WHEN TRUST MATTERS

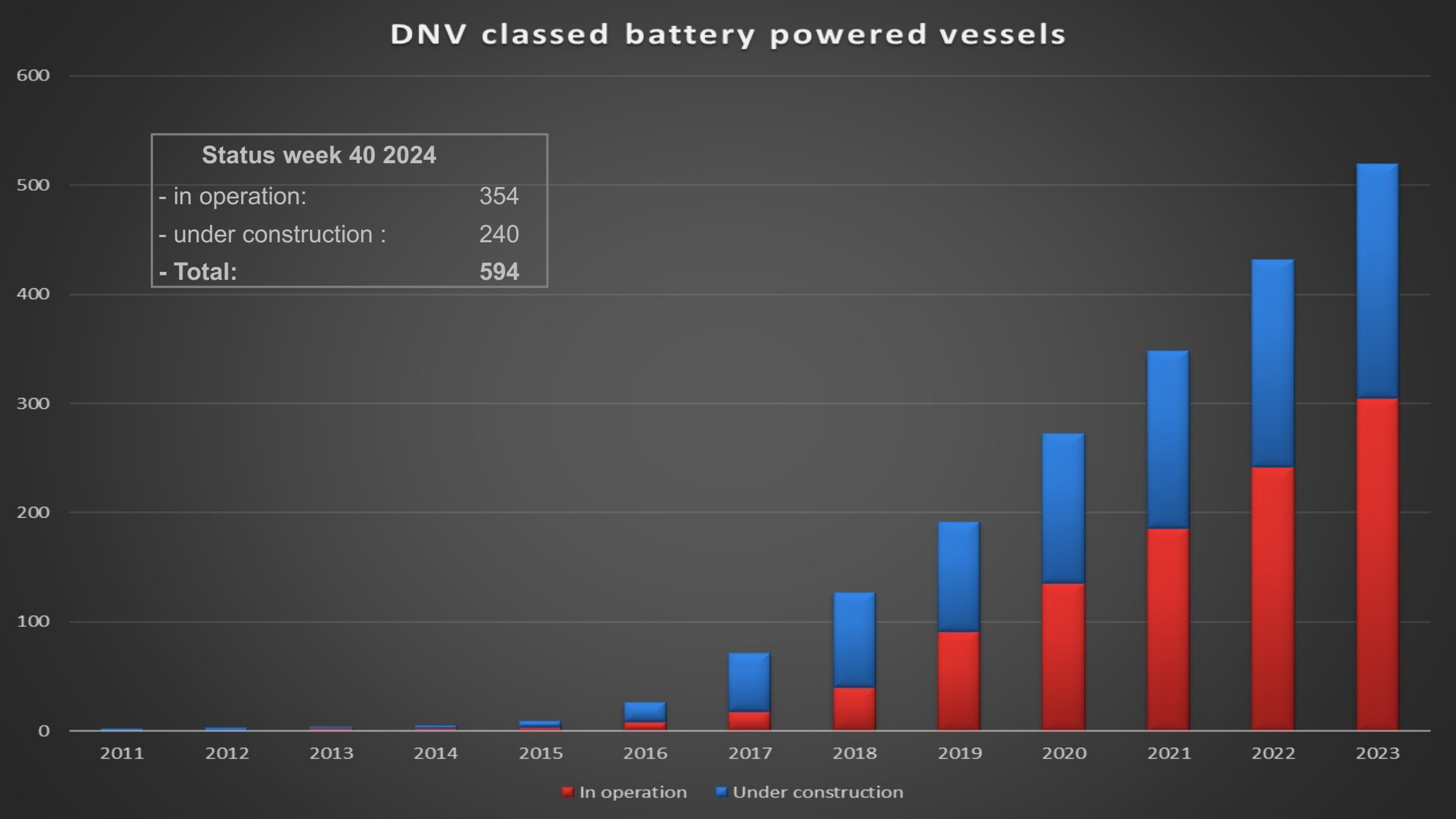
Battery propulsion

Rule development and learning from incidents – Interferry 2024

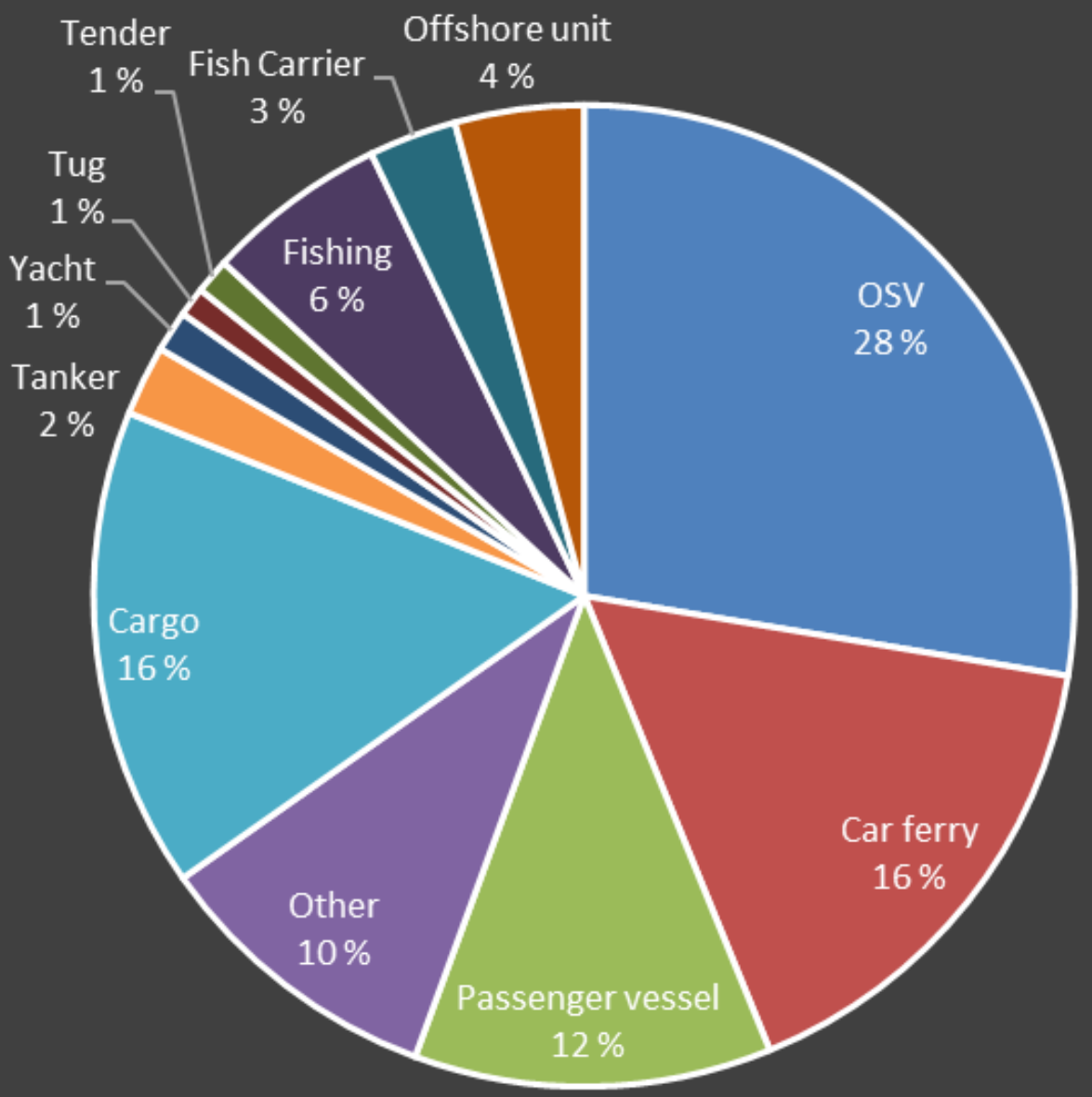
Sverre Eriksen, Senior Principal Engineer – Electrical Systems, DNV Maritime

29 October 2024

DNV classed battery powered vessels



Vessel types

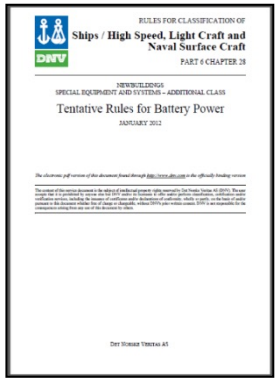


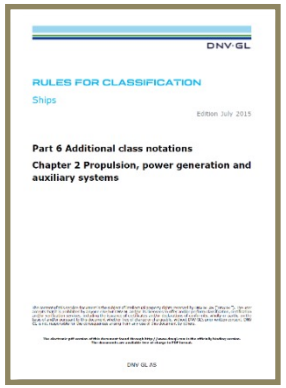
Examples of Ferries/Passenger vessels with batteries

