

Realizing a Hydrogen Future

Ferry Shipping Summit 2025



Gotland Tech Development

A part of Gotlandsbolaget

Gotland Tech Development **generates knowledge** and **drive development** within the group to build the **fleet of the future**. Gotland Tech Development also ensures access to, and use of, **sustainable energy sources**, such as hydrogen, batteries, biogas and e-fuels.

- Newbuilding and retrofits to existing fleet
- Energy Transition projects
- Investments in Green Energy
- Investments in Maritime Technology
- Research and scouting the future

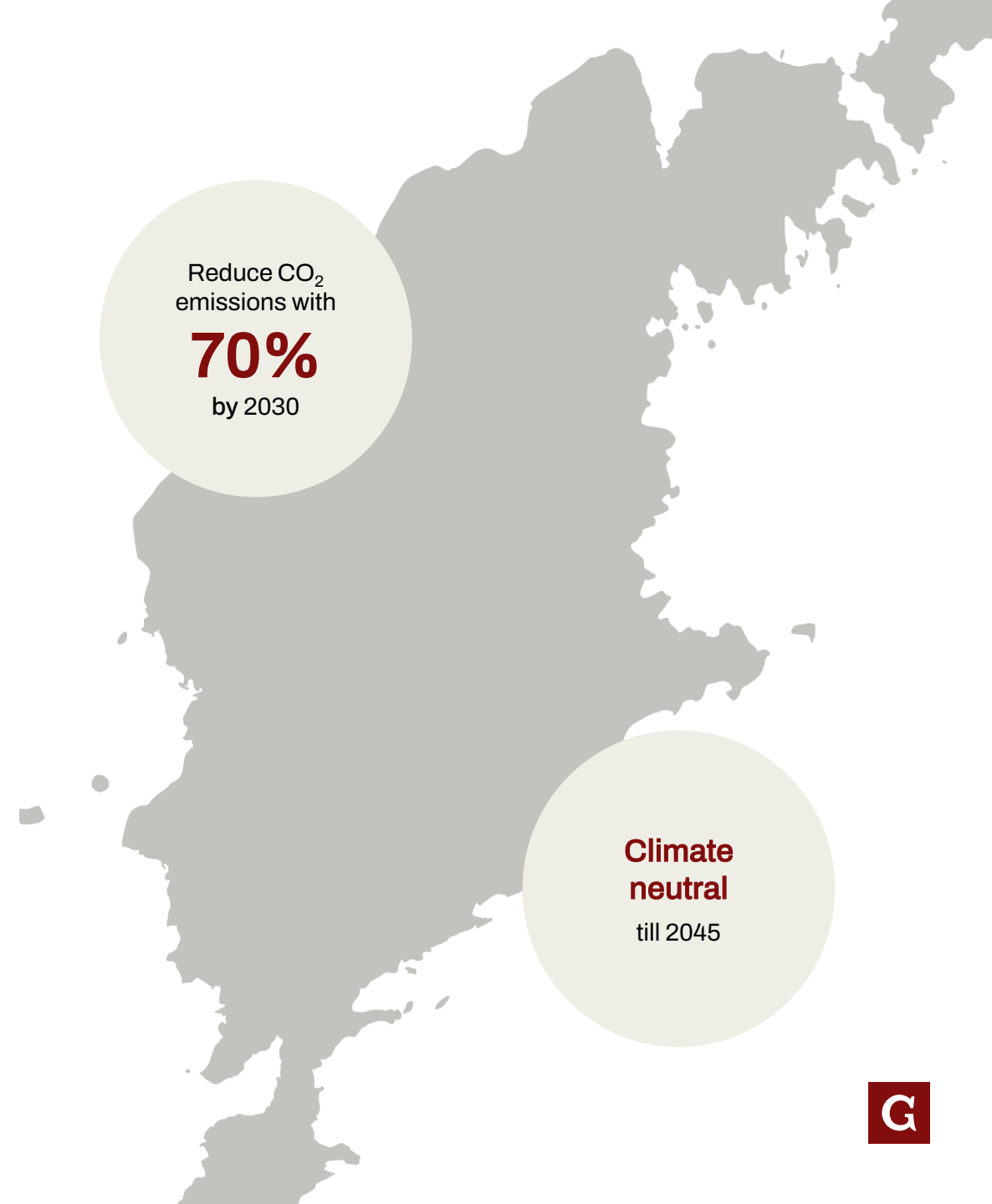


Destination Zero

Voyage to zero emissions

Gotland, like many other islands, presents unique conditions.

