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INTERFERRY 2023

# Making the System Work

## Considerations on Integrating Large Battery Systems

Mathilde Bergerskogen

**Navigation & Automation**

**Generator Set**

**Charging System**

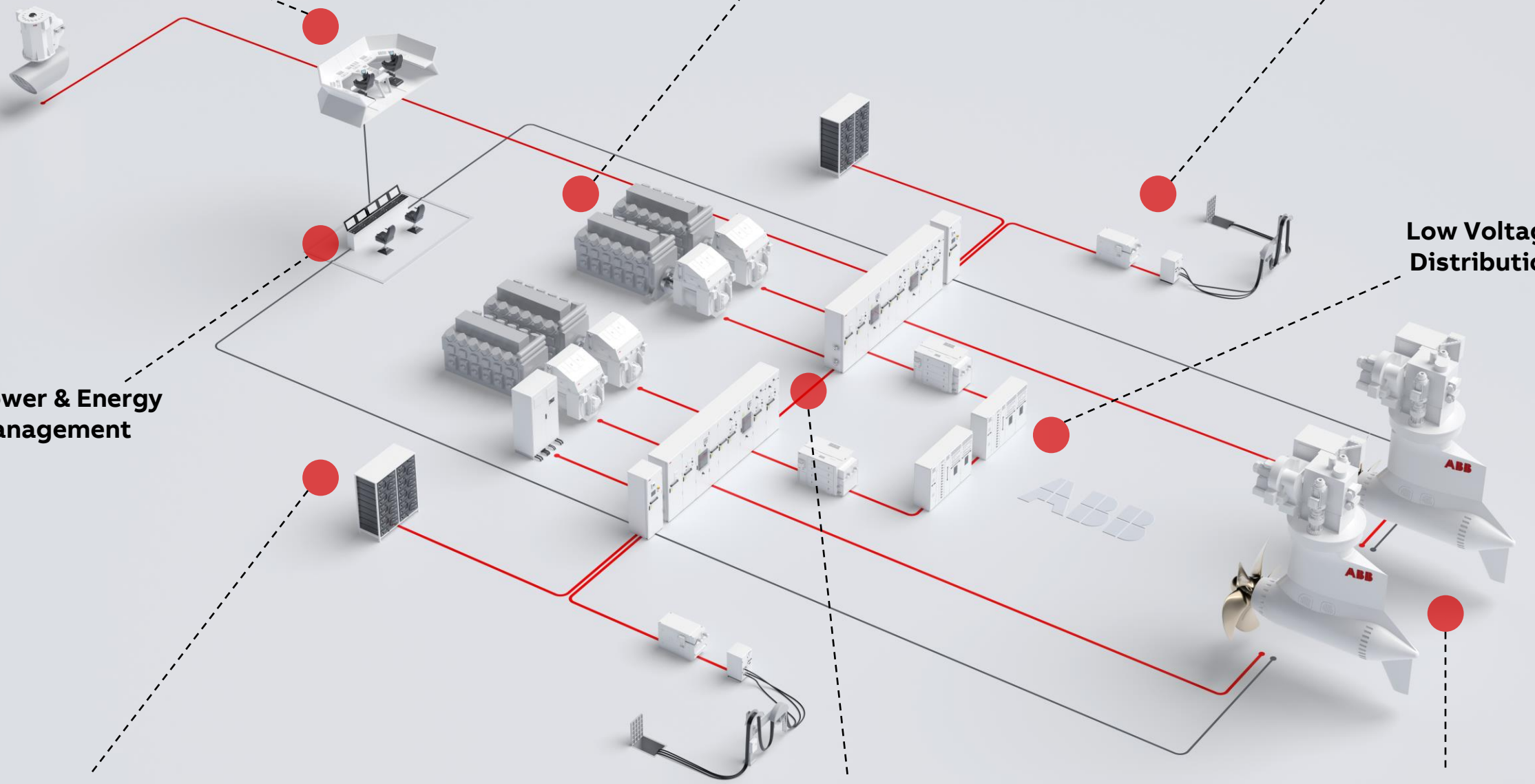
**Power & Energy Management**

**Low Voltage Distribution**

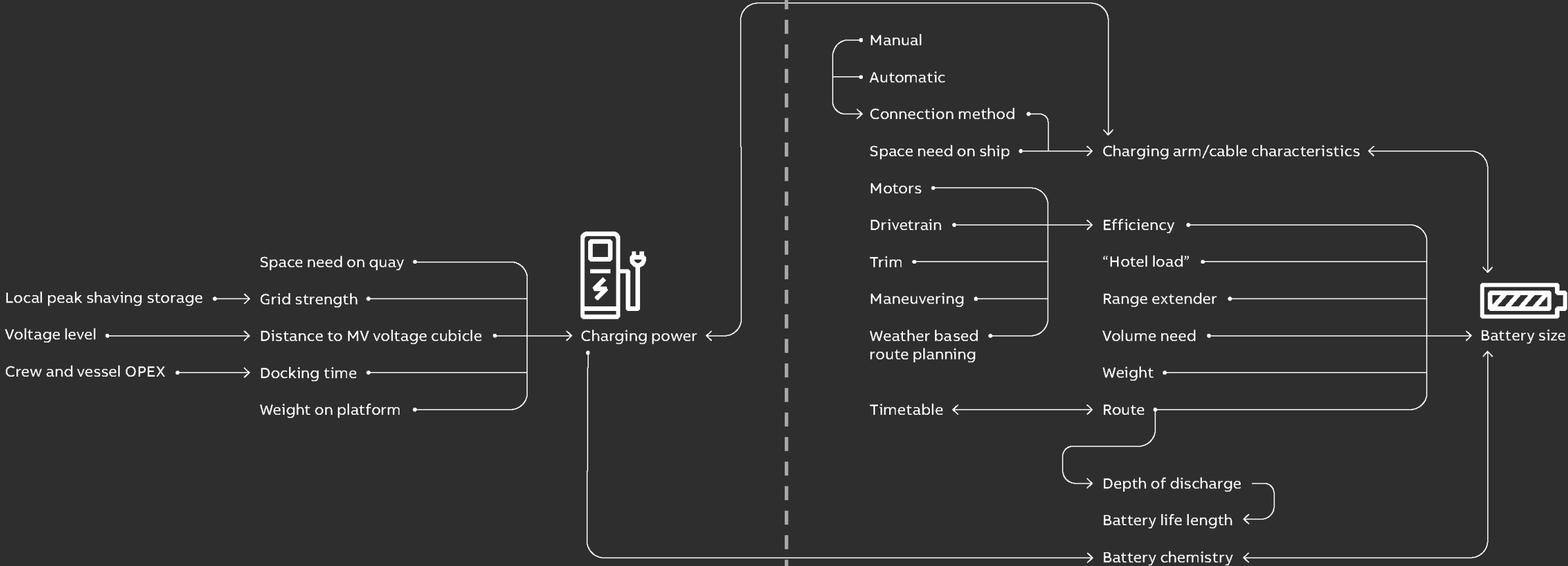
**Batteries and Fuel Cells**  
(3<sup>rd</sup> party supplier)

