

The logo consists of three red circles, each containing a white letter: 'S', 'C', and 'S' from left to right.

WINGD

A large cargo ship is shown from a front-quarter perspective, sailing on a dark sea under a dramatic sunset sky. The ship is surrounded by a complex, glowing blue digital interface with various circular and linear elements, suggesting IoT connectivity. A bright vertical beam of light descends from the top center of the frame, passing through the ship's superstructure.

# Deep Sea IoT

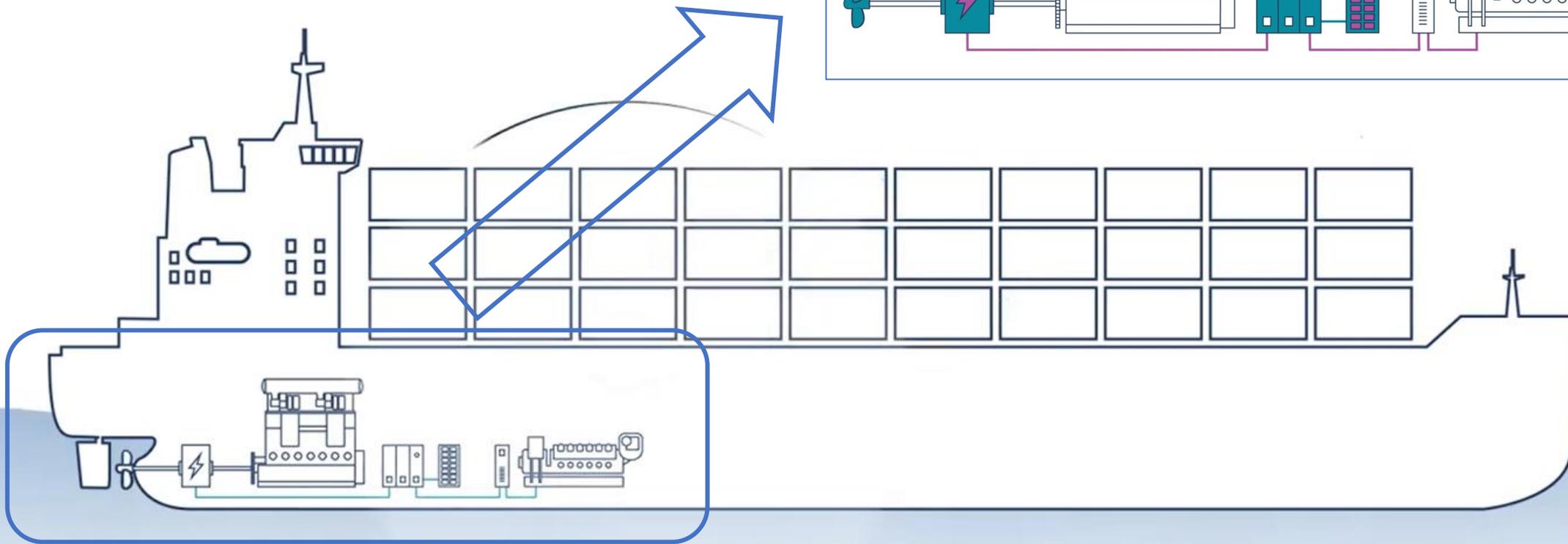
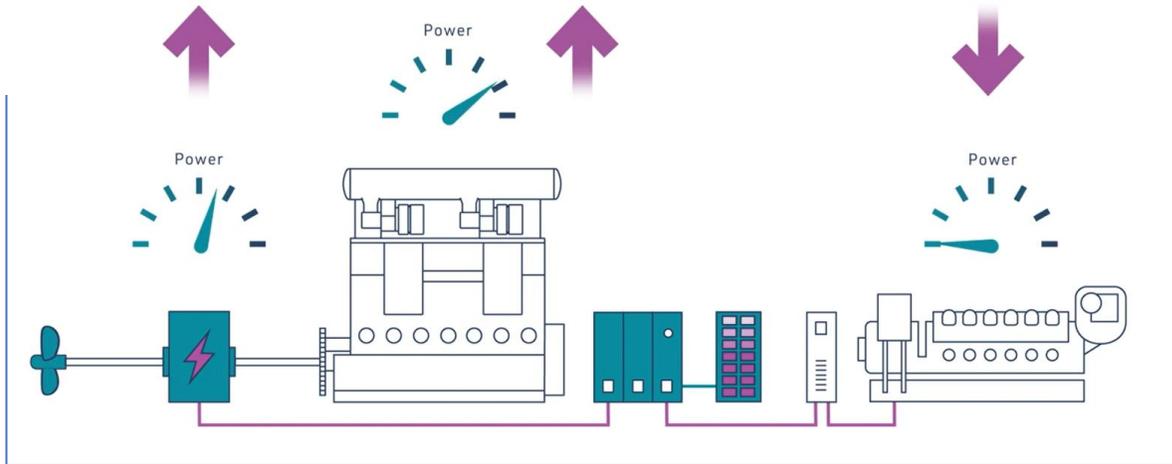
Marine Opportunities and Challenges

