

Swedish Road Ferries

part of Swedish Transport Administration

The background of the slide is a photograph of a ferry at night. The ferry's orange hull and white cabin are visible on the left, with a red circular logo featuring a crown and a stylized 'T' on the side. The ferry is on a body of water, and a distant shoreline with trees is visible under a dark blue sky. A green light is visible on the water in the distance.

Our Mission

Färjerederiet shall provide and develop sea route traffic with road ferries, as well as operate and maintain ice roads.

But why?



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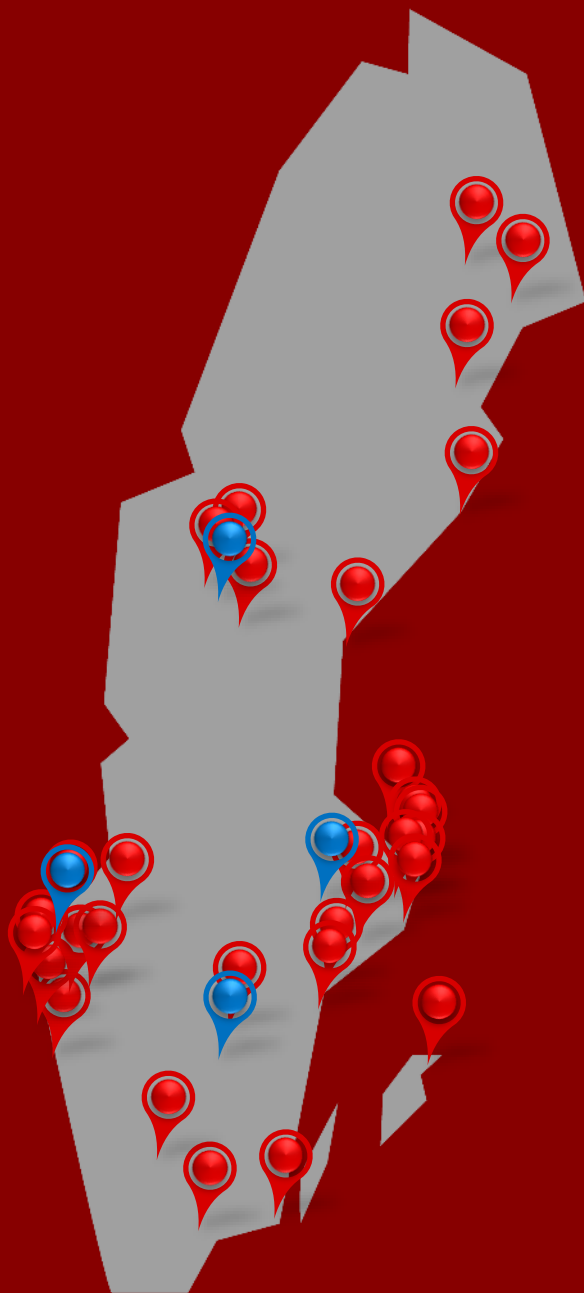
The Hönö route

5 ferries, 4 million passengers per year

The Högsäter route

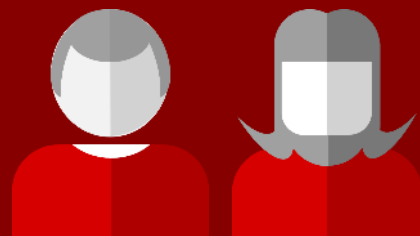
35 000 passengers per year, 75 meters long, no specific timetable, the ferry leaves when there are customers waiting.





68 ferries

40 ferry routes
4 shipyards/workshops



800 employees



120 mEUR
annual turnover



13 000 000
vehicles



23 000 000
passengers



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Our Challenges



- An aging fleet
- Unique vessels – no two are alike
- Severe shortage of qualified seafarers
- The climate challenge

