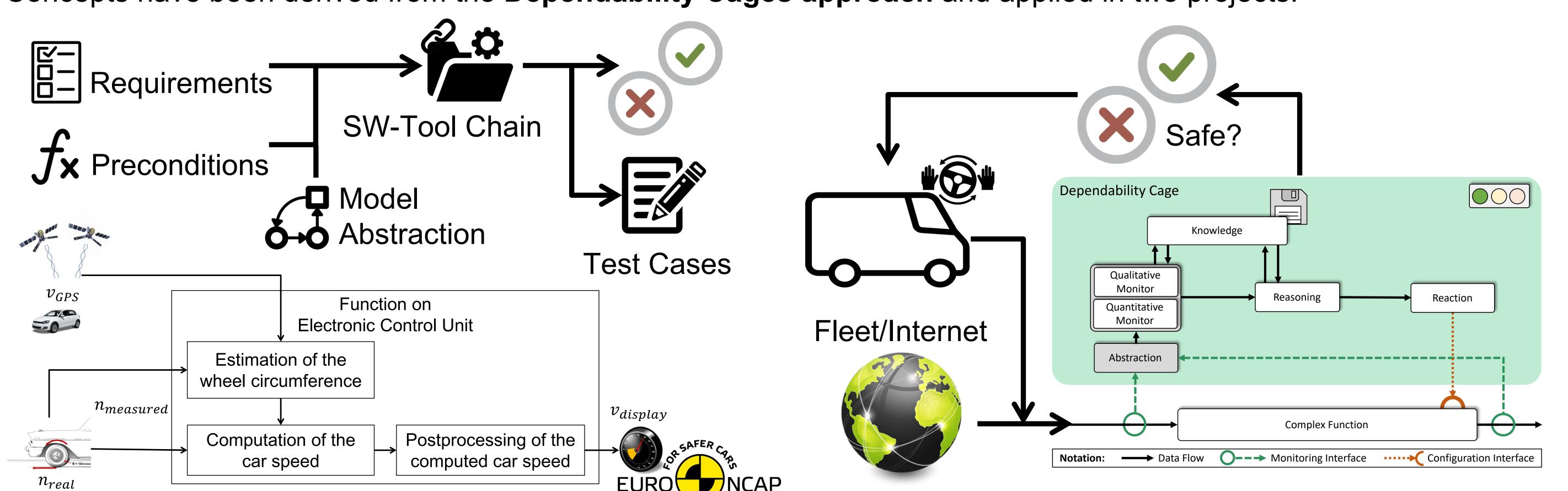## Background and Research Focus

Current development of **safety-critical autonomous systems** follows the paradigm that the systems and their environments need to be fully describable. In an unknown environment, unexpected, possibly critical scenarios may occur. The three main reasons for such critical scenarios are: the **conflict between the design specification and the learning behavior of the autonomous system**, the **incomplete environmental description** against unknown operation environments and the **incomplete specification with conscious and unconscious omission**. Our research focus is **how to make safety-critical autonomous systems more reliable throughout their entire life cycle – in development and during operation**.

Approach: Dependability Cages

Applications of Dependability Cages

Concepts have been derived from the **Dependability Cages approach** and applied in two projects:

**If you are interested in our research topics, please contact us and join our team.
We are looking for YOU!**

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