



# Distributed energy storage

## Overview

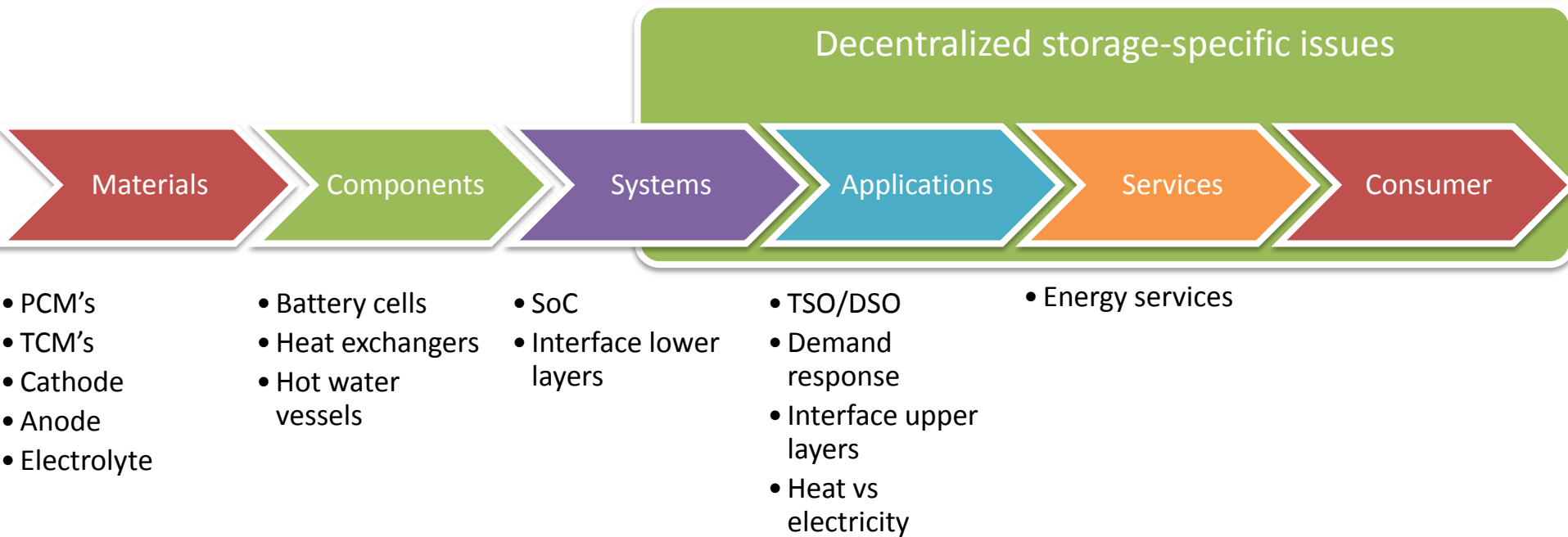


# Yesterday's topics

- What's in a name: distributed vs decentralized ?
- Skagen facility
  - Distributed or decentralized ?
  - Compared to the Linear Smart Grid pilot
    - Smart meters
    - Smart devices
    - Residential energy storage

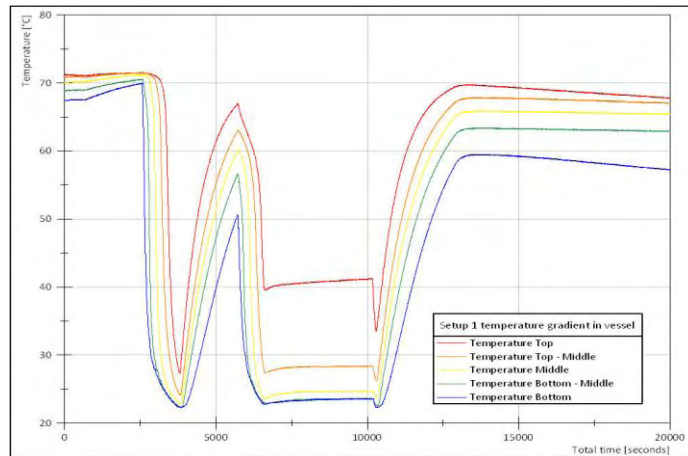


# Value chain



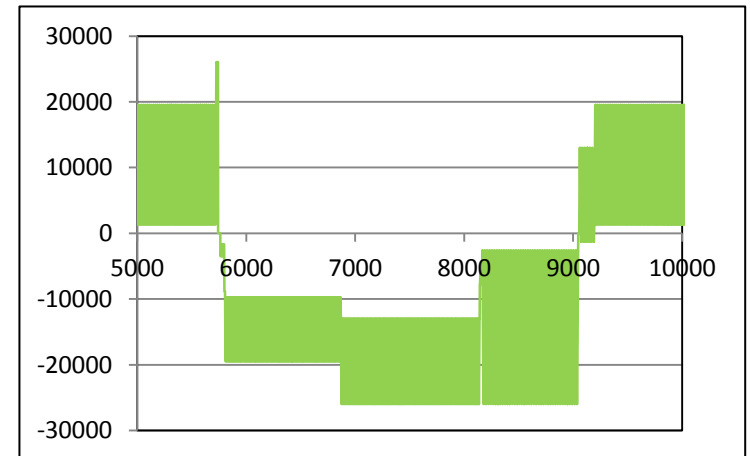
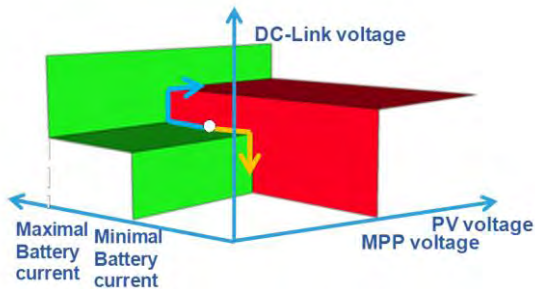
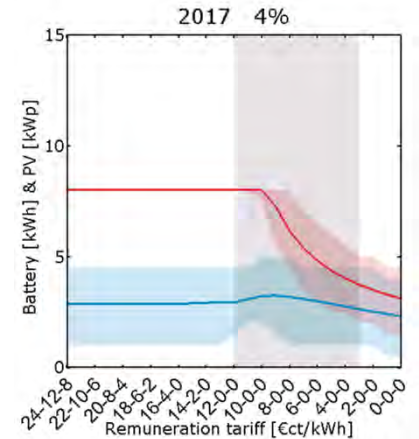
# Virtual collective storage

- Domestic hot water tanks + heat pumps
- Distributed storage control scheme
- SoC monitoring
- Economical viability
- Impact on the grid



# PV + battery storage

- Control algorithms for diverse objectives
  - Maximal self-consumption
  - Island-operation
  - ...
- Techno-economical feasibility
- Lifecycle testing of batteries



# Safety of large battery systems

- Coordinator of STALLION project
- Defining standard test procedures of the testing of large grid-connected Li-Ion battery systems





# Vehicle-to-grid

- Grid impact
- Impact on battery lifetime
- Smart charging algorithms and interfaces