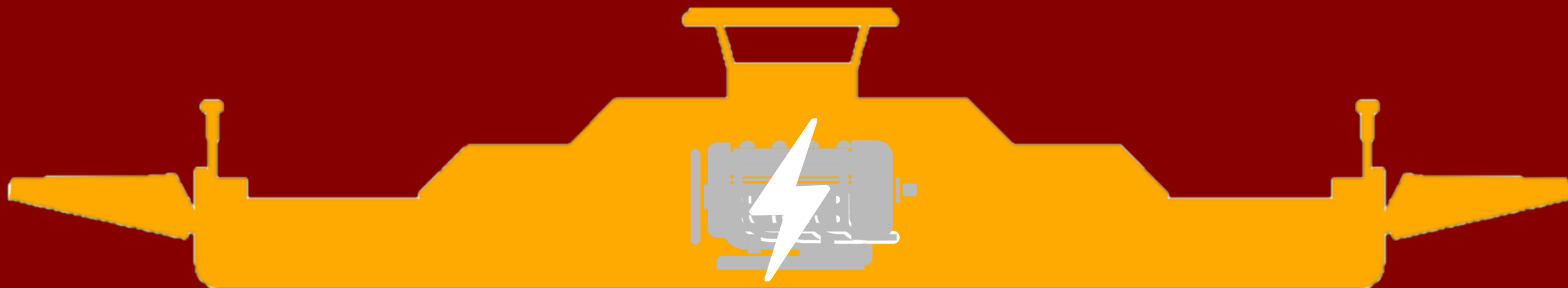


The background of the slide is a photograph of a ferry at night. The ferry is orange and has a red circular logo with a white crown and a stylized 'F' on its side. The ferry is moving across a body of water, and a bright light is visible on the horizon. The sky is dark blue.

2018

Changed Conditions

Färjerederiet shall provide and develop sea route traffic with road ferries, as well as operate and maintain ice roads with net-zero greenhouse gas emissions by 2045 at the latest.



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Strategic Plan Vision 45

Turning the yellow road ferries green



2020

Electrification of two cable ferries.

New bridge layout.

Digitized timetable.

Start of several innovation projects.

2025

Electrification, new builds, and conversions according to tonnage plan.

ROC implemented. Current crew to be certified.

The first smart ships delivered. App for "Ferry on Demand"

Optimized power consumption. Several road ferries to have a system for predictive based maintenance.

2030

Optimized fuel consumption using AI. CO2 goal according to Vision 45.

Transitioning our expertise to smart ships.

Remote control and self-navigating ferries with automated safety systems.

Predictive based maintenance is implemented on majority of fleet.

2035

Self-diagnostics system increases sustainability and minimizes pollution.

Newly appointed crew operational.

"Ferry-on-demand" concept operational.

Dividends from smart ships begin to show in form of savings in operational costs.

2040

Optimizing ferry size based on demand.

Individual and customized work schedules.

Autonomous ferries are standard.

Cost shift towards increased ferry traffic.

2045

Zero climate impact and minimal environmental impact using electrical hybridization and climate friendly fuels.

The first operational AI

Customer satisfaction using a dynamic timetable

Sustainable economy for a climate neutral operation.



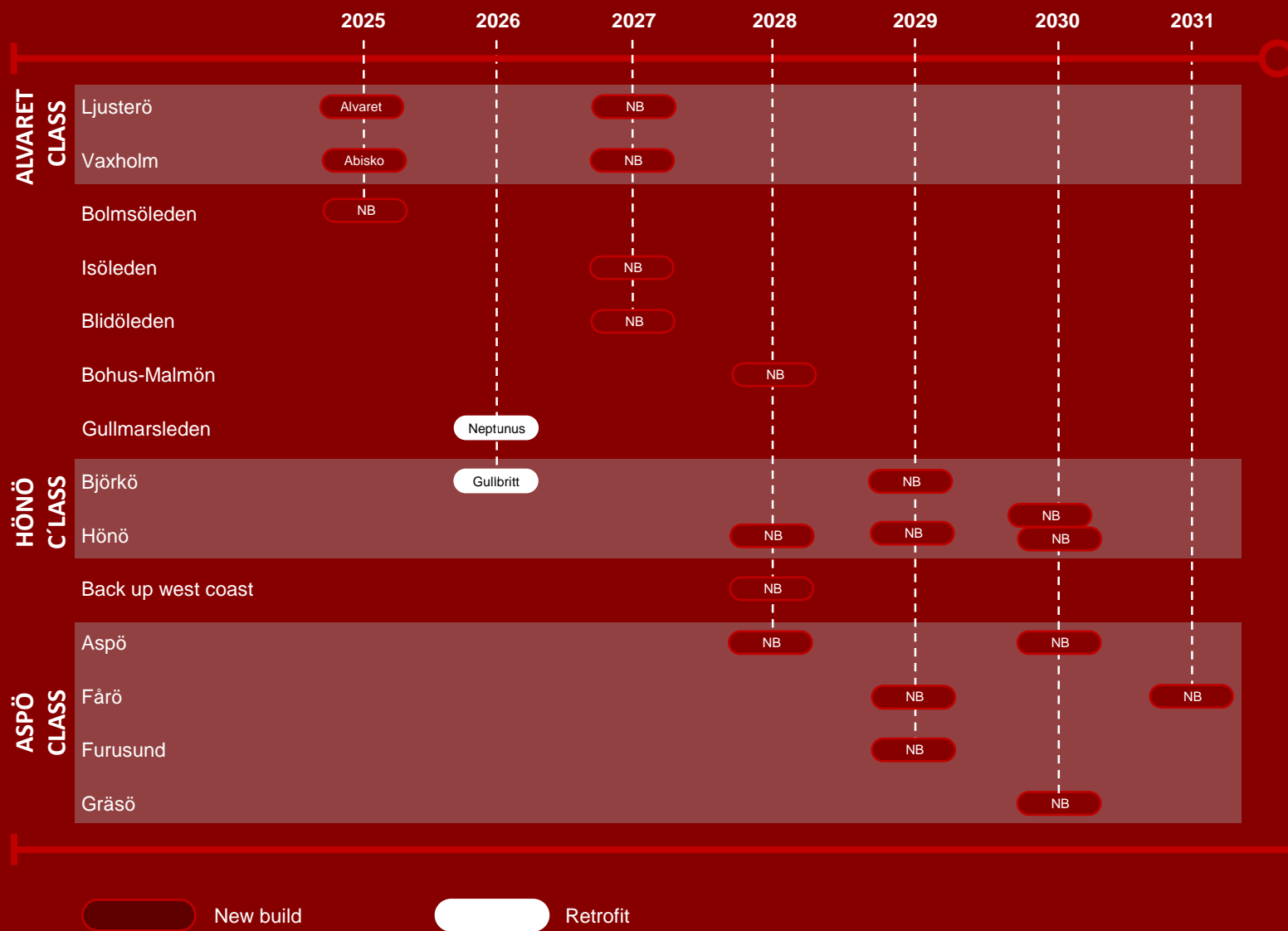
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Our fleet is aging