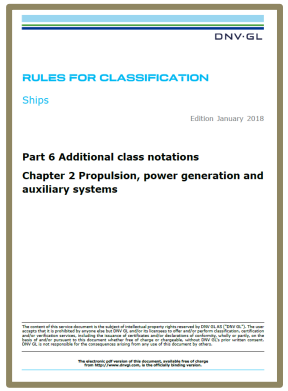
build or under construction to DNV Class

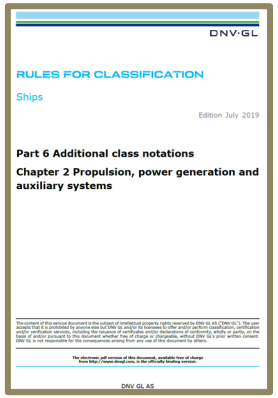
DNV

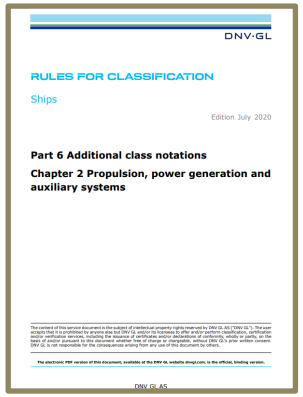
Class rule development for battery powered vessels

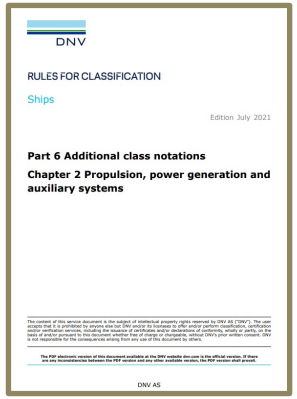


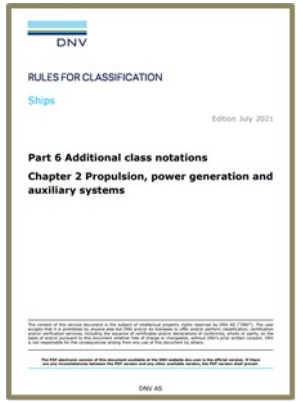






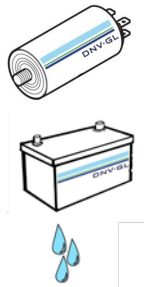


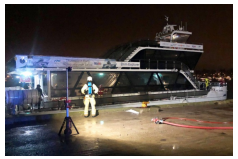




Battery(power)

Battery(safety)