**ABB Power System**  
(AC or DC)

**Azipod® Propulsion**

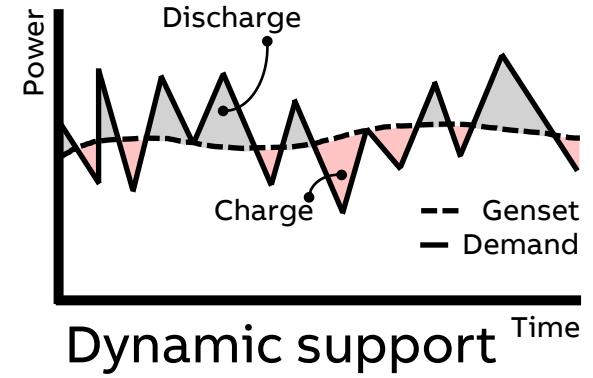
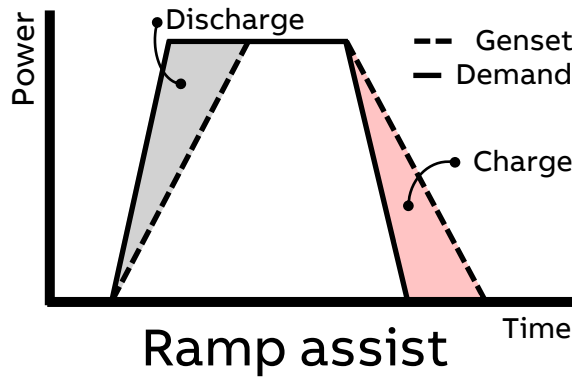
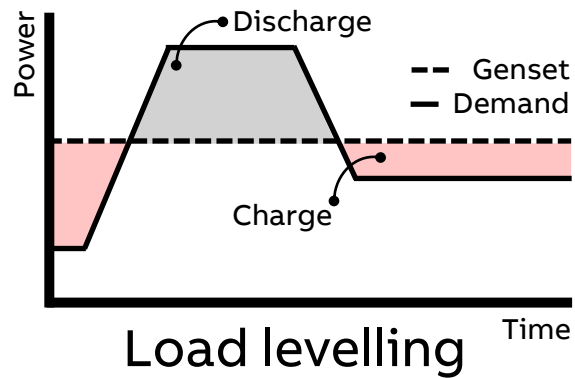
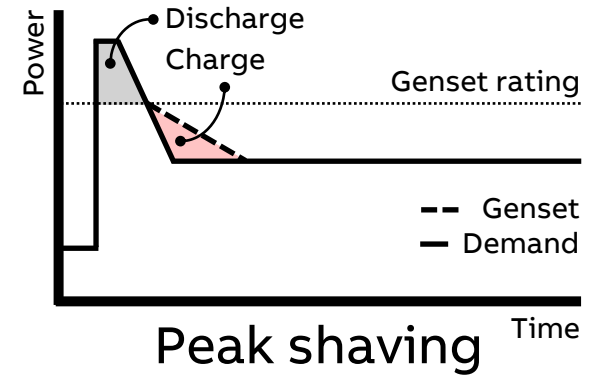
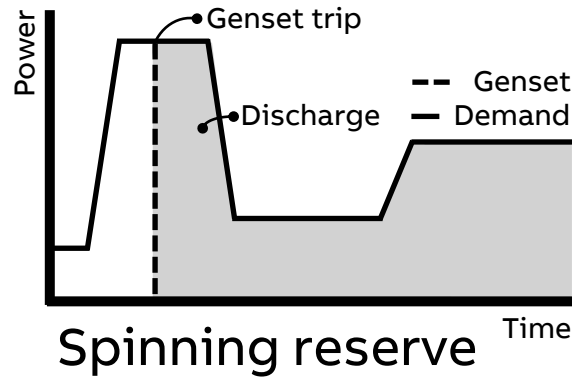
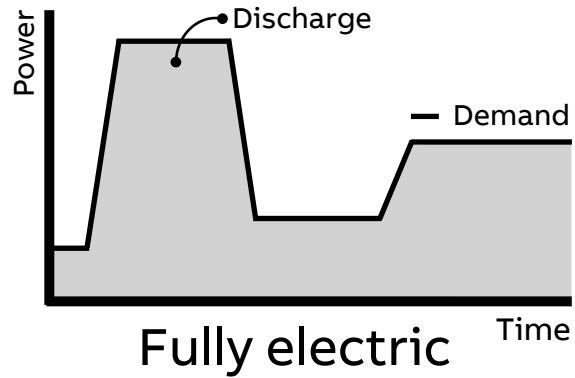


