

# Das EDCS: Performance auf Betriebsebene

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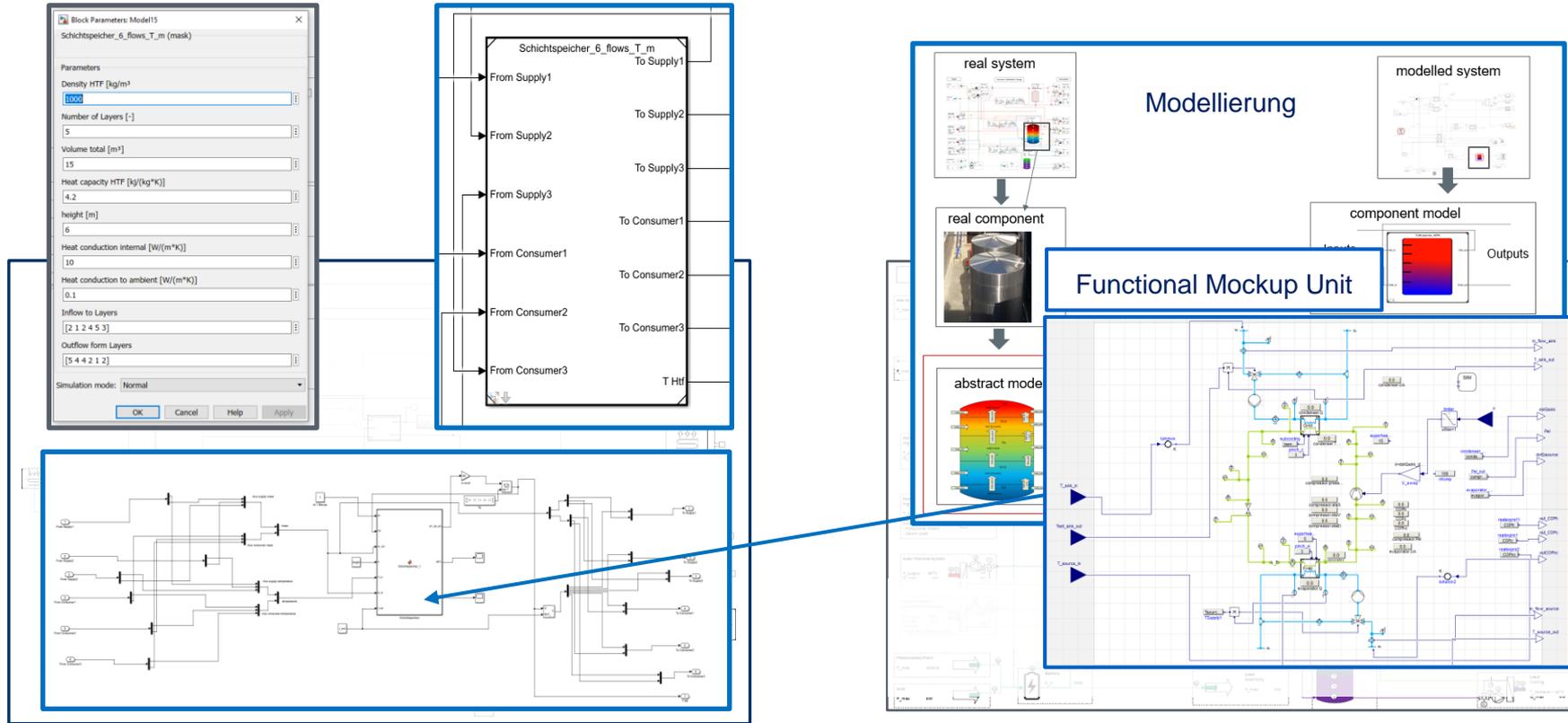
Forschungsbereich industrielle Energiesysteme  
Prof. Renè Hofmann