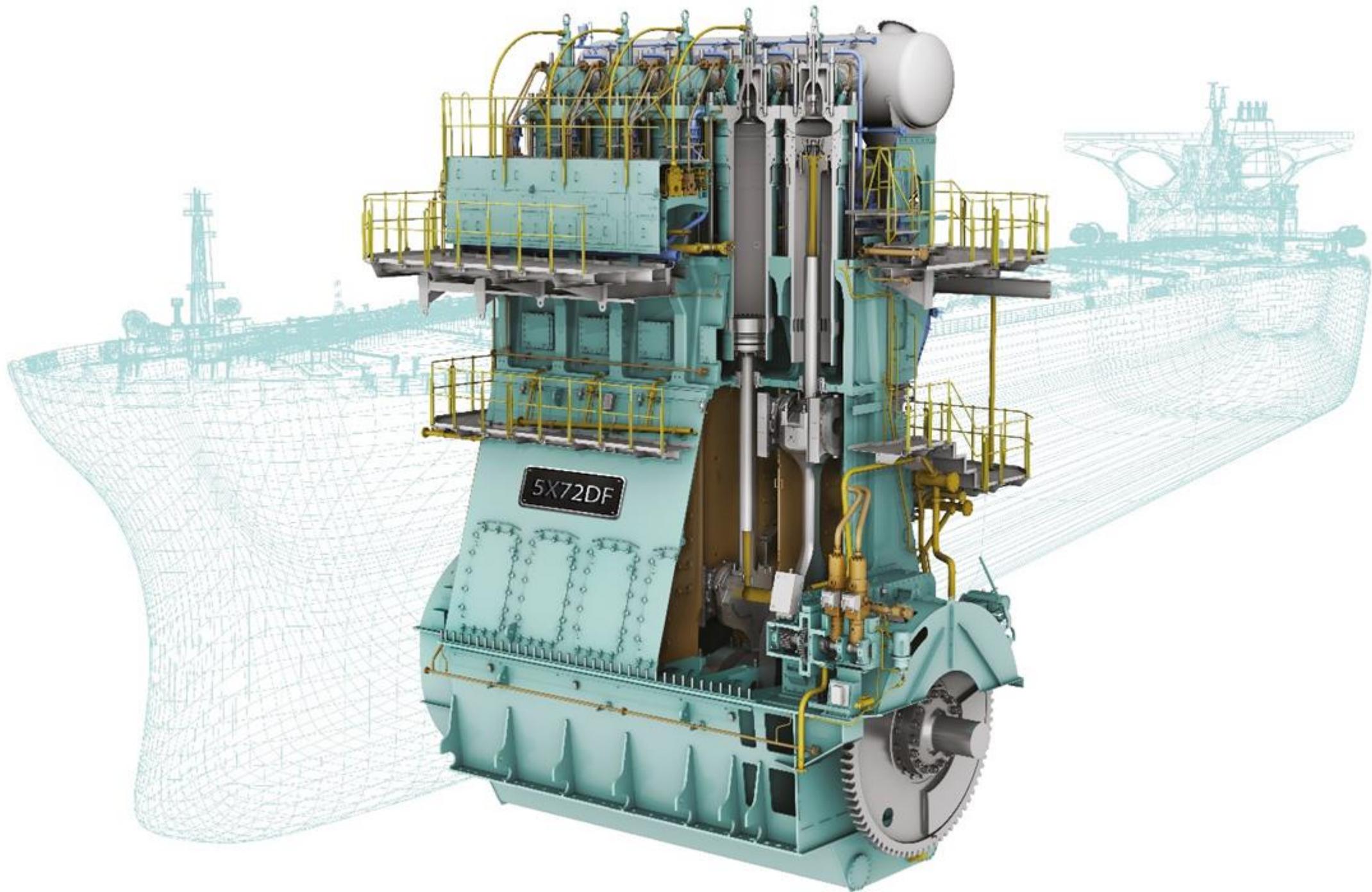


# Optimised power management

Shaft generator & main engine

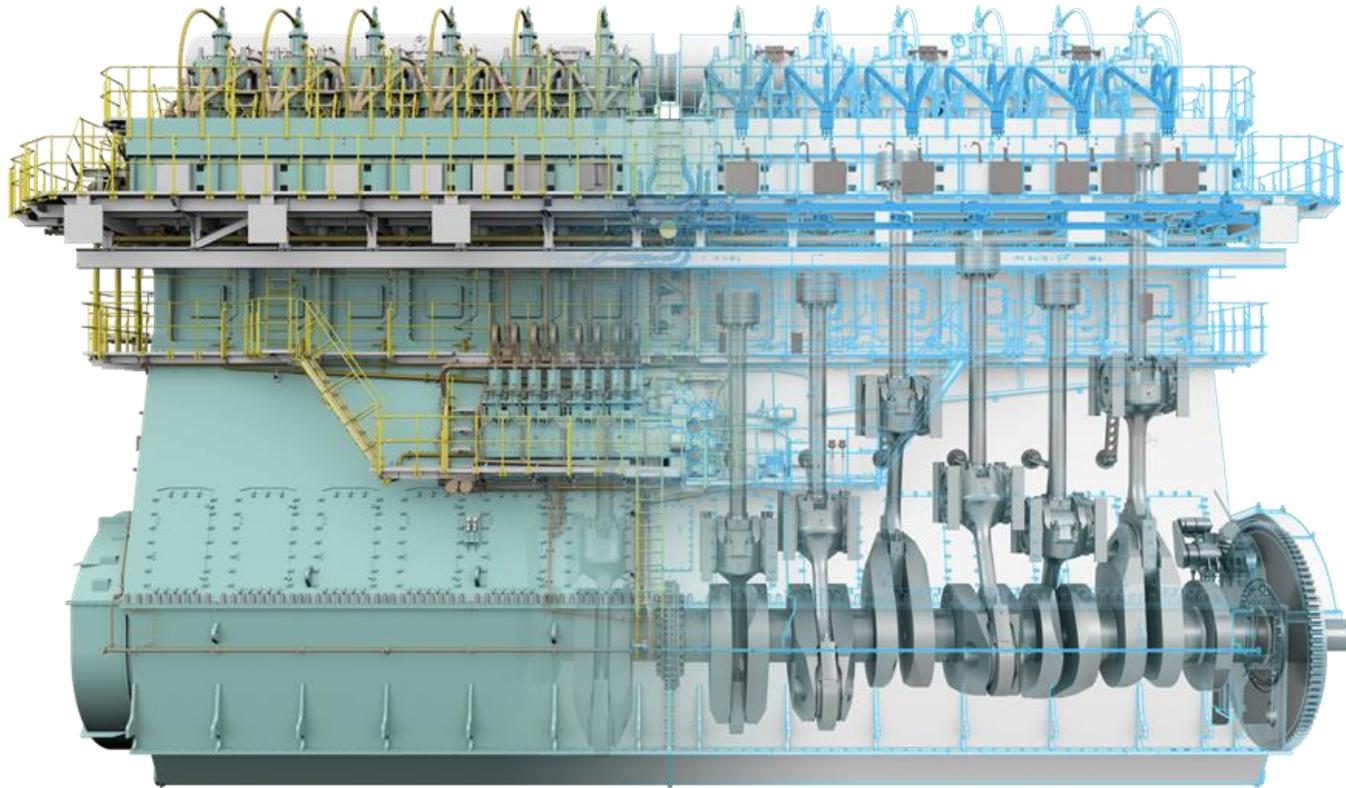
Auxiliary gensets





# The 12X92DF engine

has the height of a 5 storey building



