

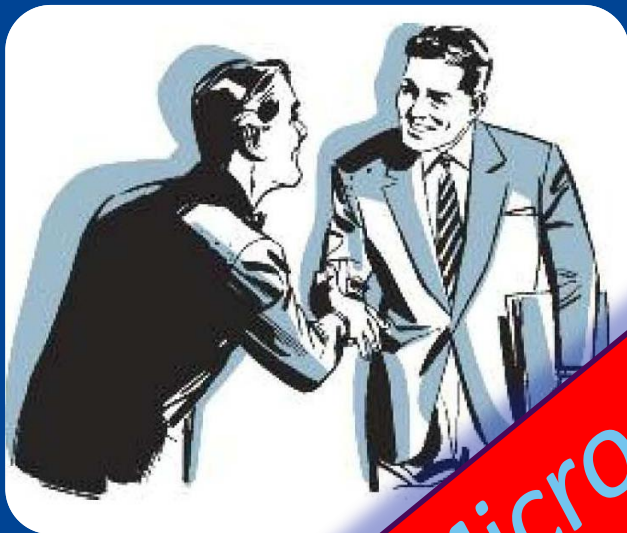


# MGIInnoC

## Decentralized Micro Grid Innovation Center

# Activity Outline

Topic: Micro-Grid



Business Community:  
Consumer Services

“Micro-Grid as a Service”

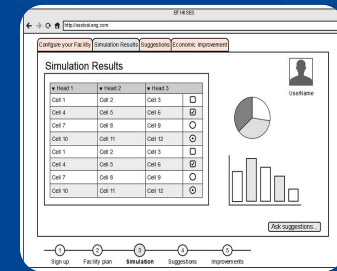


# Components

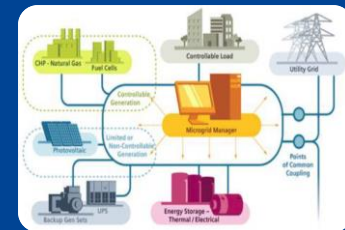
## 1 Knowledge Base



## 2 Online Configuration Tool



## 3 MG Controller Demonstrator



# 1.) MG Knowledge Base

Empirical **analysis** of

- successful **MG implementations**
- current **MG controller software** on the market
- consulting **firms and start-ups** that are active in the area

## 2.) Online Configuration Tool

- simulation of technical **MG components** (controller, consumers/producers/storage, exchange with grid)
- **optimal MG configuration** under physical (components, climate) and economic (tariffs, component cost) constraints
- location-specific **real empirical data**
- simulation of a **one-year cycle**

# Three Size Classes

- Apartment building (50-60 kW)



- Large office building (up to 300 kW)