# Considerations



# Where to start?

Operational profile is key

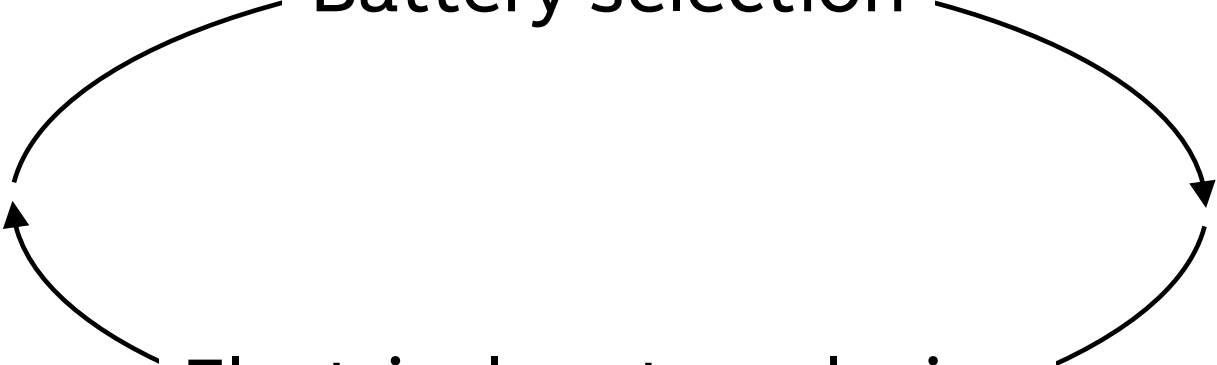




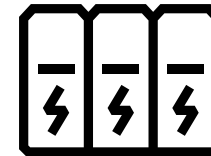
Operational profile

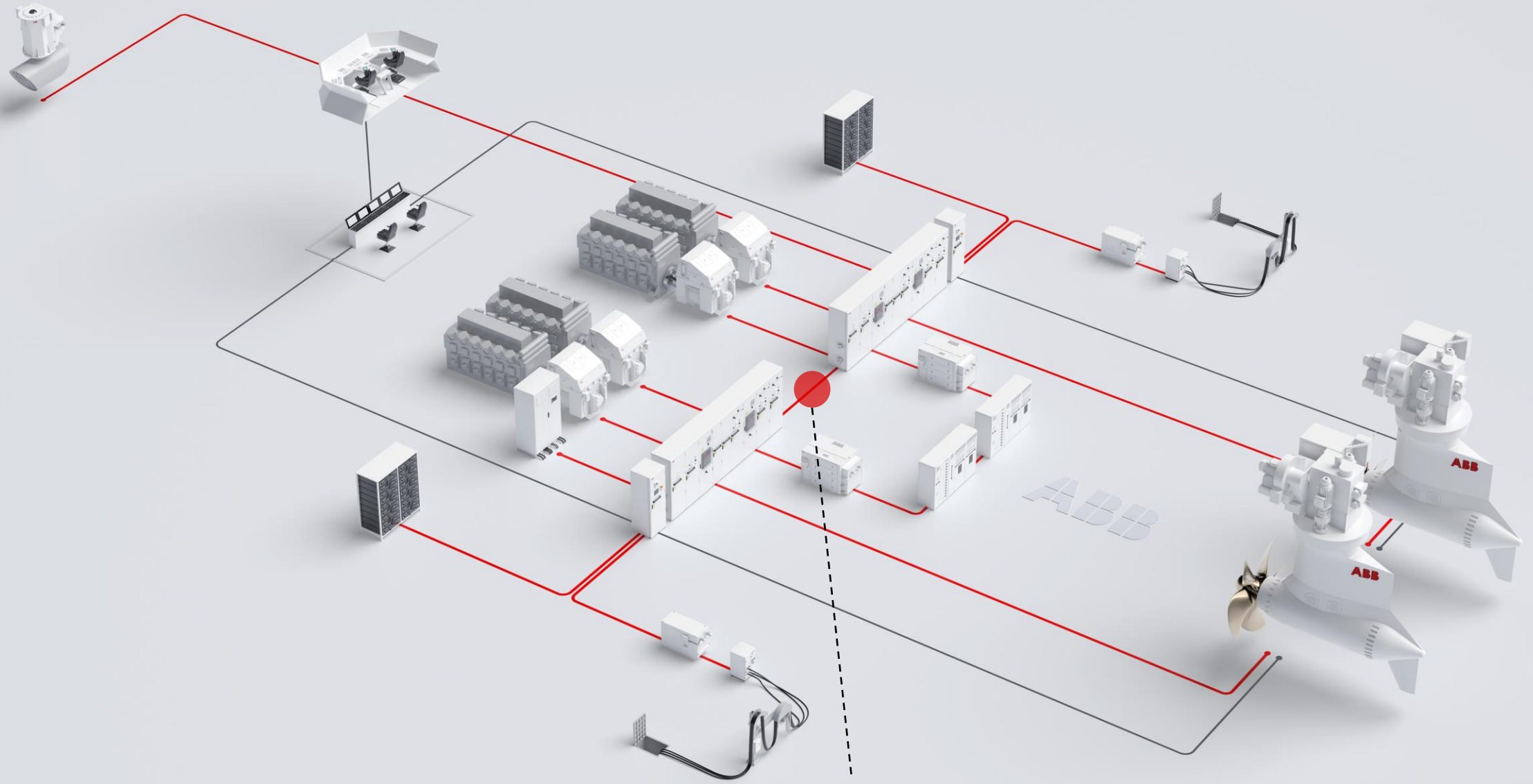


Battery selection



Electrical system design



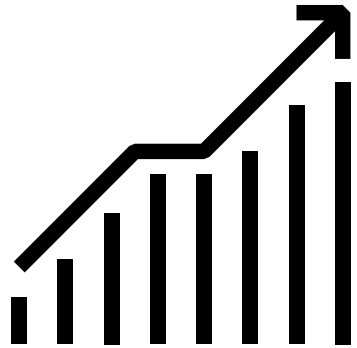


**Power System**  
(AC or DC)

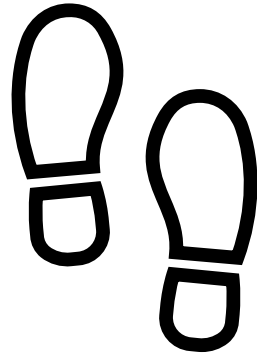