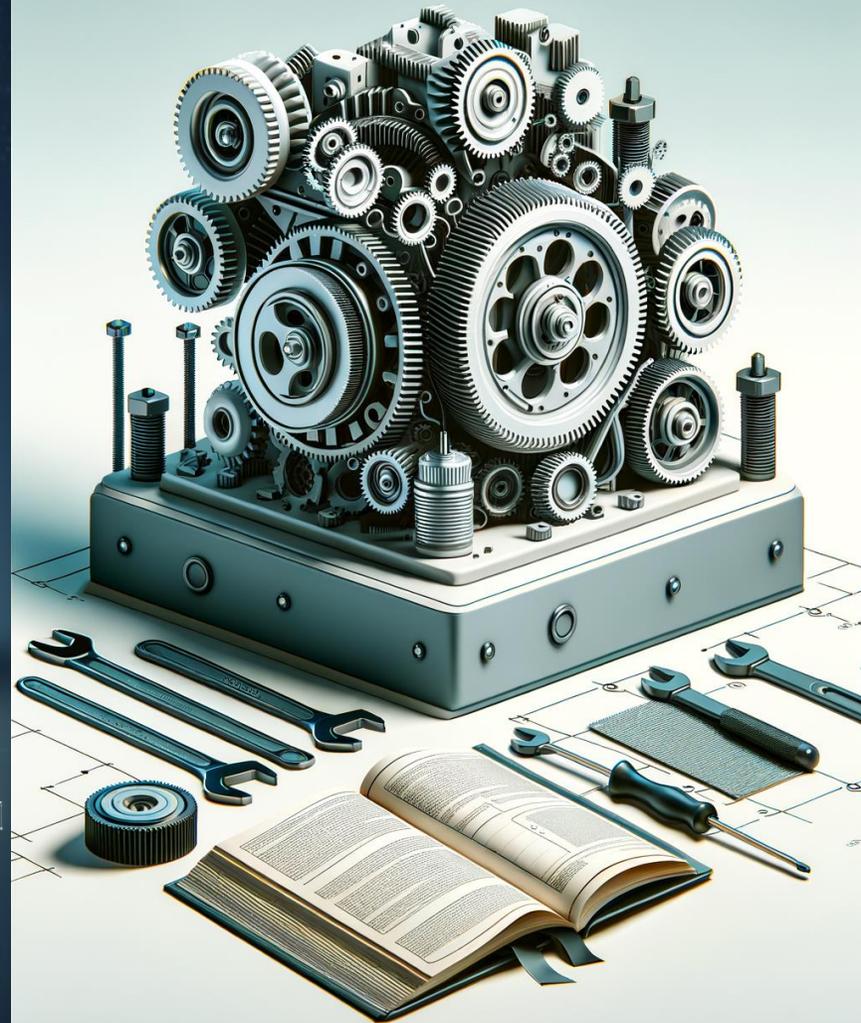
16 m



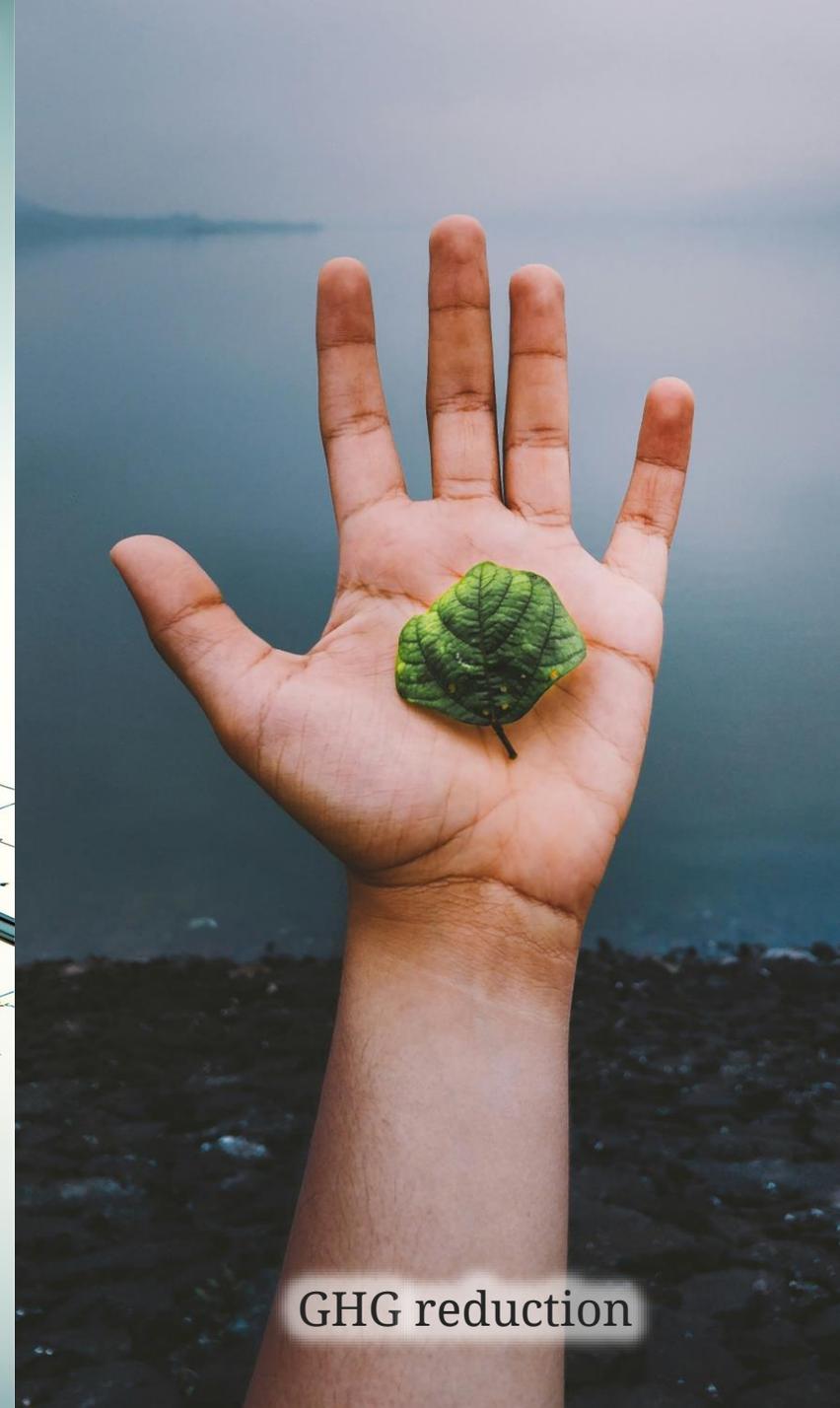
# IoT in Shipping Today



Efficiency

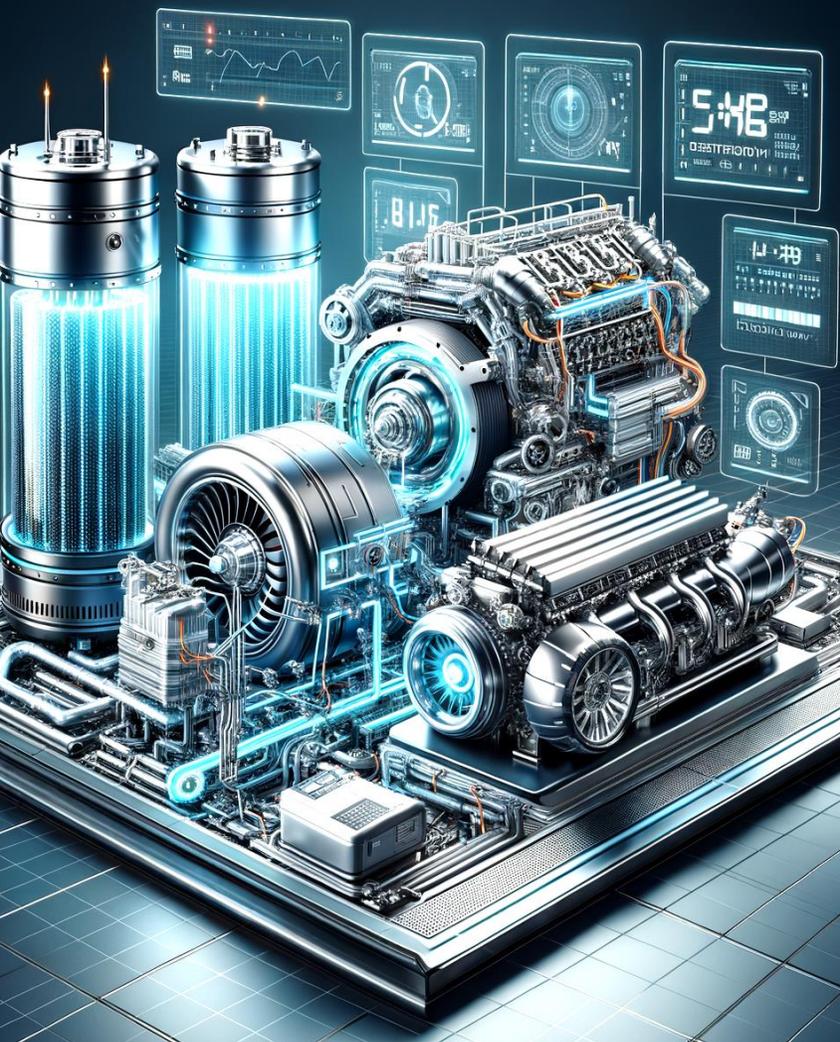


