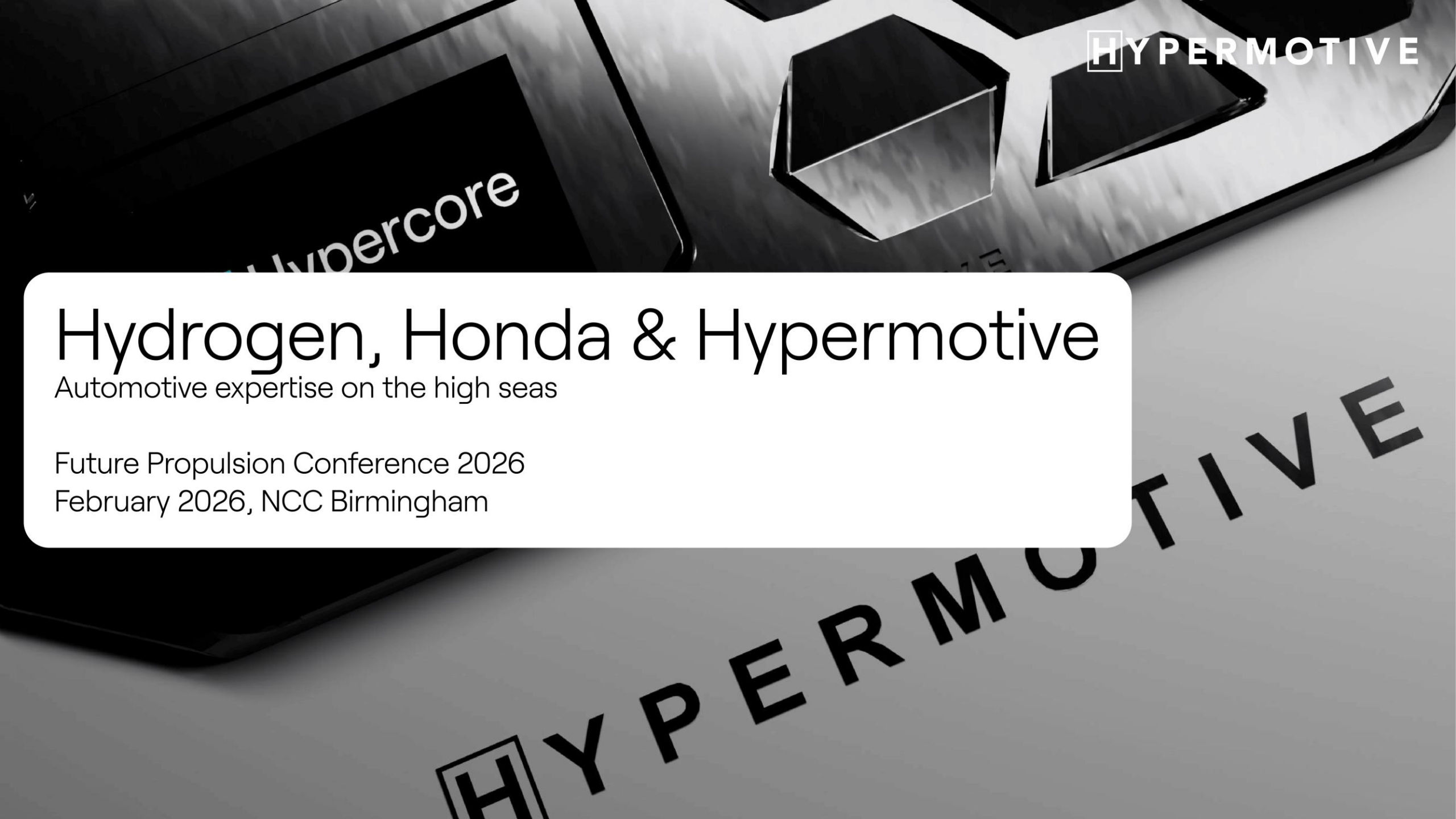


Hydrogen, Honda & Hypermotive

Automotive expertise on the high seas

Future Propulsion Conference 2026
February 2026, NCC Birmingham

Maritime, industrial mobility and power equipment providers have a problem

Customers demand zero-emissions technology

Complexity of technology integration increases cost, risk and time to market.