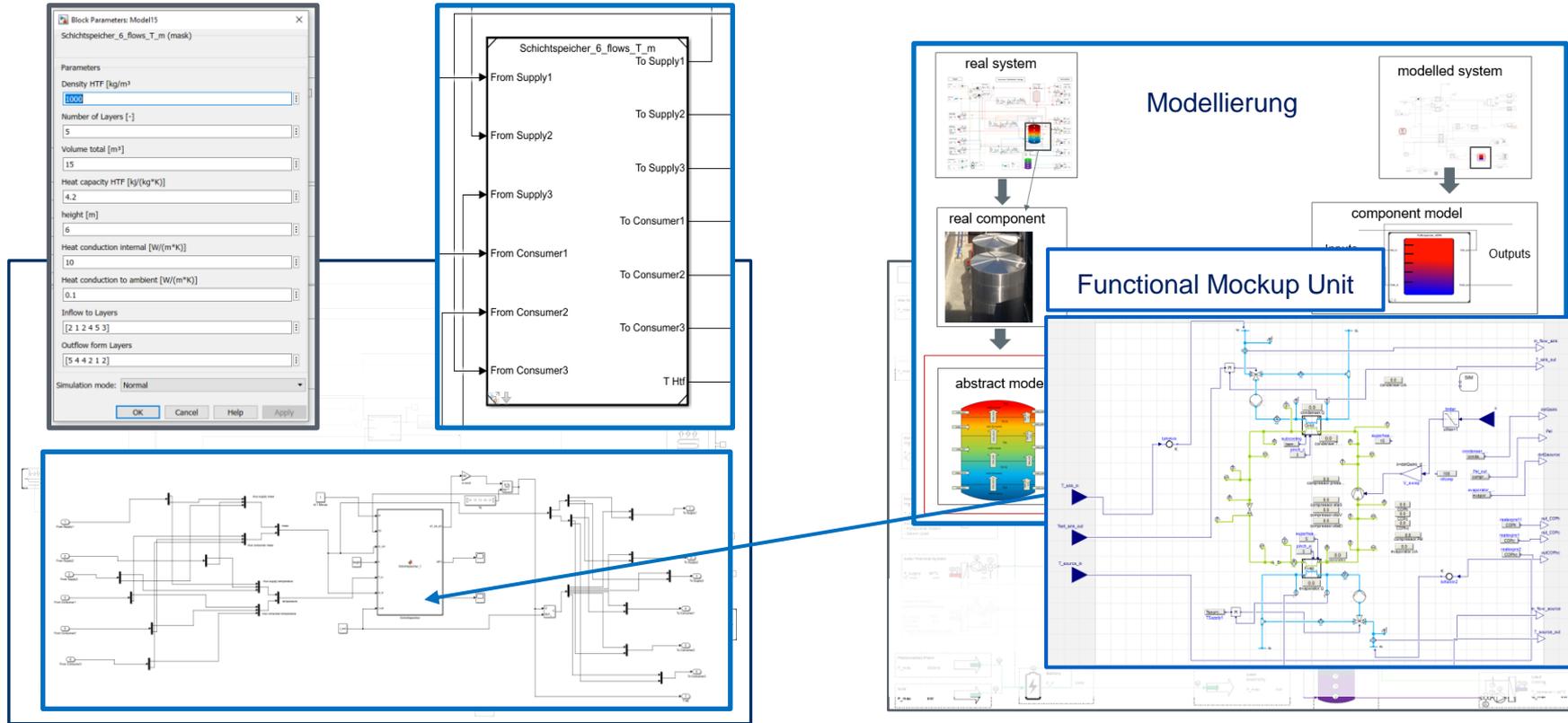


# EDCS - PERFORMANCE AUF BETRIEBSEBENE

- Simulationsmodell(e)