Availability



GHG reduction

# IoT Tomorrow



hybrid energy systems



just-in-time shipping



autonomous shipping

# Deep Sea IoT Challenges



reliability



low bandwidth

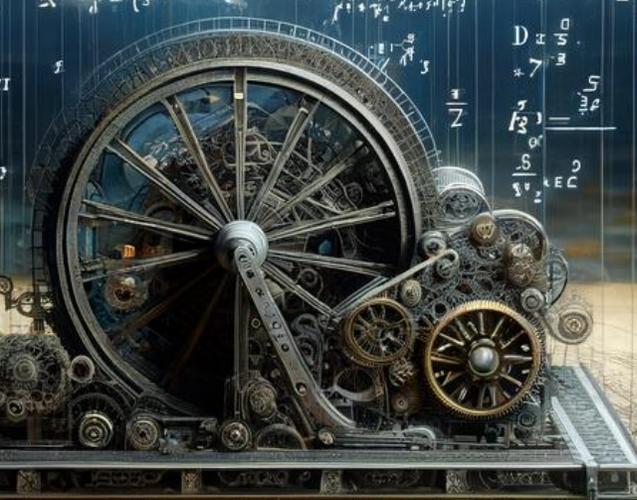
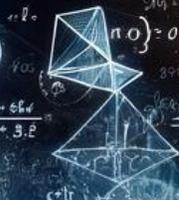


cyber security



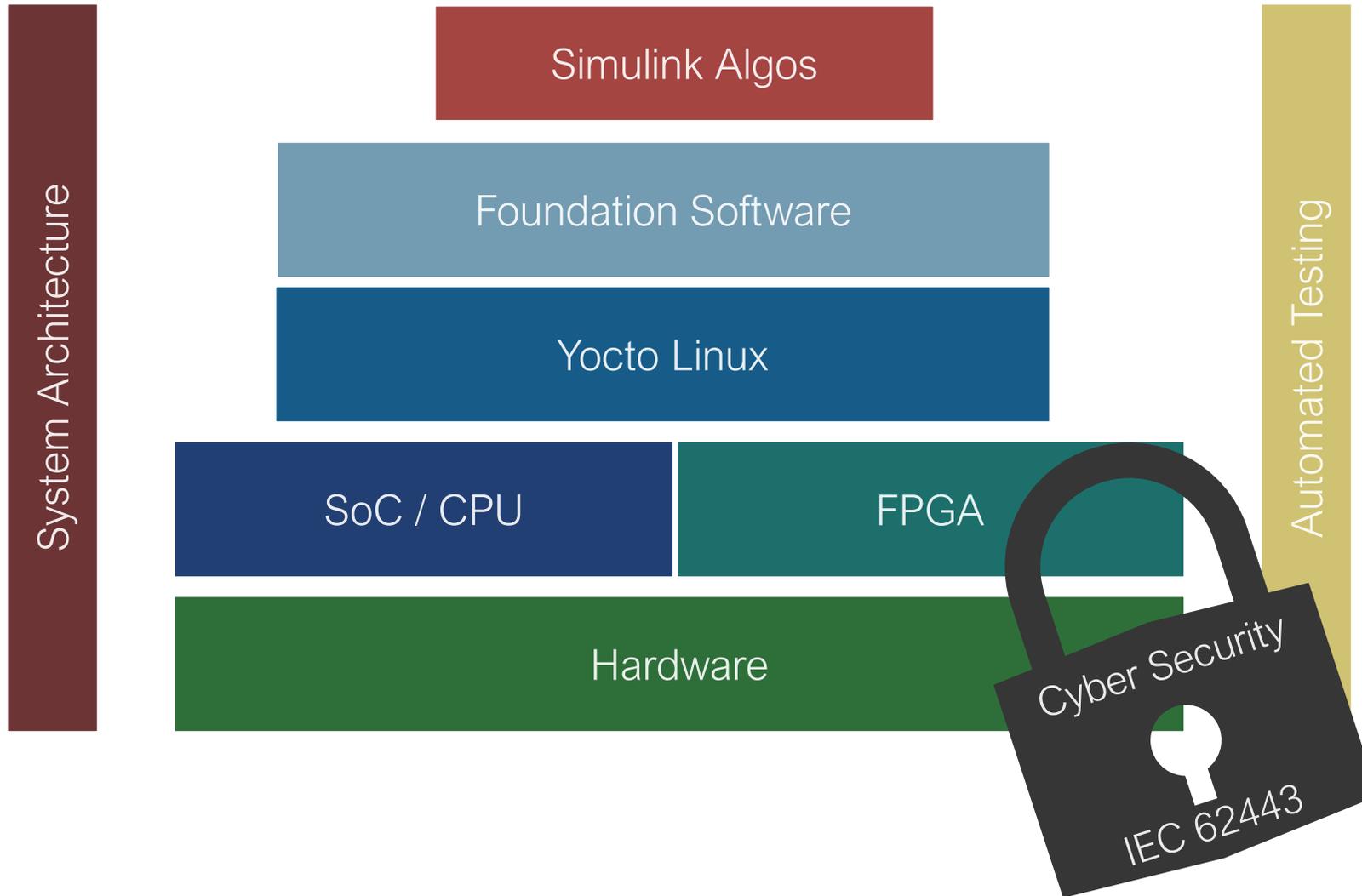
$$\Delta = H = \equiv \left( \text{os. } 3 \right) = \frac{He - B = HeX}{1 - 3 - 2}$$