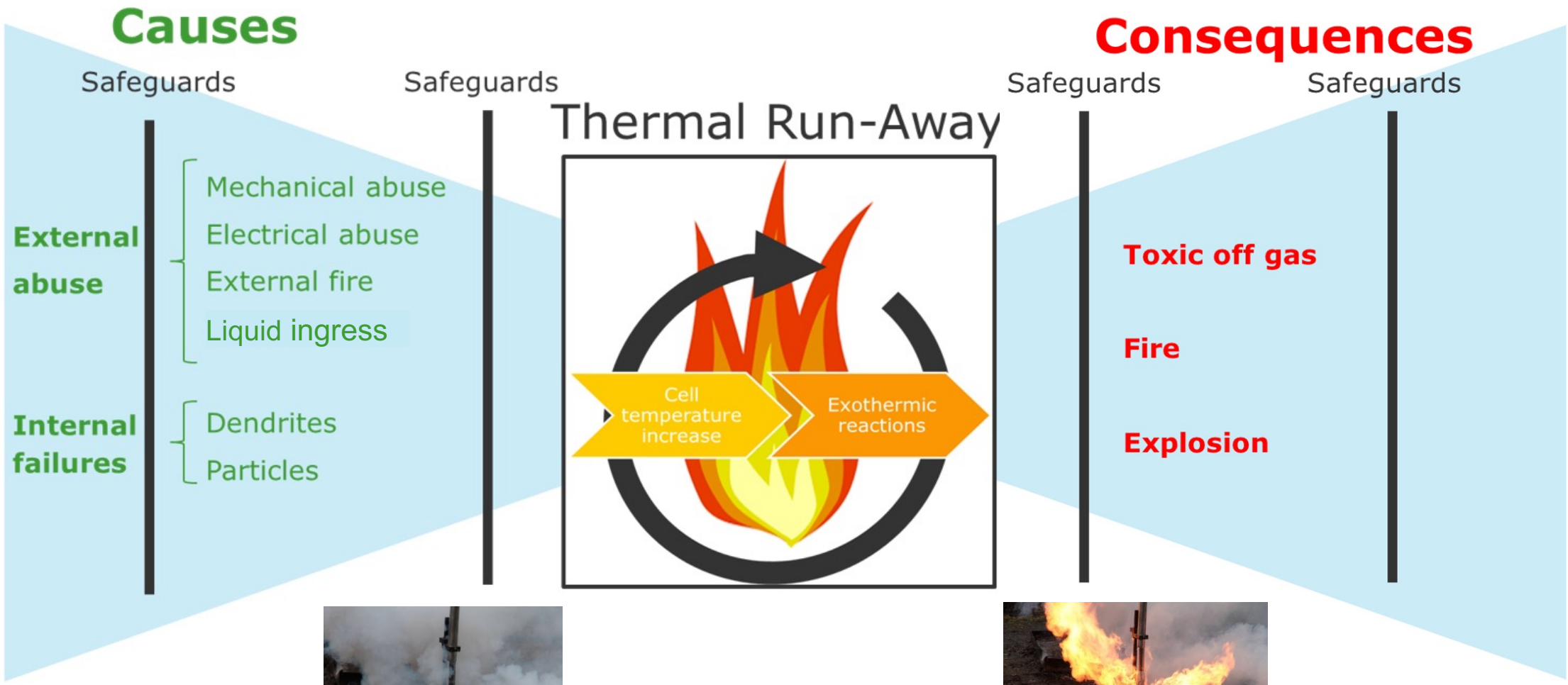




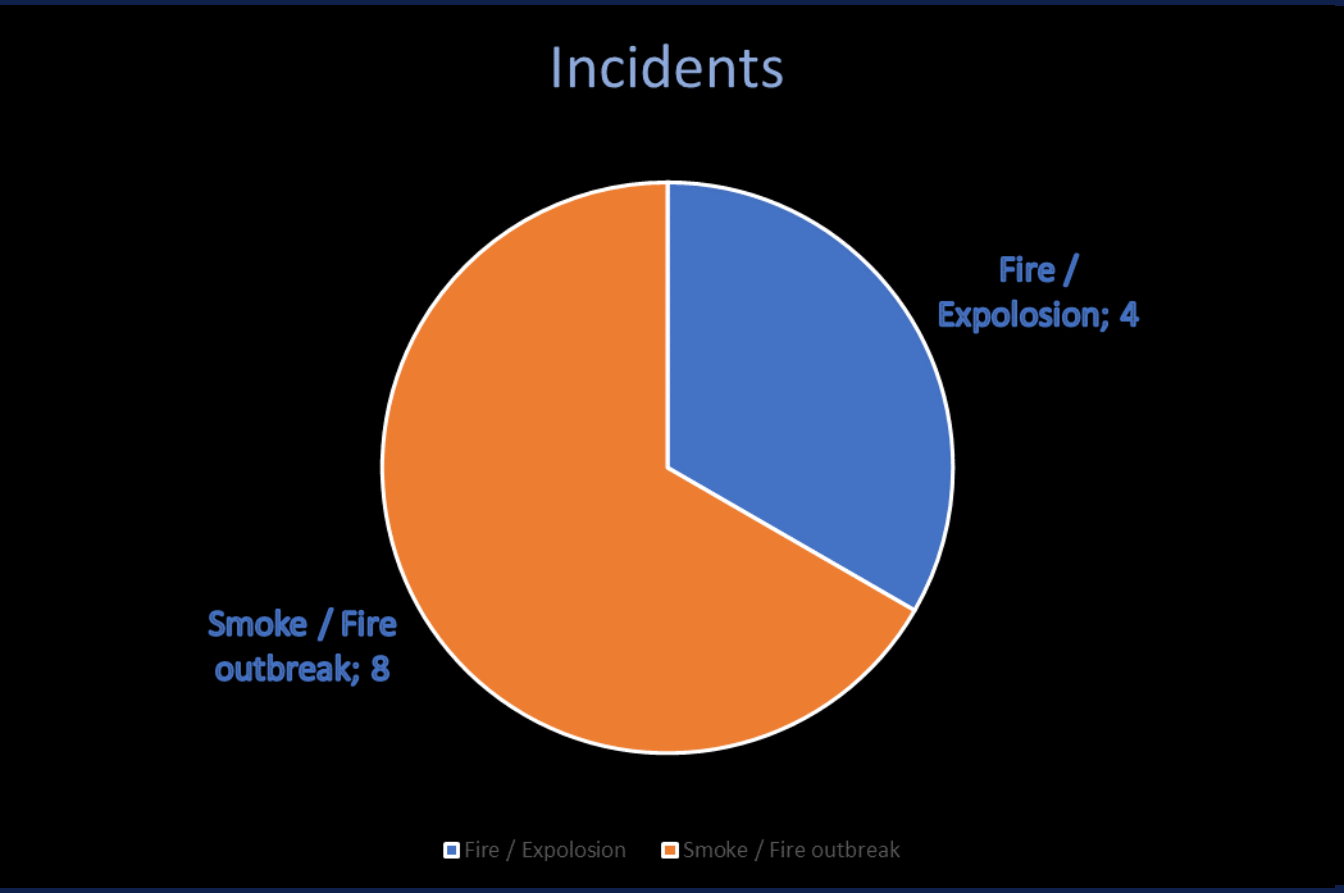
2012 → 2015 → 2018 → 2019 → 2020 → 2022 → 2023