Fossil fuel power systems need replacing

OEMs lack the skills, capabilities and risk profile

Replacing the incumbent...

In 1915

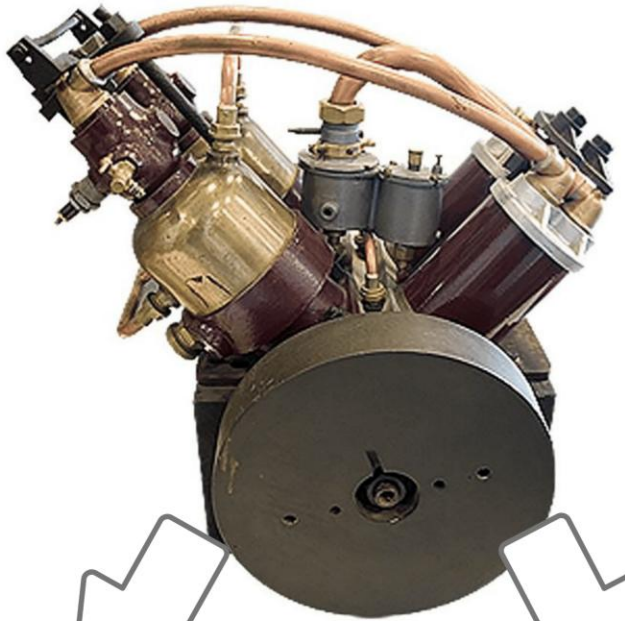


Image credit: Rick Smallman, https://www.mybrightonandhove.org.uk/

In 2026

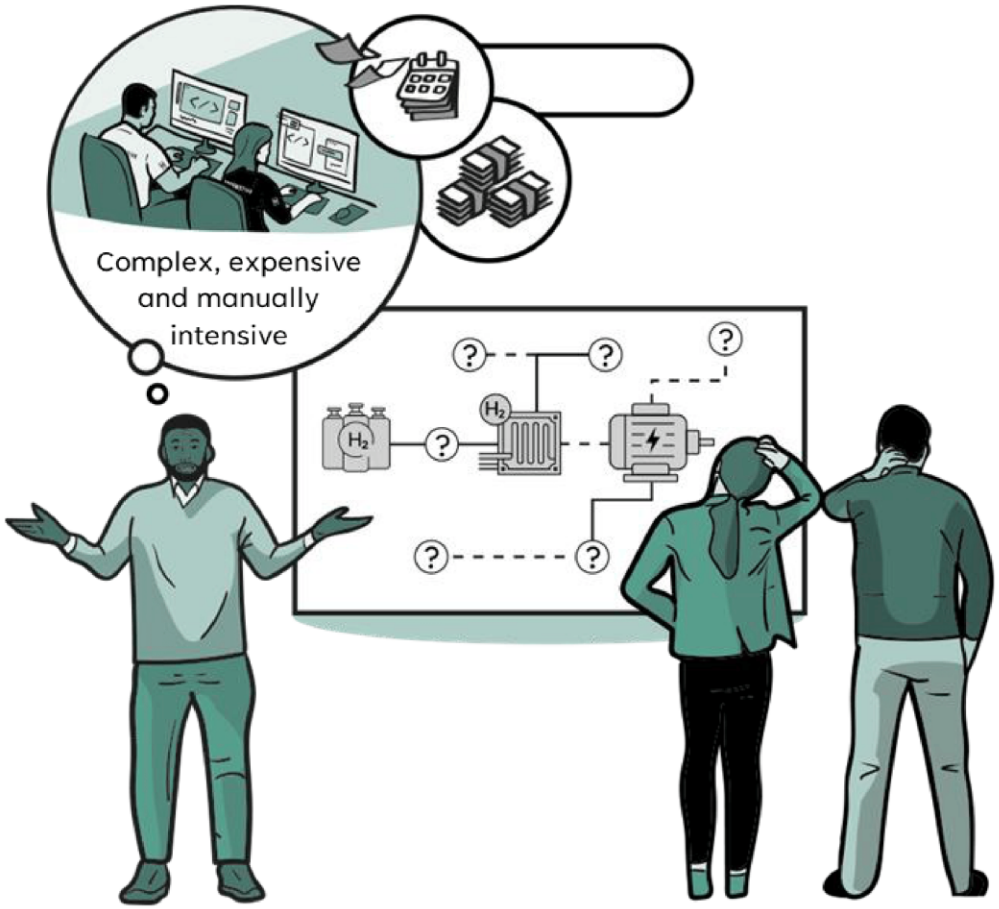
Image credit: https://fordauthority.com/