$$3 \frac{3}{2} = \frac{3}{2} \frac{1}{2} = \frac{3}{4}$$



$$S = \frac{r}{c} = \frac{r}{D} = \frac{0.6}{2} = \frac{A}{H}$$

# Custom Engine Control System



Unit-Type  
L  
H  
012  
ID

**WIN GD**

Cylinder Control Unit  
Rev. 1.2

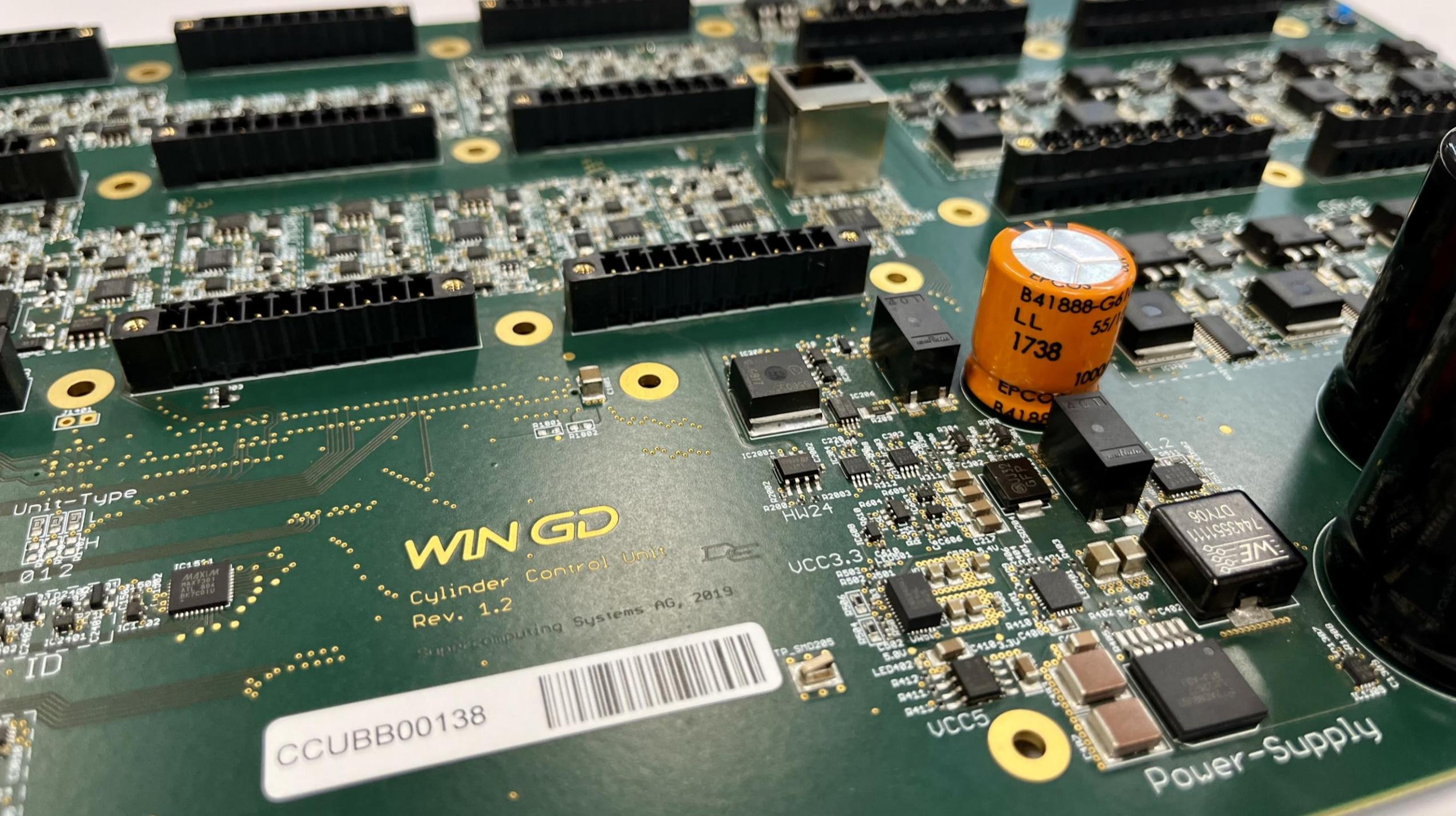
Supercomputing Systems AG, 2019

CCUBB00138



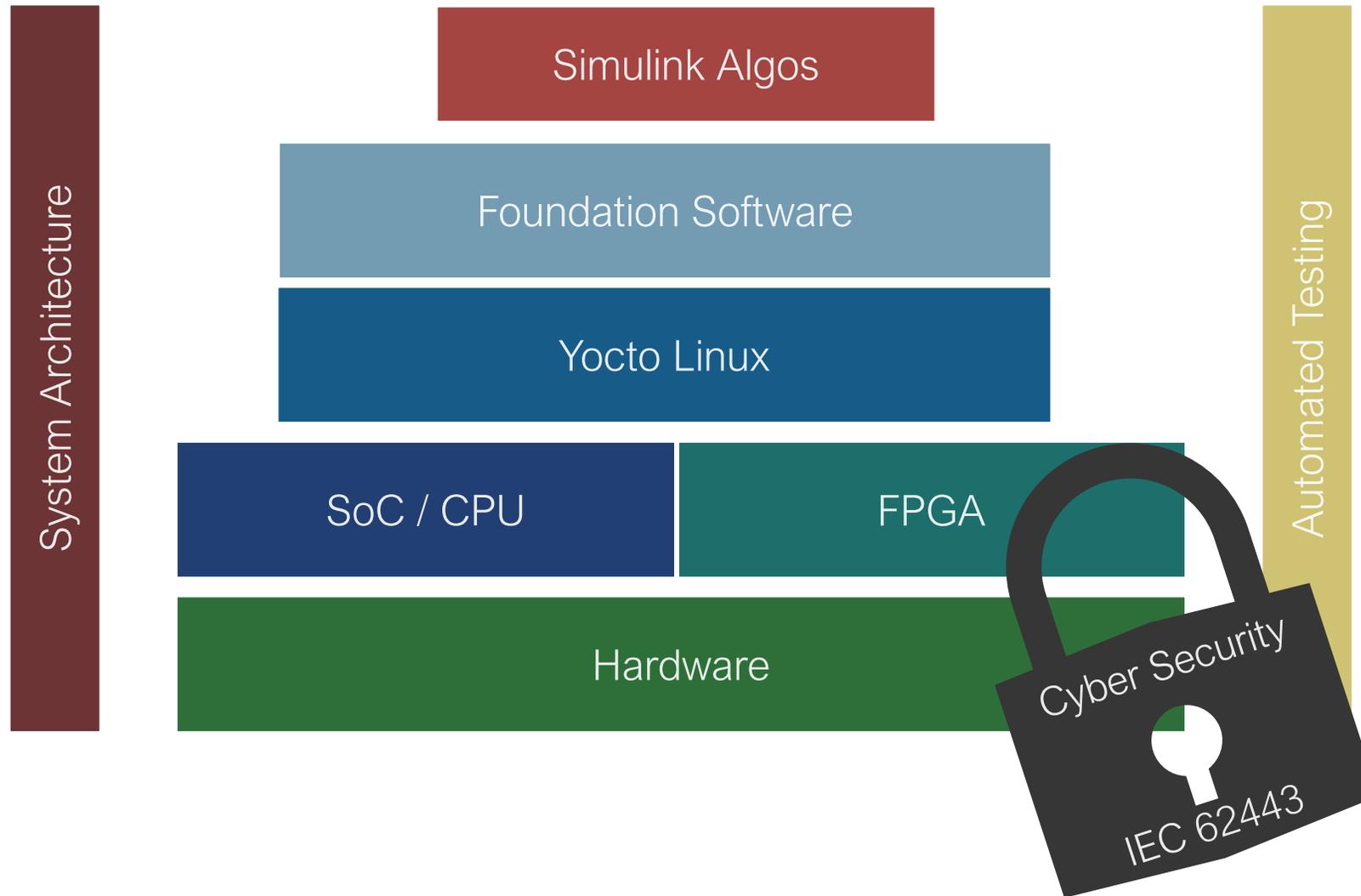
EPCOS  
B41888-G6  
LL 55  
1738  
1000  
EPCOS  
B41888