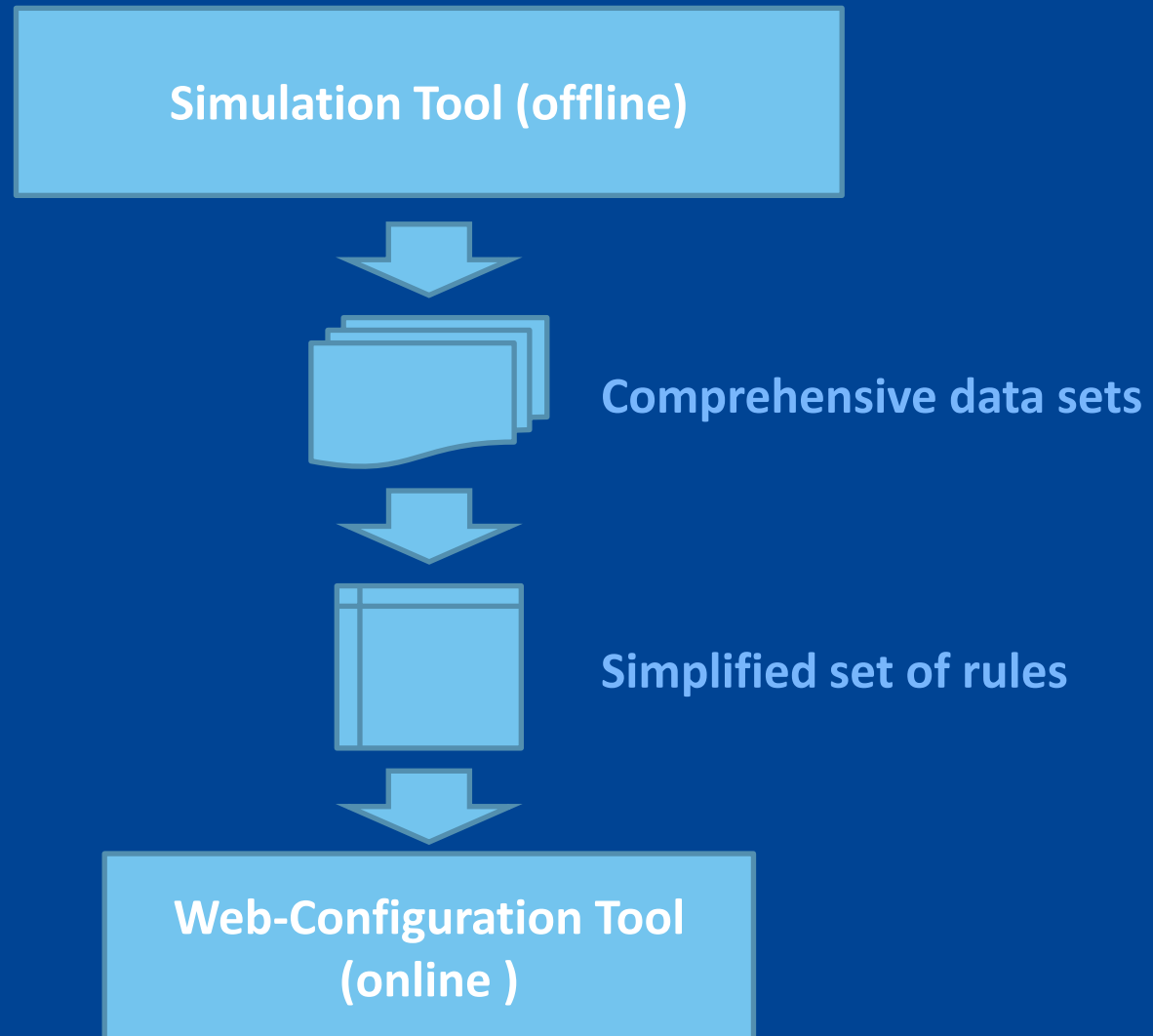
- Small industrial facility (up to 1 MW)



