

INTO-CPS

<http://into-cps.au.dk/>

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INTO-CPS project

- ▶ integrated tool-chain for MBD of **Cyber-Physical Systems**
- ▶ UTP semantics for discrete, continuous, and hybrid systems
- ▶ **SysML** for high-level system modelling
- ▶ **VDM-RT** for modelling of discrete controllers
- ▶ **Modelica** and **20-sim** for modelling of system dynamics
- ▶ **FMI** for co-modelling of heterogeneous systems
- ▶ four industrial case studies
 - ▶ route simulation in electric cars
 - ▶ **agricultural robot**
 - ▶ railways
 - ▶ HVACs in smart buildings
- ▶ reasoning about hybrid systems using **UTP and Isabelle**
- ▶ **Schedule:** Jan 2015 – Dec 2017

Robotti



INTO-CPS overview