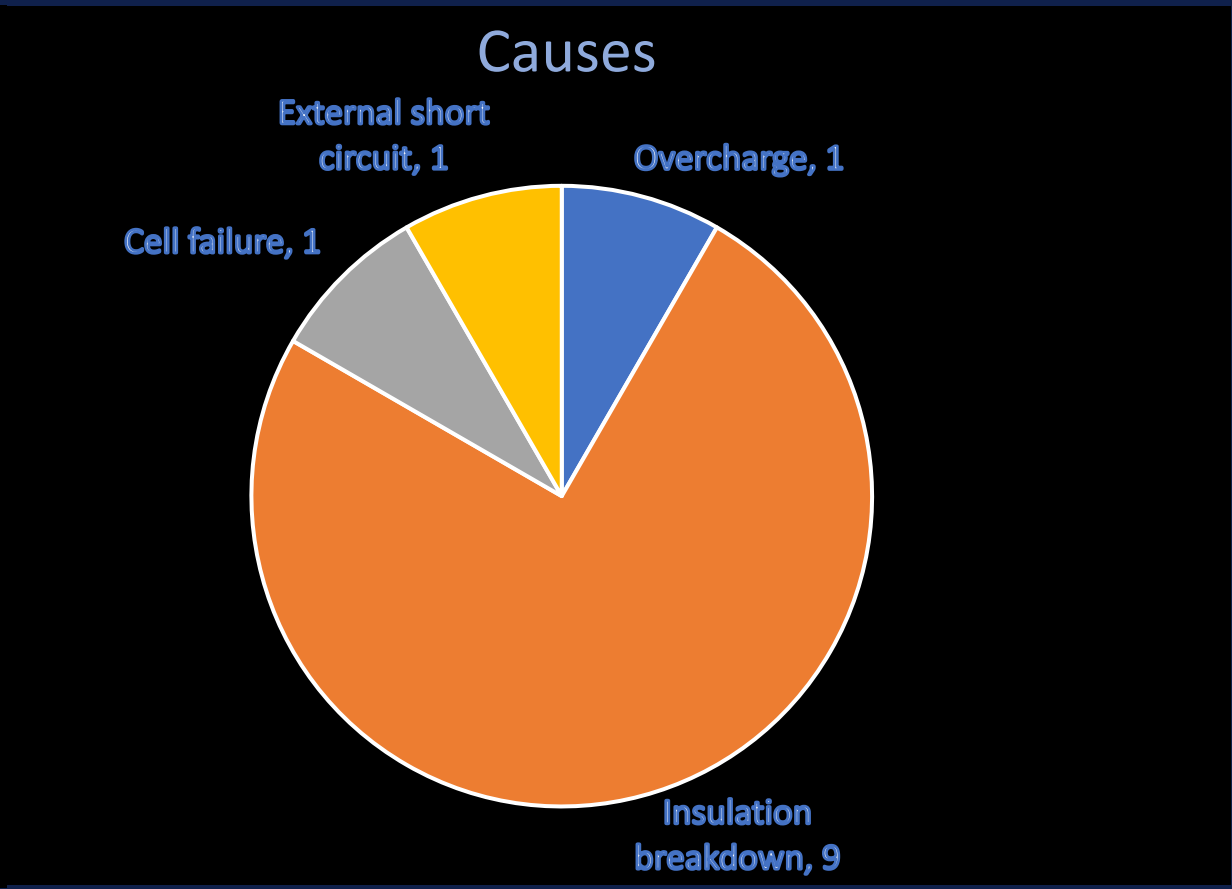
Skoleskipet Bum
Forebyggende Seilas
RS(+)
Brim Explorer

How do batteries cause fire and explosion?