- The Gotland ferry is **Gotland's highway**.
- Fast crossings with **high capacity and significant emissions reductions** are requirements that must be taken into account when developing next-generation vessels.
- **Next-generation vessels** generations fartyg are the key to realizing climate neutral crossings and improving service and capacity.



Gotland's traffic today

Traffic, requirements and solutions

- ~3000 crossings per year
- Up to 20 crossings per day during peak season
- Shorter travel time - 3,5 h (previously 5-6 h, 2003)
- Twice the number of passengers compared to the 80's: From 900 000 to 1 900 000 yearly

Today's traffic runs with 3 Ro-Pax vessels:

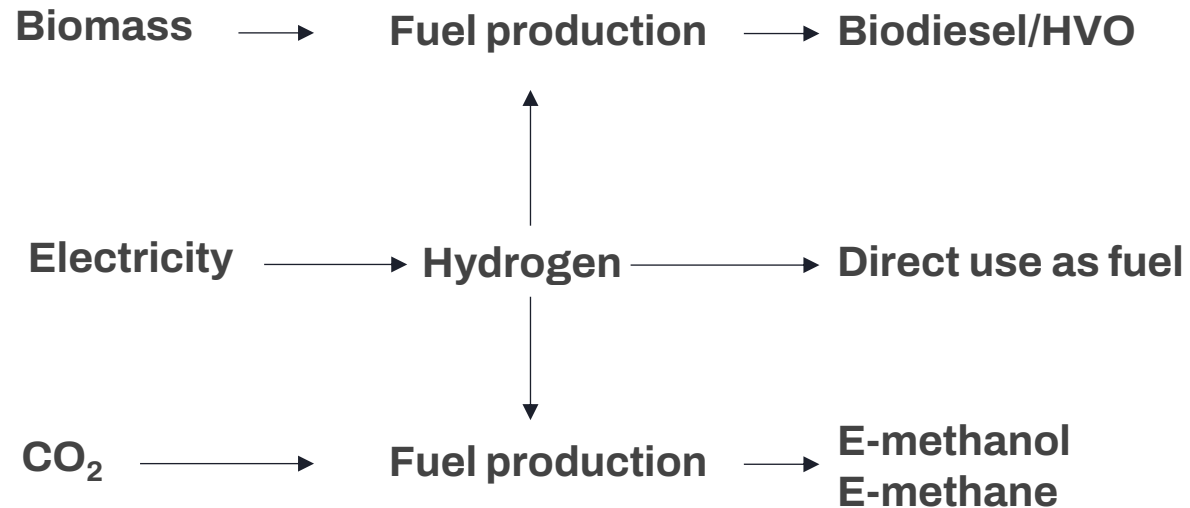
Capacity per vessel:

- 1500-1650 passengers
- 500 cars // 1745-1800 Lane meters
- Primary fuels: LNG/LBG + MDO



Shipping's energy transition

Hydrogen will play a key role in tomorrow's sustainable maritime fuels



- Hydrogen increases the efficiency of the energy system by reducing energy losses when converted into other fuels.
- Hydrogen simplifies fuel-production processes, but requires the introduction of technologies to handle hydrogen throughout the logistics chain.
- Fuel flexibility is a key design requirement!