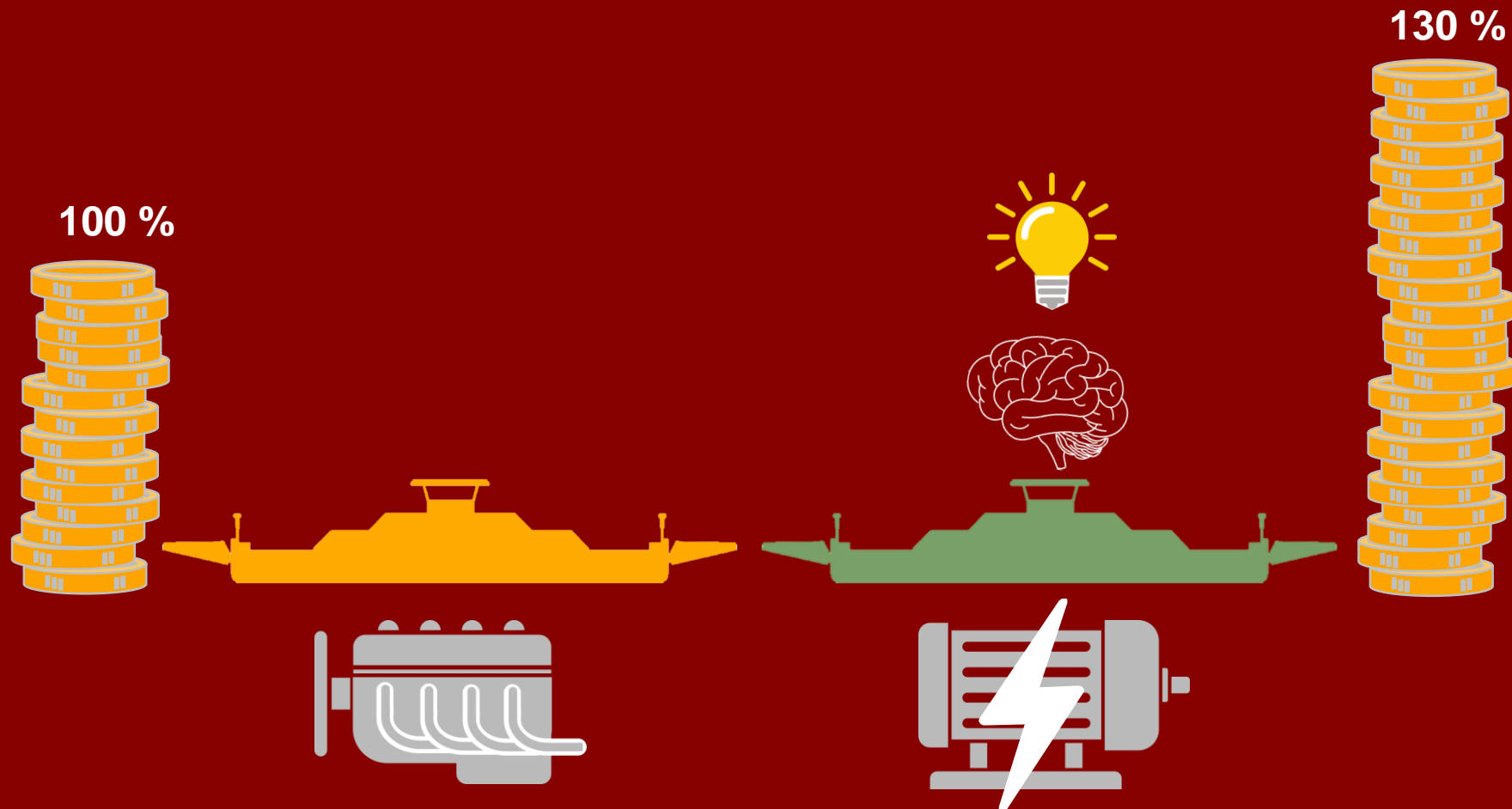
- The average age of our vessels is 39 years.
- In the coming years, large parts will need to be replaced