# Different Geographic Zones



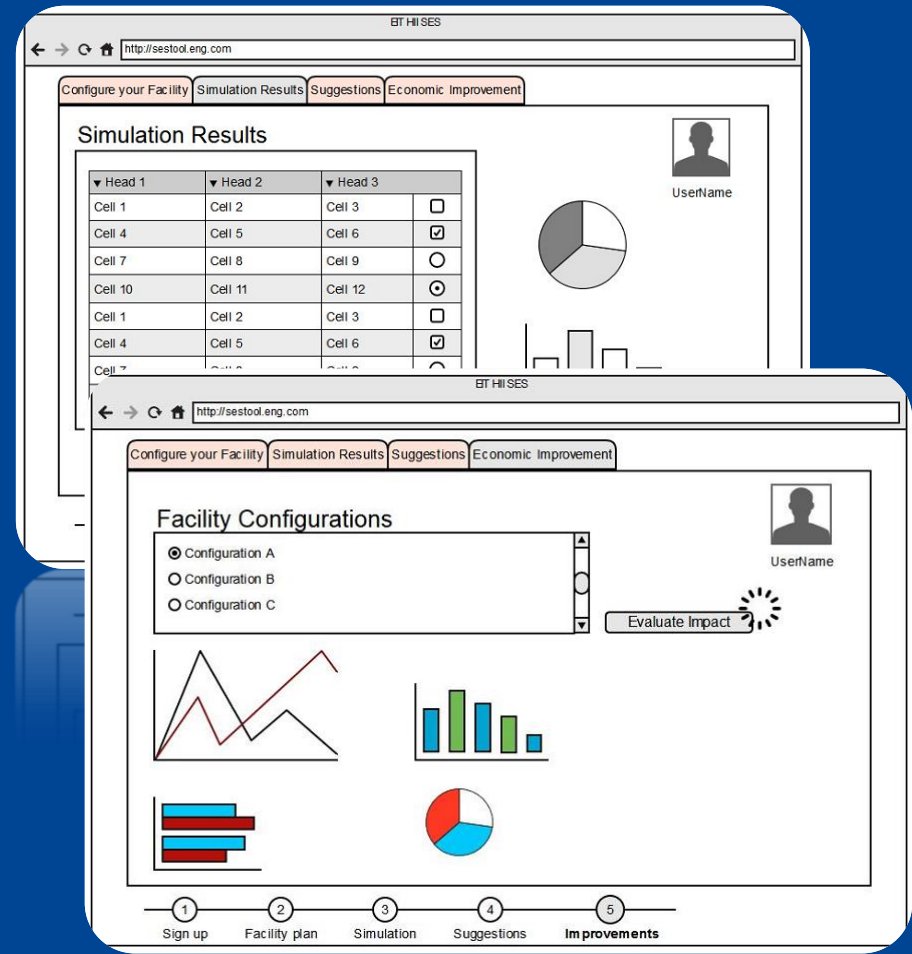
# Online Configurator





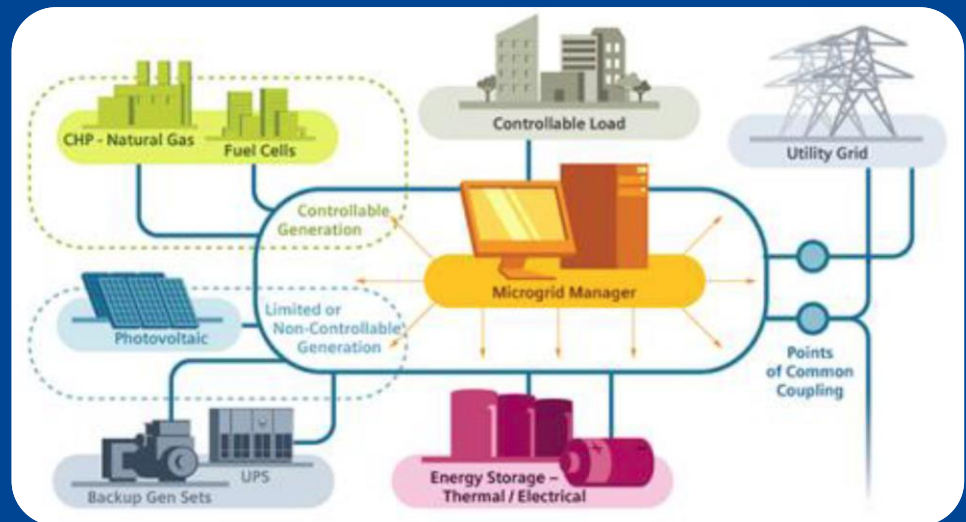
# Attractive Web-Interface

- Integration in website of energy consultants
- Educational tool as „teaser“ for MG solutions