A future proof concept for climate neutral crossings

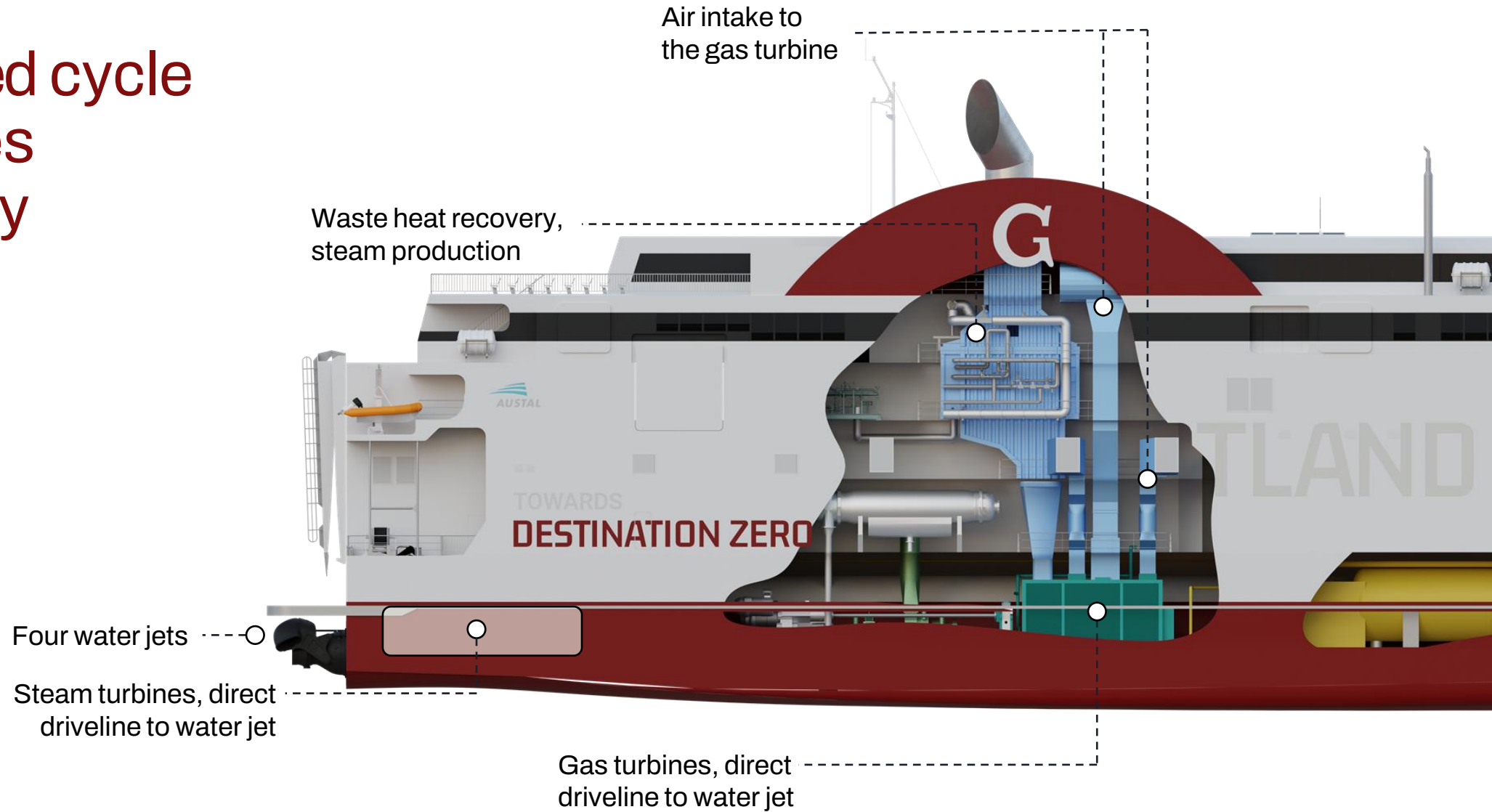
- One of the world's largest catamarans
- 130-metre-long, 29 knots
- 1 500 passengers
- 400 cars
- Multifuel – and hydrogen ready
- Combined cycle – industrially proven gas turbines go to sea
- Partnership with Austal shipyard
- Designed in Australia, built in Philippines



Multifuel and hydrogen ready



Combined cycle increases efficiency





13 MW

~35%

~49%

Power

Efficiency



Power

Efficiency

100% biogas compatible fleet 2029 – and future-fuel ready!

- Possible to adapt to fuel availability
- Today – LNG, LBG and liquid fuels
- Gas-turbine combined cycle machinery system enables a future using multiple fuels, for example Hydrogen
- Delivery 2028, in traffic 2029



Thank you!

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