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Manufacturing cost comparison

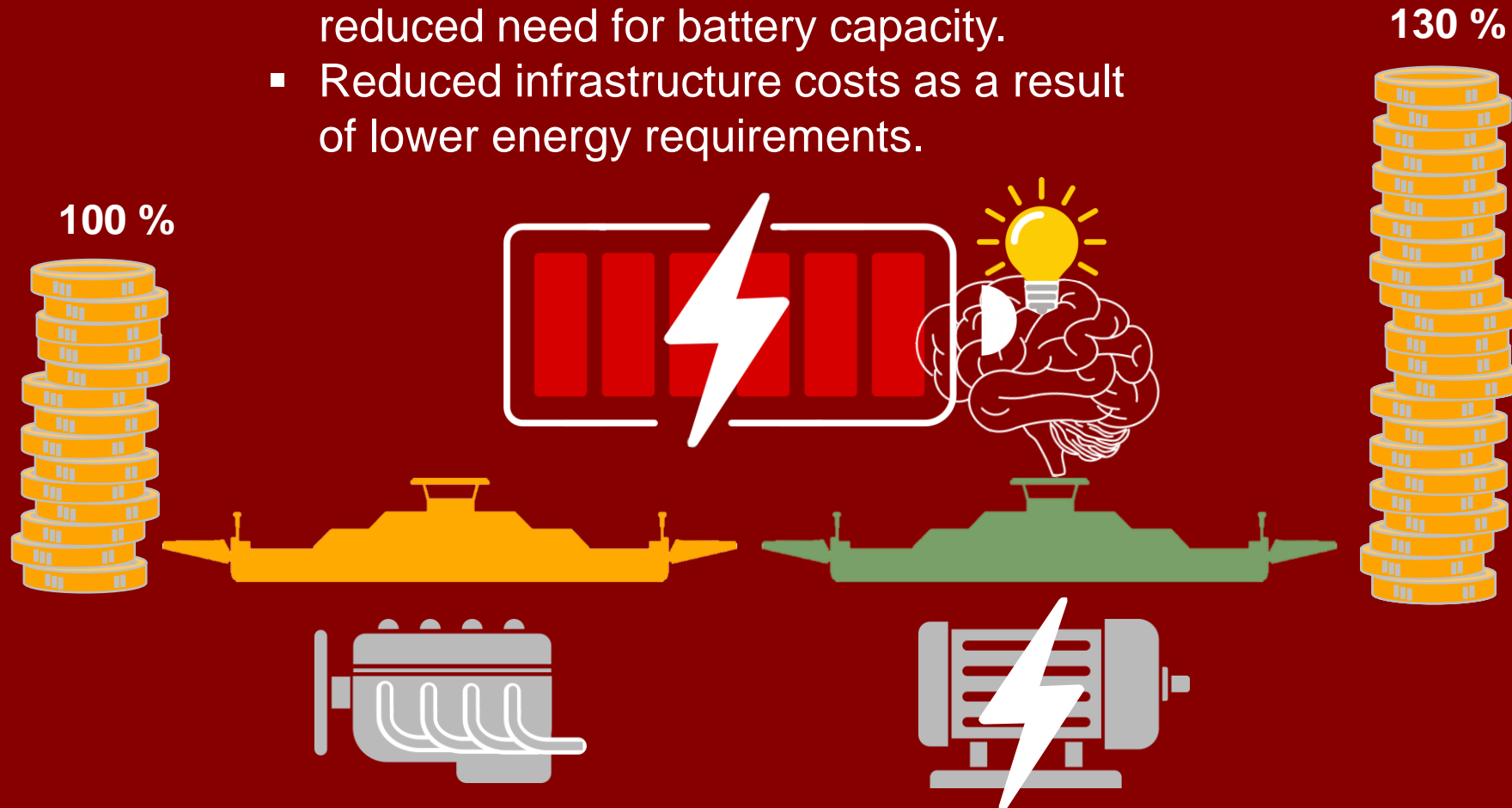


We need to do the shipping smarter



Outcome of the Savings

- Reduced energy costs
- Lower manufacturing costs due to reduced need for battery capacity.