Image credit: Ford

Image credit: Volvo Penta

Image credit: Volvo Penta

Replacing legacy combustion power systems is *beyond the capability* of many who must to do so



- Significant learning curve to understand electrification and hydrogen technologies, and knowledge of competing technologies and providers
- Requires hiring of in-house technical team or expensive sub-contracting

There are *many unknowns*...

Where?
Will hydrogen be used

When?
Will hydrogen scale

How ?
Can it be commercially competitive

The realities

Commercial like-for-like models don't work without scale, if ever...

Cannot rely on regulation and subsidy

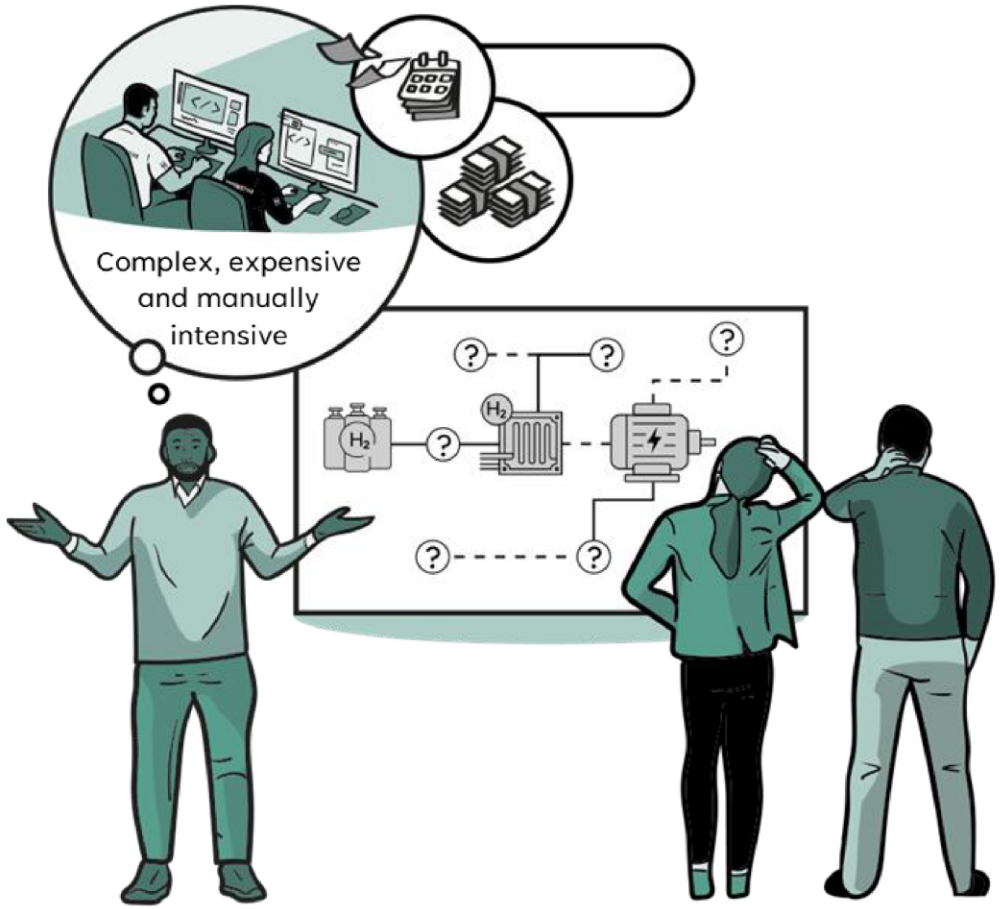
Sectorial, application and regional regulatory landscapes have diverged, as have technical pathways, functional and safety requirements

We need another way, to:

- Be creative, and find new and additional value
- Reduce barriers and costs of development
- Support with wider social adaptation, training, education, non-financial support mechanisms and application of new tools to cross boundaries