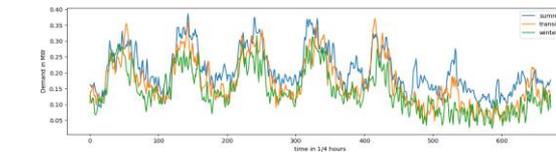
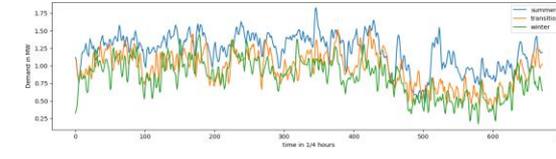
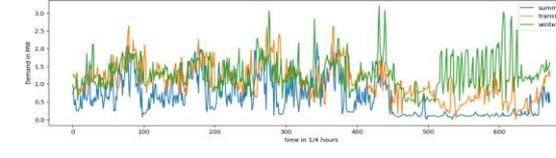
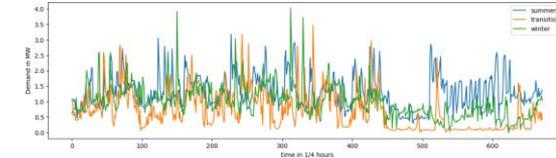
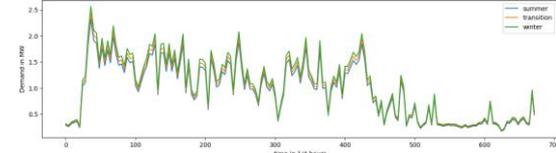
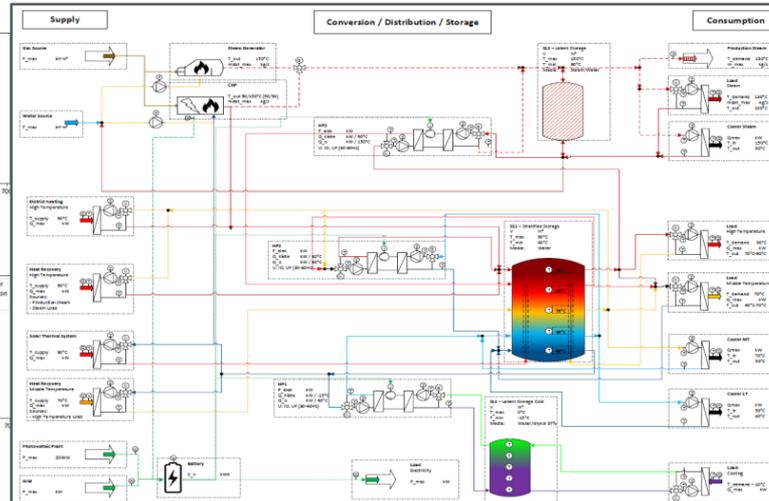
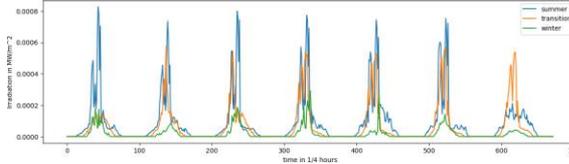
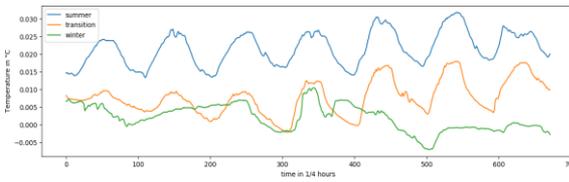
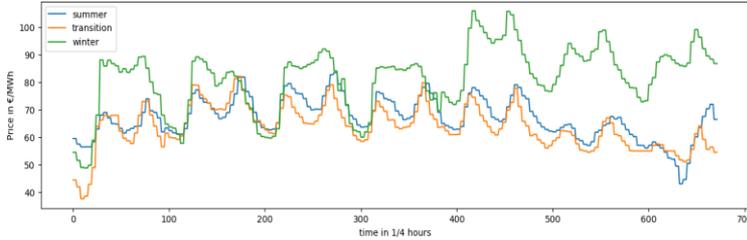
- Simulationsmodell(e)



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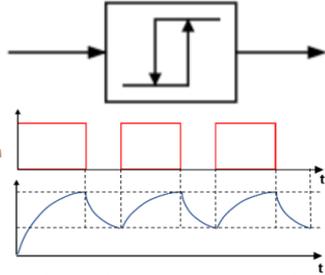
- Externe Randbedingungen – reale Anlagendaten (skaliert)
- 3 Lastszenarien: Sommer, Winter, Übergang

- Gaspreis: 35€/MWh
- Preis Fernwärme: 50€/MWh
- CO<sub>2</sub>-Preis: 40€/t
- CO<sub>2</sub>-Emissionsfaktoren:
  - Strom: 0.15 kg<sub>CO<sub>2</sub></sub>/kWh
  - Gas: 0.2 kg<sub>CO<sub>2</sub></sub>/kWh
  - FW: 0.1 kg<sub>CO<sub>2</sub></sub>/kWh