- Reduced infrastructure costs as a result of lower energy requirements.



Unique vessels

- No two are alike
- Upgrades over time have resulted in a lack of standardization



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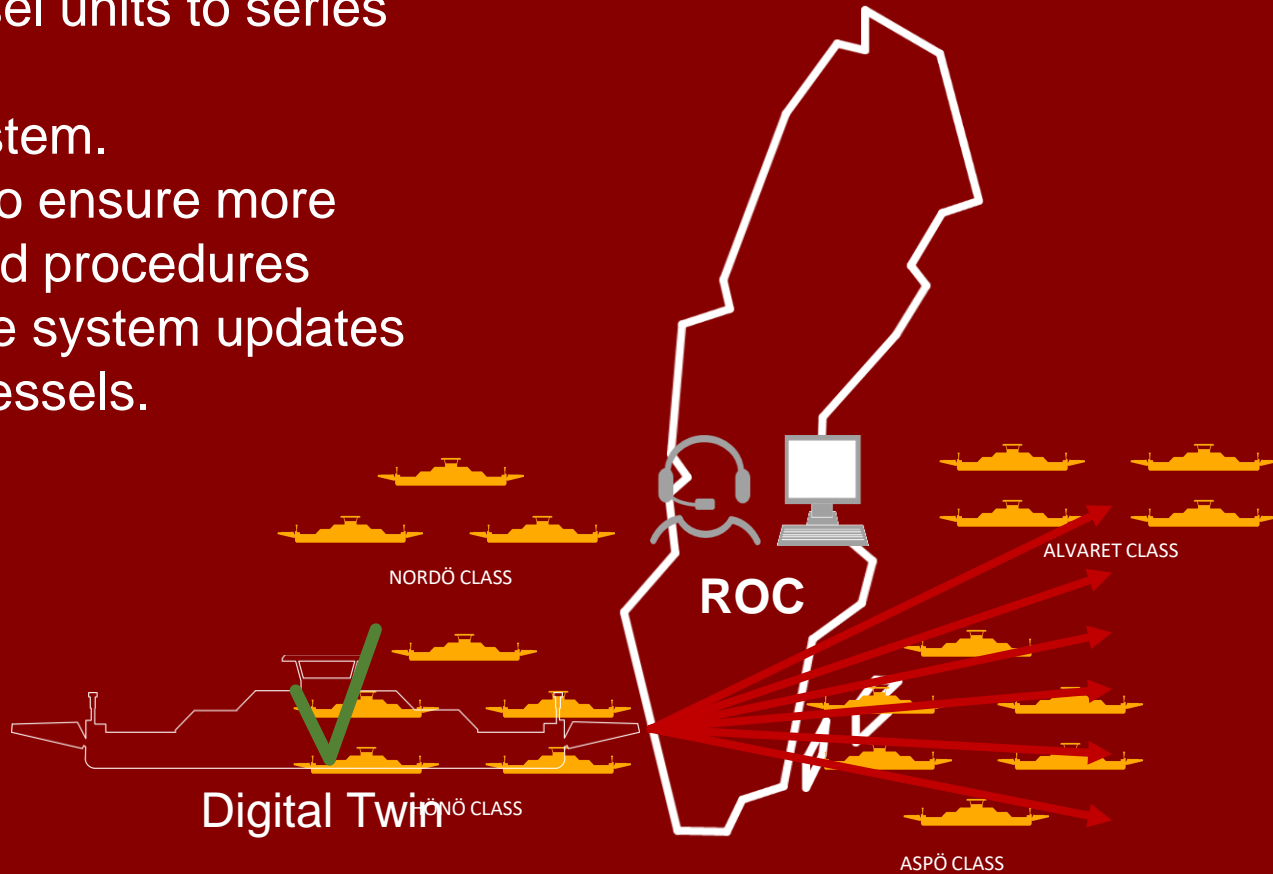
Rethinking Ship Management