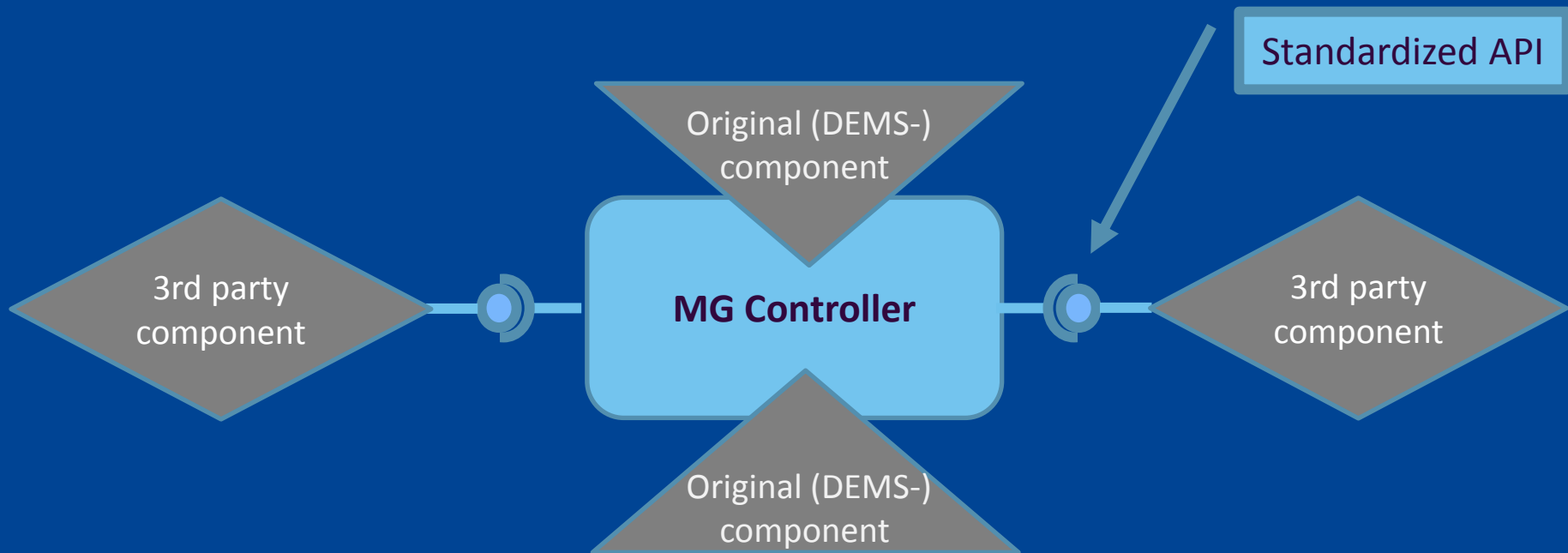


# 3.) MG Controller Demonstrator

- SIEMENS DEMS adapted to MG
- Plug-and-Play for 3rd party component models

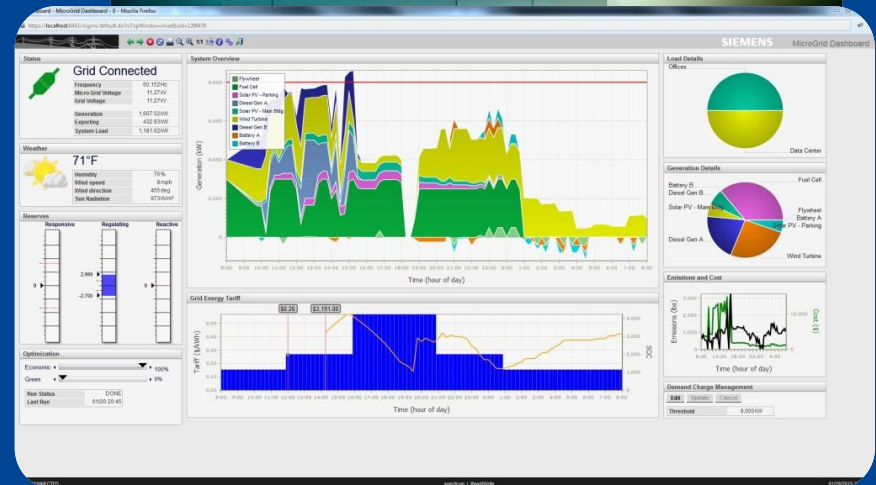


# App-Store Model



# Hardware-in-the-Loop Demo

- DEMS at Siemens Lab Erlangen
- real + simulated components
- Simulation & demonstration of MG configurations



# Business Opportunities

- **Improved products & services** for industrial partners (MG controller software, MG consulting & management services, Component „App-Store“)
- **New service-options** for energy consultants (MG-sizing, configuration, implementation, operation & optimization)

# Outlook

- Get (more) **business champions** involved
- Focus on the (large) **international market** for **off-grid** (island) micro-grids

# Contact

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