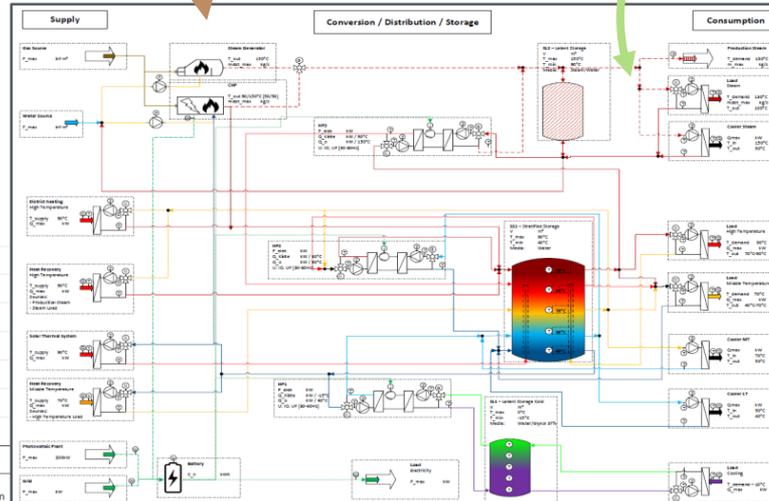
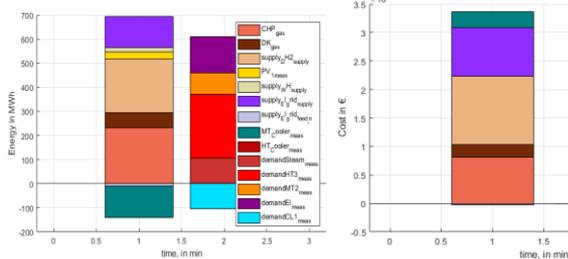
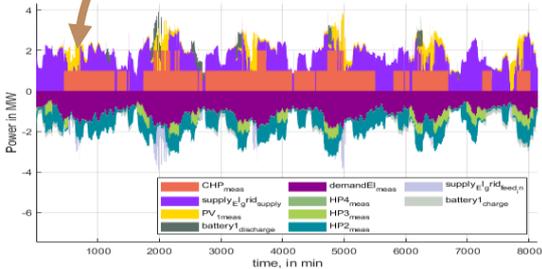


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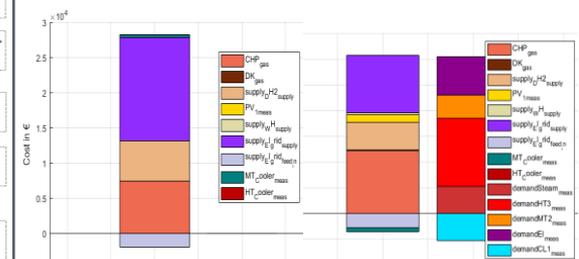
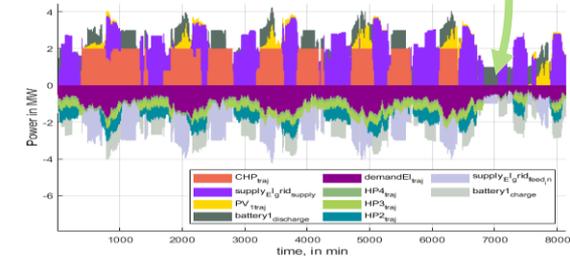
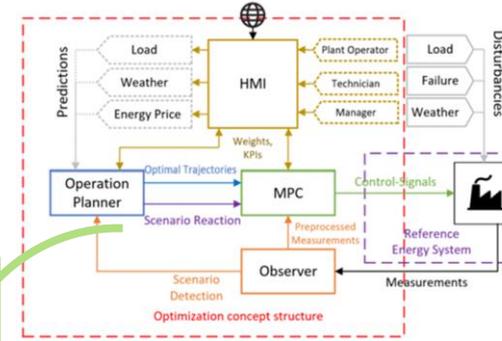
- Einsparungspotential durch EDCS?