- Shifting from building unique vessel units to series production.
- Transform from ferries to ferry system.
- Developed maintenance system to ensure more efficient planning and standardized procedures
- Introducing digital twins to validate system updates before deployment to operating vessels.



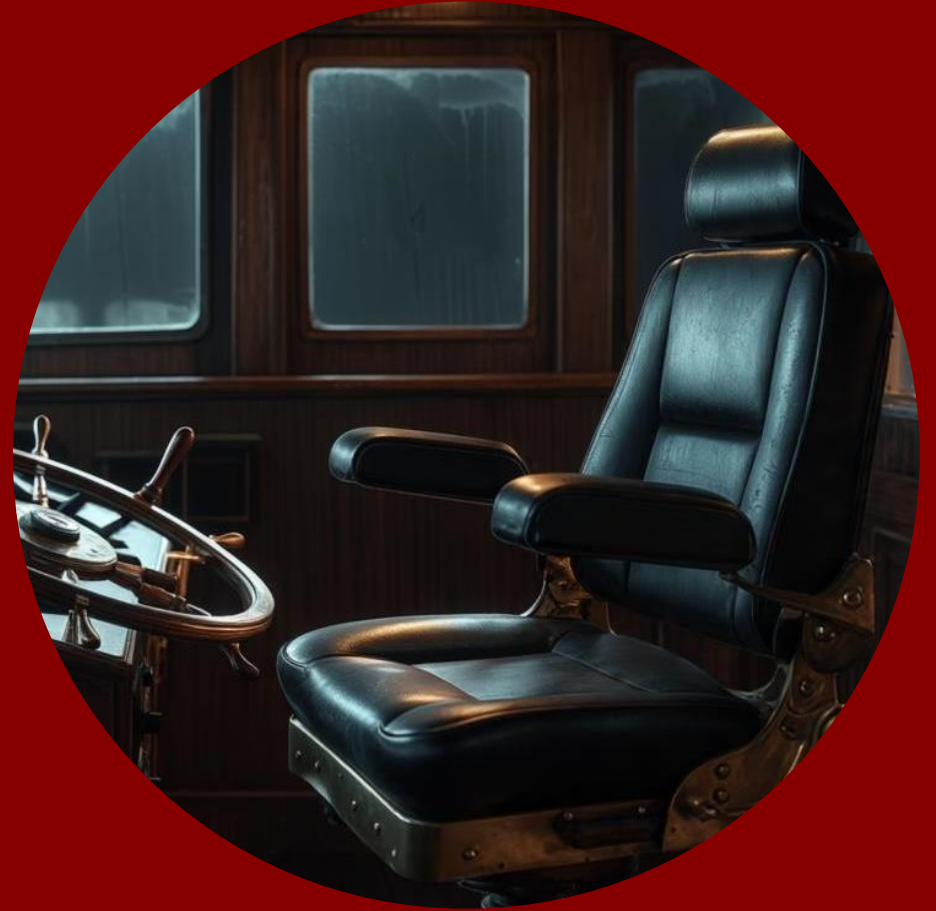
System supplier

System update

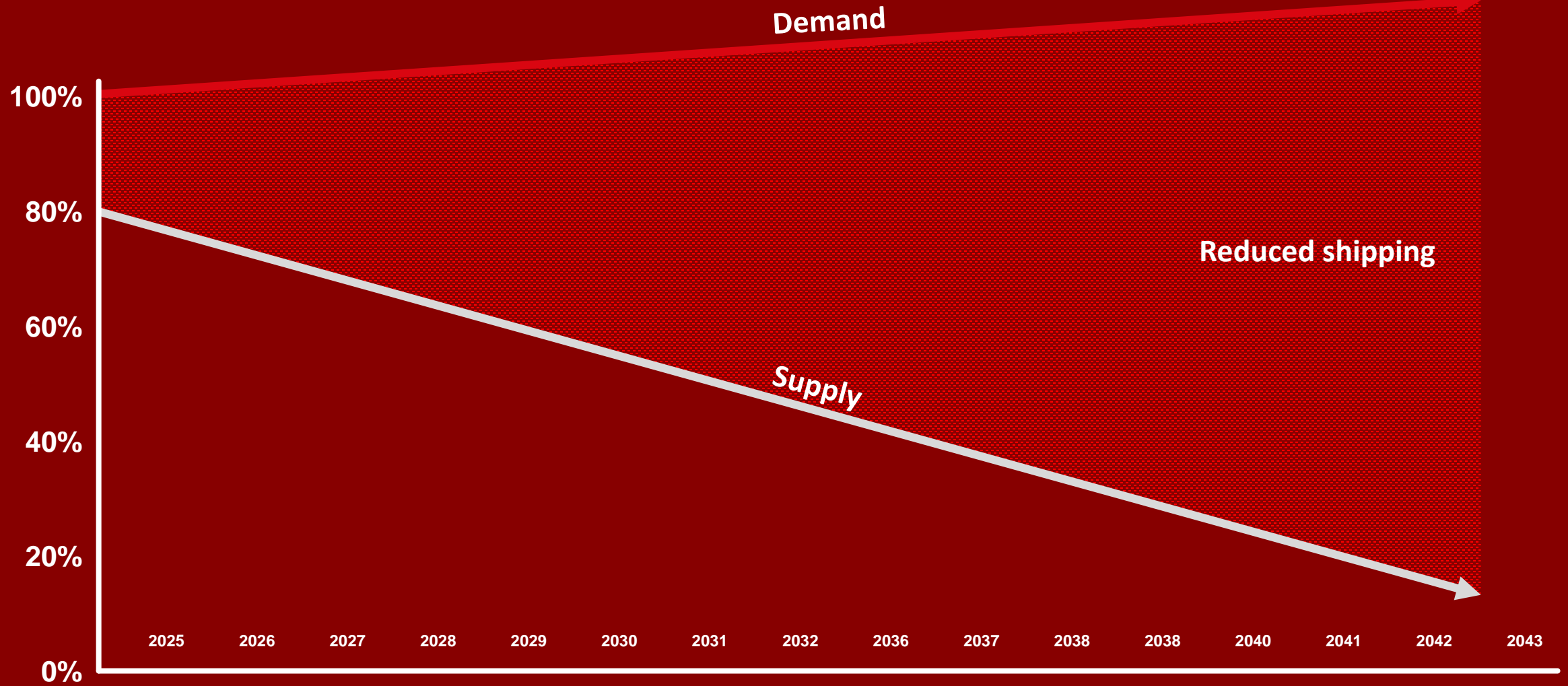


Severe shortage of qualified seafarers

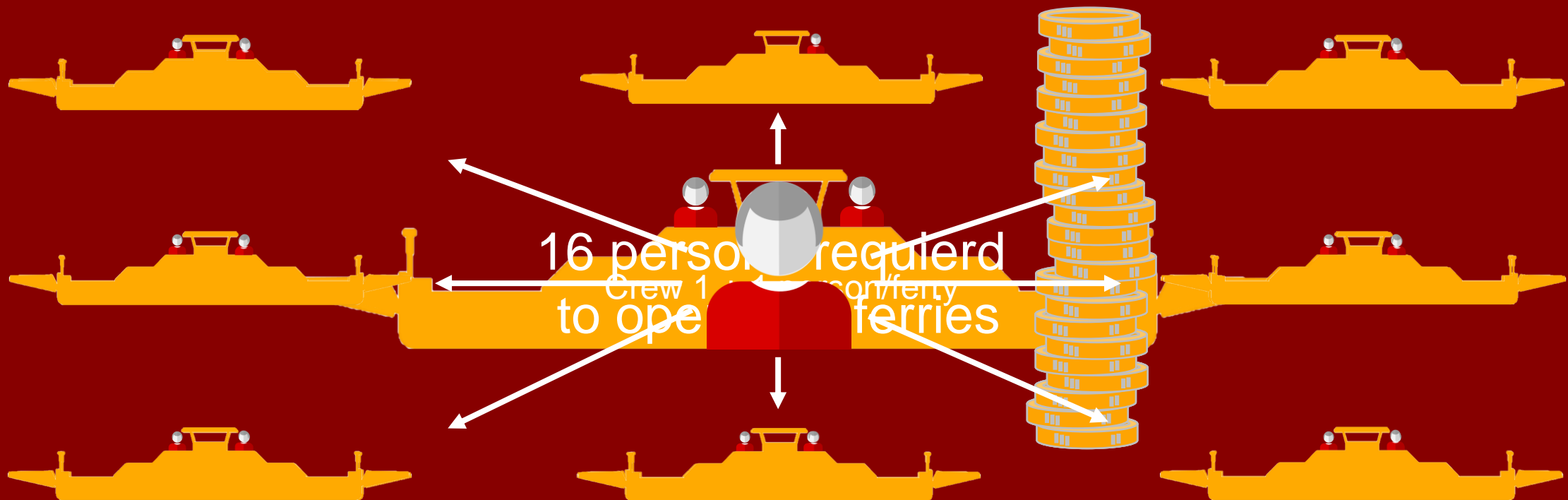
- Increasingly difficult to recruit qualified personnel
- Fewer people are training to become maritime officers