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# How to make an optimised system?

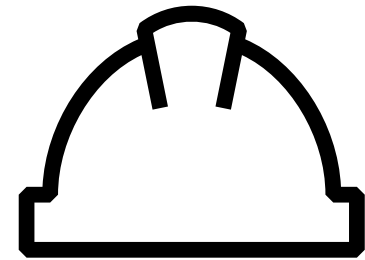
Three main concerns



**Efficiency**



**Footprint**



**Safety**

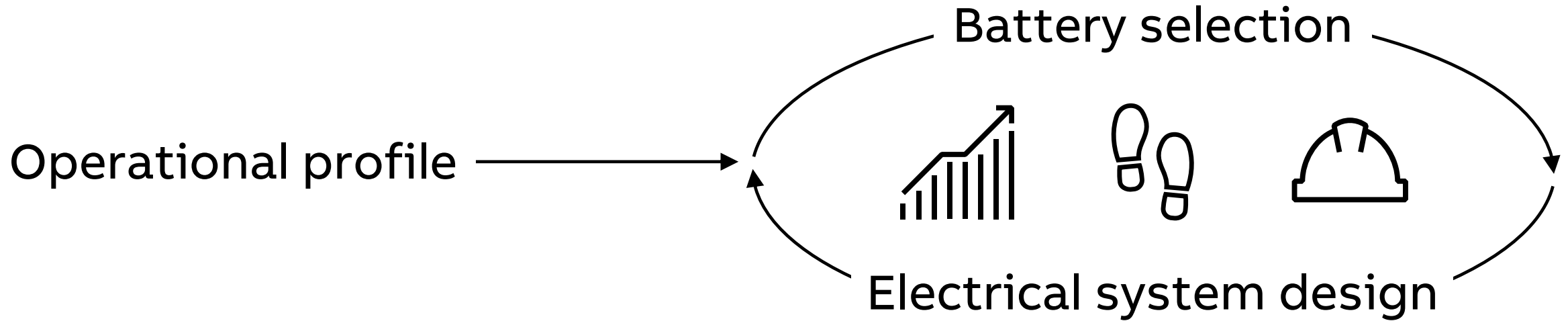
# Safety





# Making the system work

Considerations on integrating large battery systems



**ABB**