„konventionelle“  
2-Punkt-Regelung

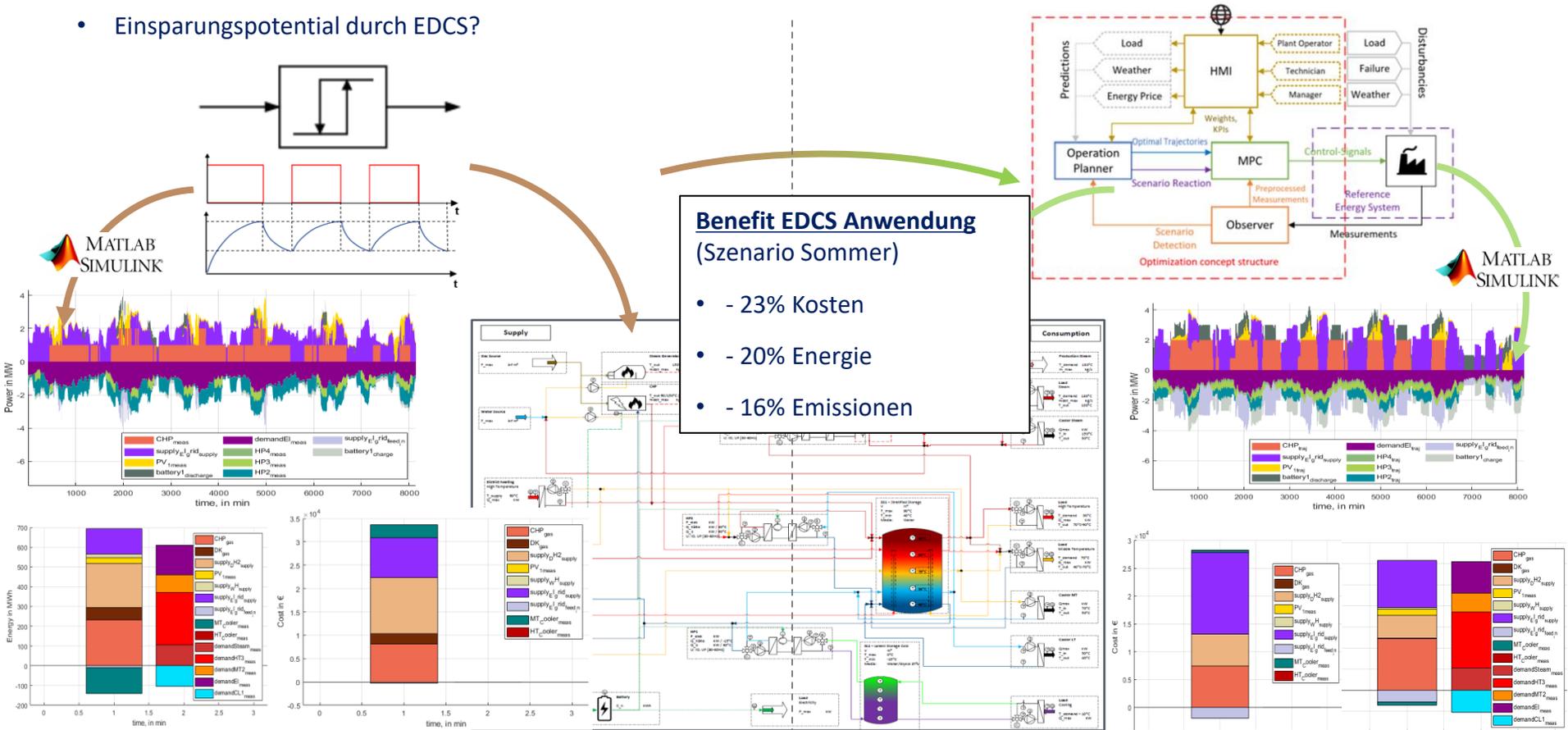


EDCS-  
Regelung



# EDCS - PERFORMANCE AUF BETRIEBSEBENE

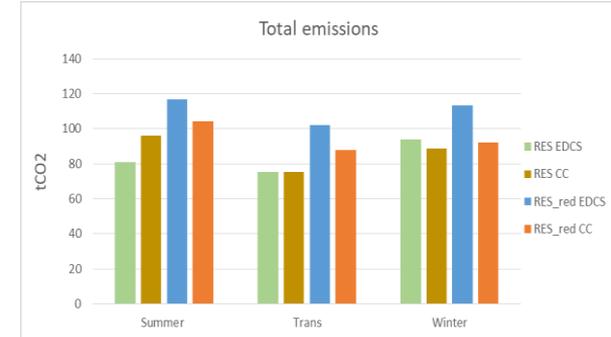
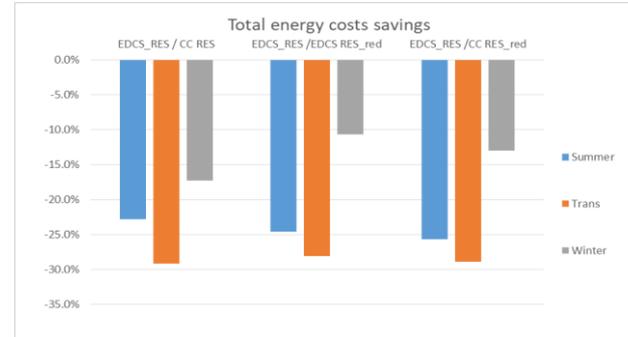
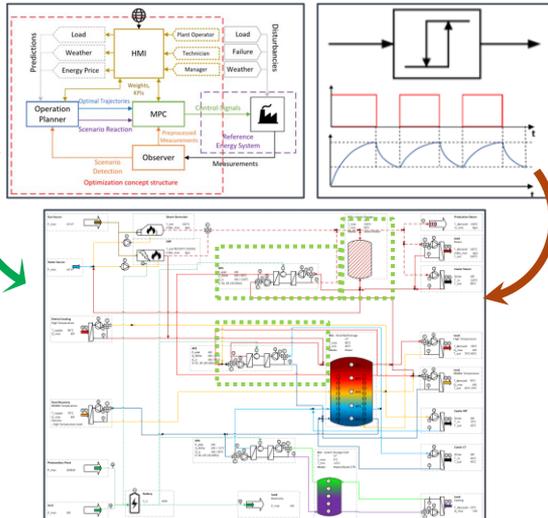
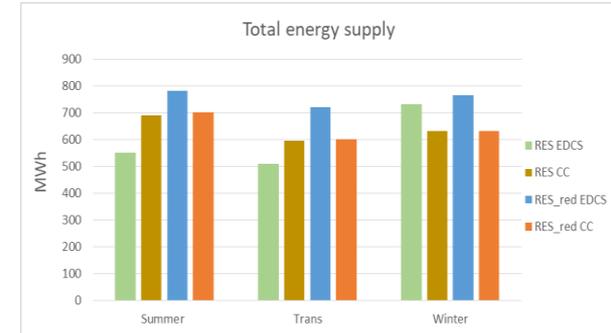
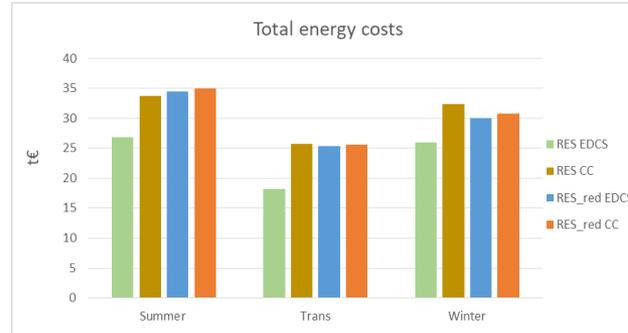
- Einsparungspotential durch EDCS?



# EDCS – ÜBERBLICK EINSPARUNGEN

- 3 Lastszenarien: Sommer, Winter, Übergang
- 4 Anlagen / Regelungsszenarien

	<b>EDCS</b>	<b>konv</b>
<b>RES</b>	<b>SC1.1</b>	<b>SC1.2</b>
<b>RES reduced</b>	<b>SC2.1</b>	<b>SC2.2</b>



- Je mehr flexible Komponenten desto Größer Wirksamkeit EDCS
- Minimale Kosten ≠ Minimale Emissionen/Energiebezug  
->40€/t<sub>CO2</sub> zu wenig



# DANKE

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evon GmbH

# EDCS – ÜBERLICK EINSPARUNGEN



• **Kostenminimal**



• **Emissionsminimal**