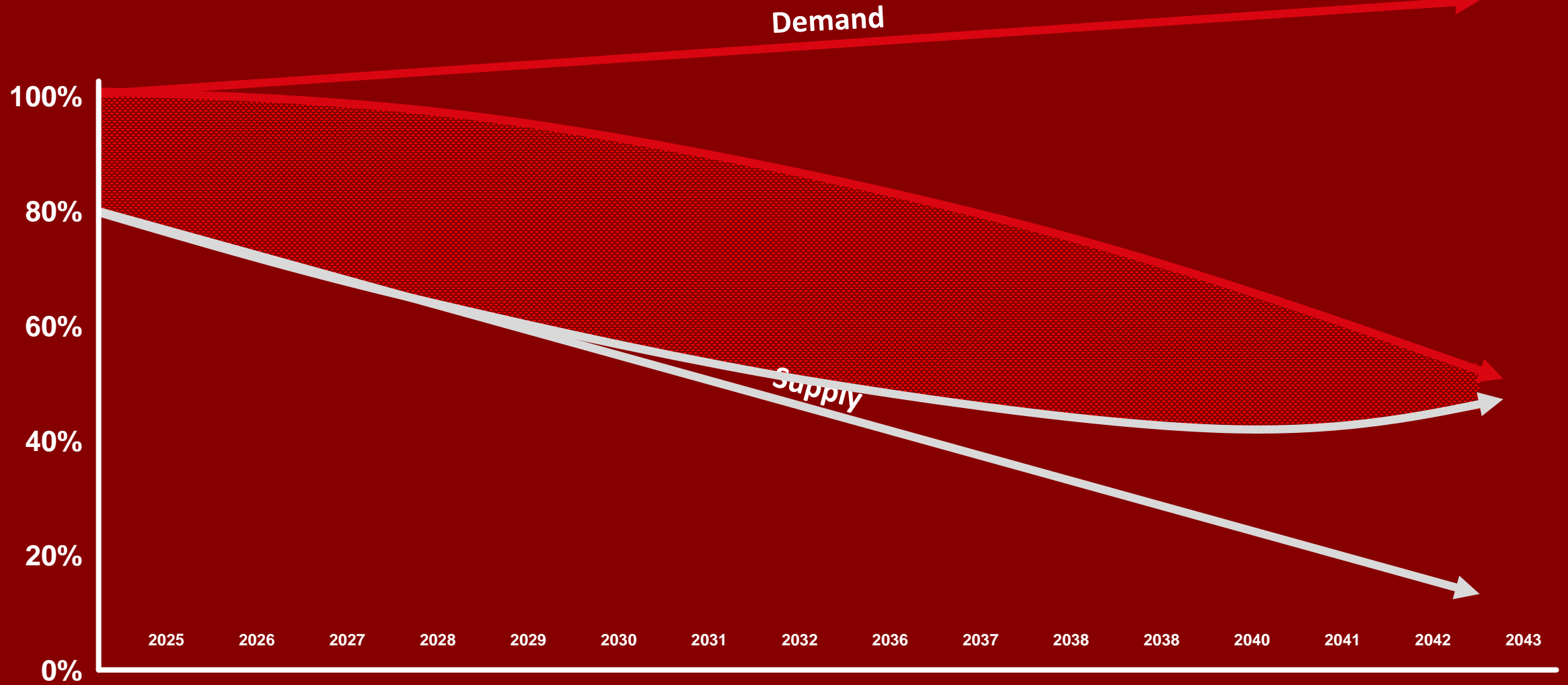
Global Trend



Introduction



Global Trend



Conclusion:

Advanced technical solutions
are not an end in themselves.
It's rather a tool to help us
achieve our goals.



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