Incidents with batteries onboard



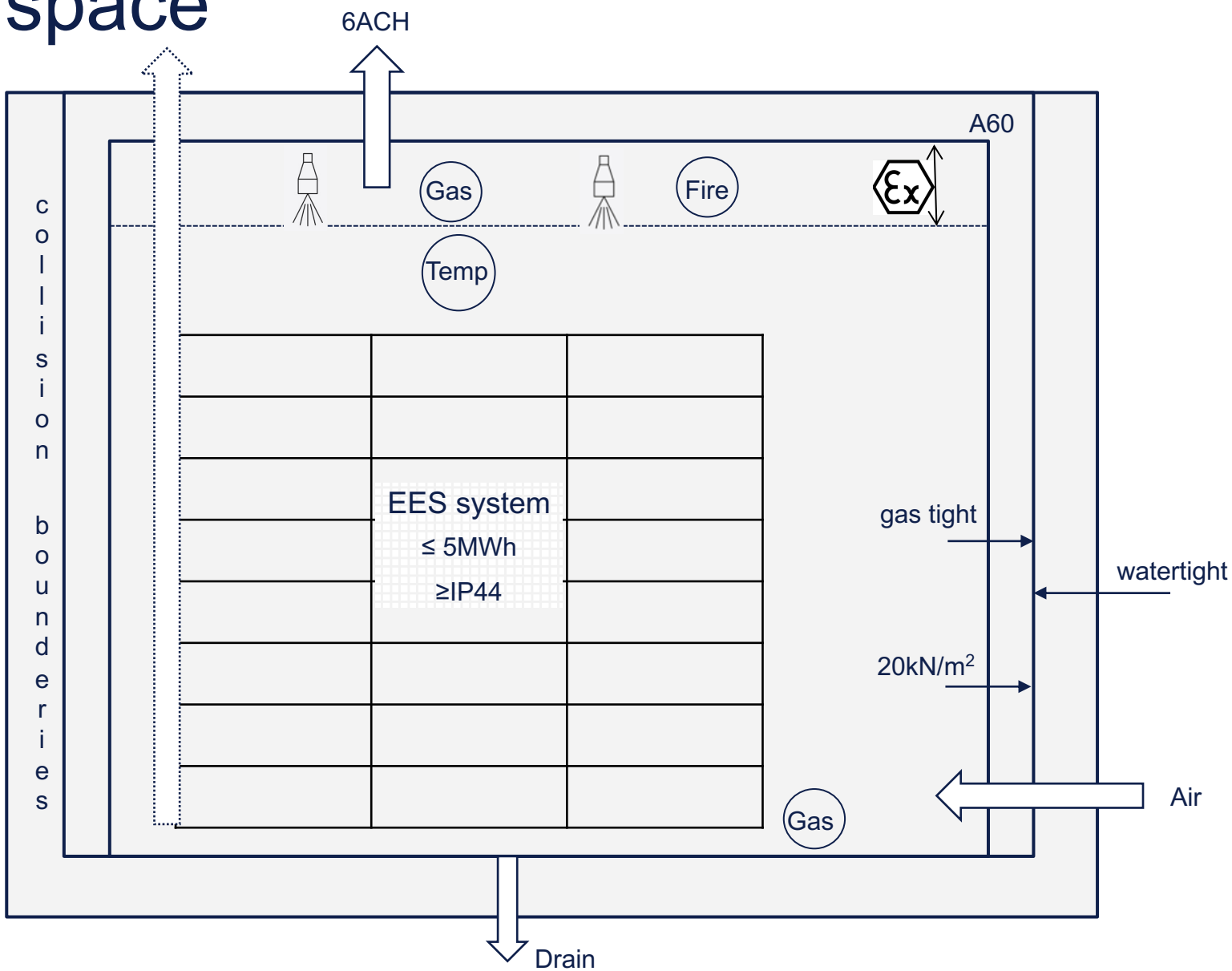


How to prevent insulation break down?

The updated DNV class rules adds on:

- strengthened requirements of environmental protection of battery room
- strengthened requirements for ventilation ducts arrangement
- watertight boundaries of battery room when located below the water line
- ingress protection (IP) of the battery system -> min IP 44
- electrical insulation protection of the battery system
- strengthened requirements for liquid cooled battery systems

Safe EES space



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