



# Distributed platform for multi-model co-simulations in smart grids

PhD MAN

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# Smart Grid

## Main characteristics

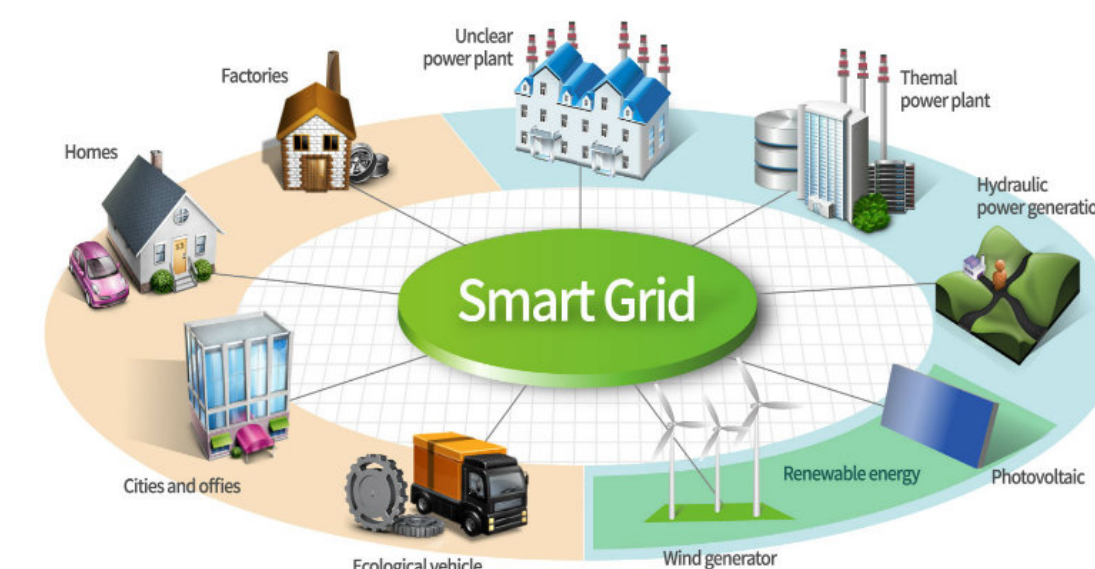
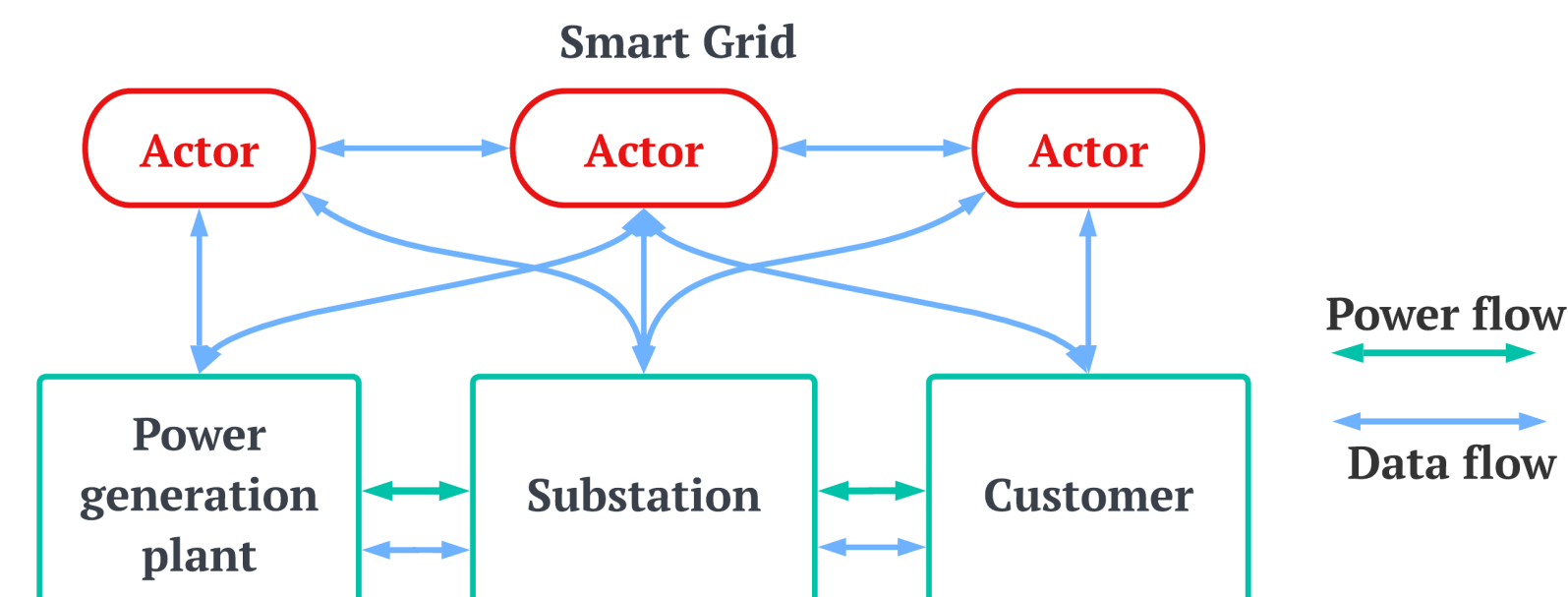
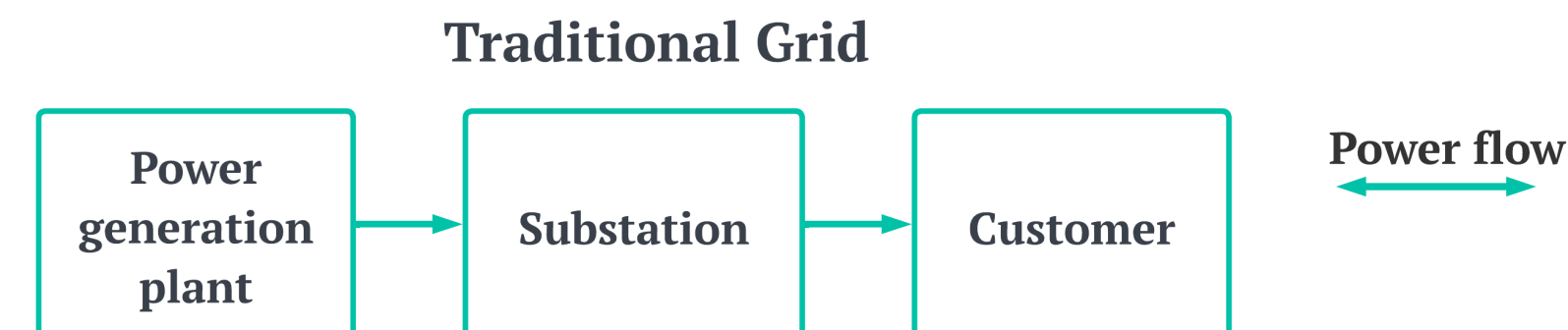
- Shift from hierarchical architecture
- Bidirectional flows of data and energy

## Objectives:

- Improve service reliability by increasing automation and monitoring capabilities
- New kind of actors
- Multi-energy approach

## Challenges

- Manage data exchange (IoT)
- Manage Renewable Energy Resources (RES)



# Research topic

## Models for the co-simulation

In order to reach these objectives to develop models that can seamlessly work together in different combination. Nowadays there is a lack of tools that enable to do so, the research is mainly focused on studying scenarios that include few models that most of the time are developed ad hoc to work with each other

The objective is study and create **models** for the smart grid scenario which can work in **co-simulations** infrastructure. This kind of research is needed to explore the possible scenarios that may appear in the shift towards the smart grid and find the best way to manage it.