Power-Supply





# Custom Engine Control System

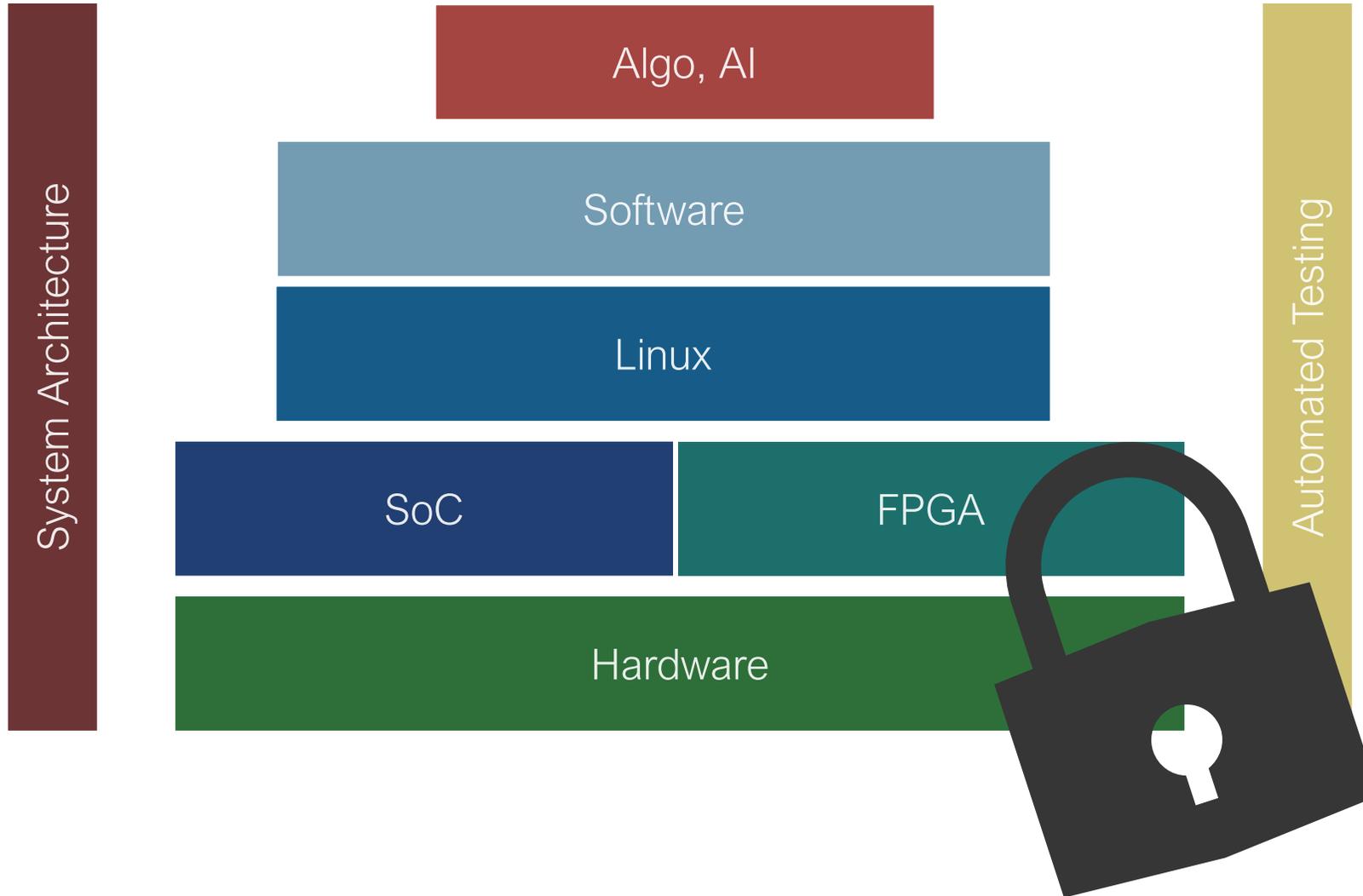




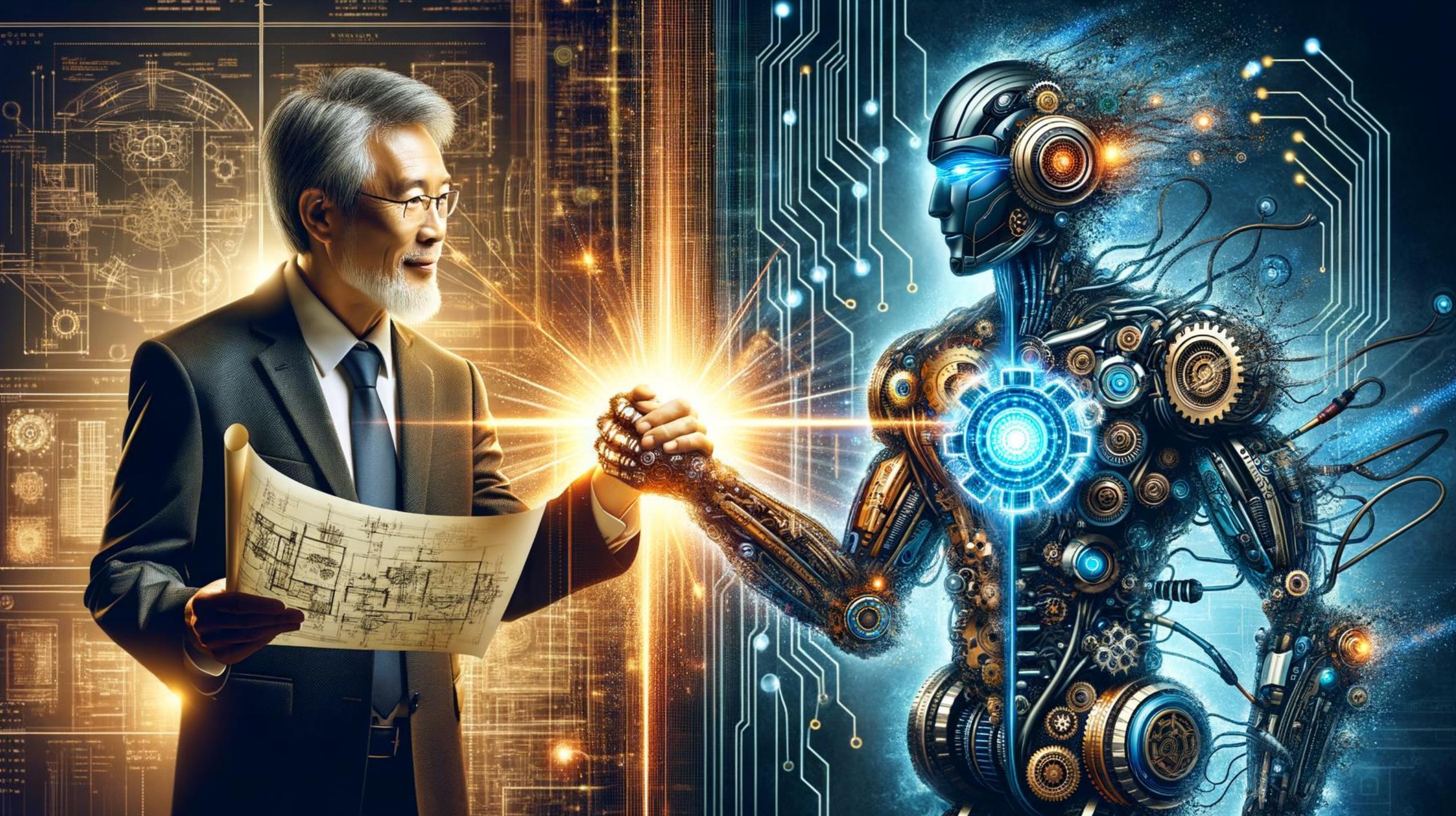
Custom <

super computing

> Systems







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super computing systems



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**Vision becomes reality.**

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