Image credit: Ballard

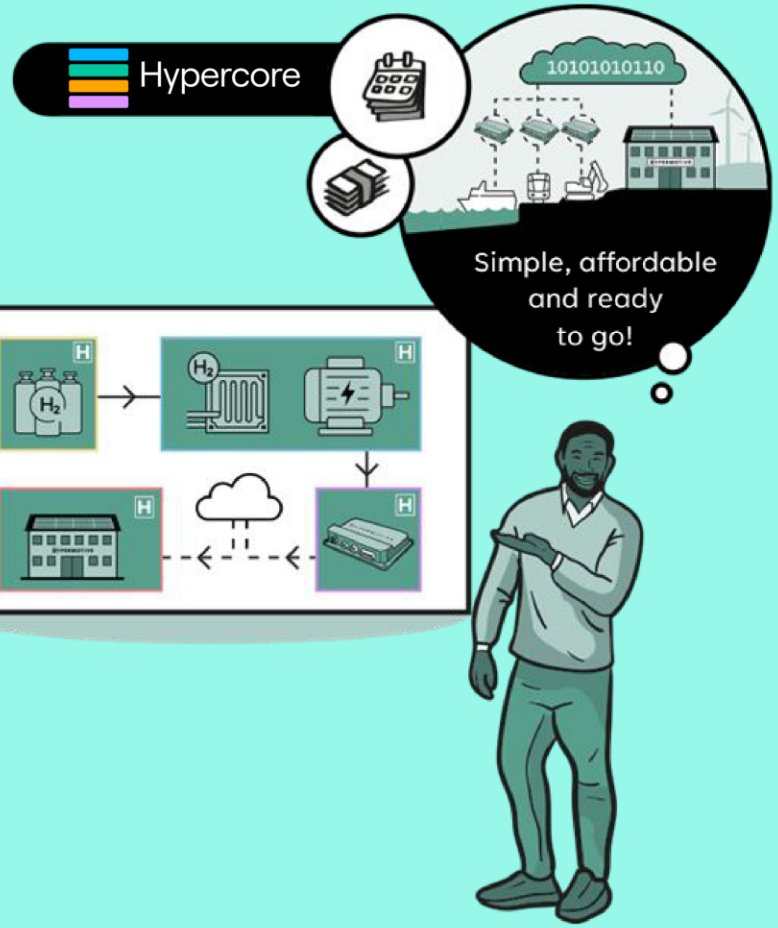
A successful solution must address more than just the technical barriers



- Significant learning curve to understand electrification and hydrogen technologies, and knowledge of competing technologies and providers
- Requires hiring of in-house technical team or expensive sub-contracting

Supercharging the path to zero-emissions

Hypercore



- Building systems on proven controller technologies and software, supported by Hypermotive's experienced electrification and hydrogen engineering team

Why marine and how to make it work?

How do the market requirements differ between marine applications and those of automotive and other sectors?

Why marine for fuel cells:

- High energy consumers
- Remote operations
- Energy & logistics hubs
- Environmental pressures and freedom to operate

What does the sector prioritise:

- Efficiency
- Maintainability
- Reliability & resilience
- Security of supply

Image credit: Muricio Muscaro

HYPERMOTIVE

The development conundrum

Different drivers, different scales, different priorities. Why not develop sectorial solutions?

Funded and purpose-founded technology development businesses

- Investment funded
- Technology focused for future investment
- Validated by external trials and customer projects

Technology development within established power systems business

- Self funded
- Product focused for future market demand revenues
- Validated by traditional mature methods

Image credit: ThisIsEngineering

If we use automotive...

How different are automotive developed technologies? What is the gap to bridge?

Environmental

Climatic
temperature, pressure, humidity

Atmospheric
pollutants, saline environments, ingress protection, incline

Mechanical
shock, vibration

Operational

Duty Cycle
peak & average load, hybridisation requirements

Economy
CAPEX, OPEX, efficiency, system lifetime

Maintenance
frequency, extent, availability, training

Regulatory

Safety
IMO, classification societies, flag states, ATEX, SOLAS

Reliability
materials, specification, construction, standards

Technical

Electrical
voltage, power, isolation

Gas
pressures, flow rates, detection systems

Control
communications, operator interface

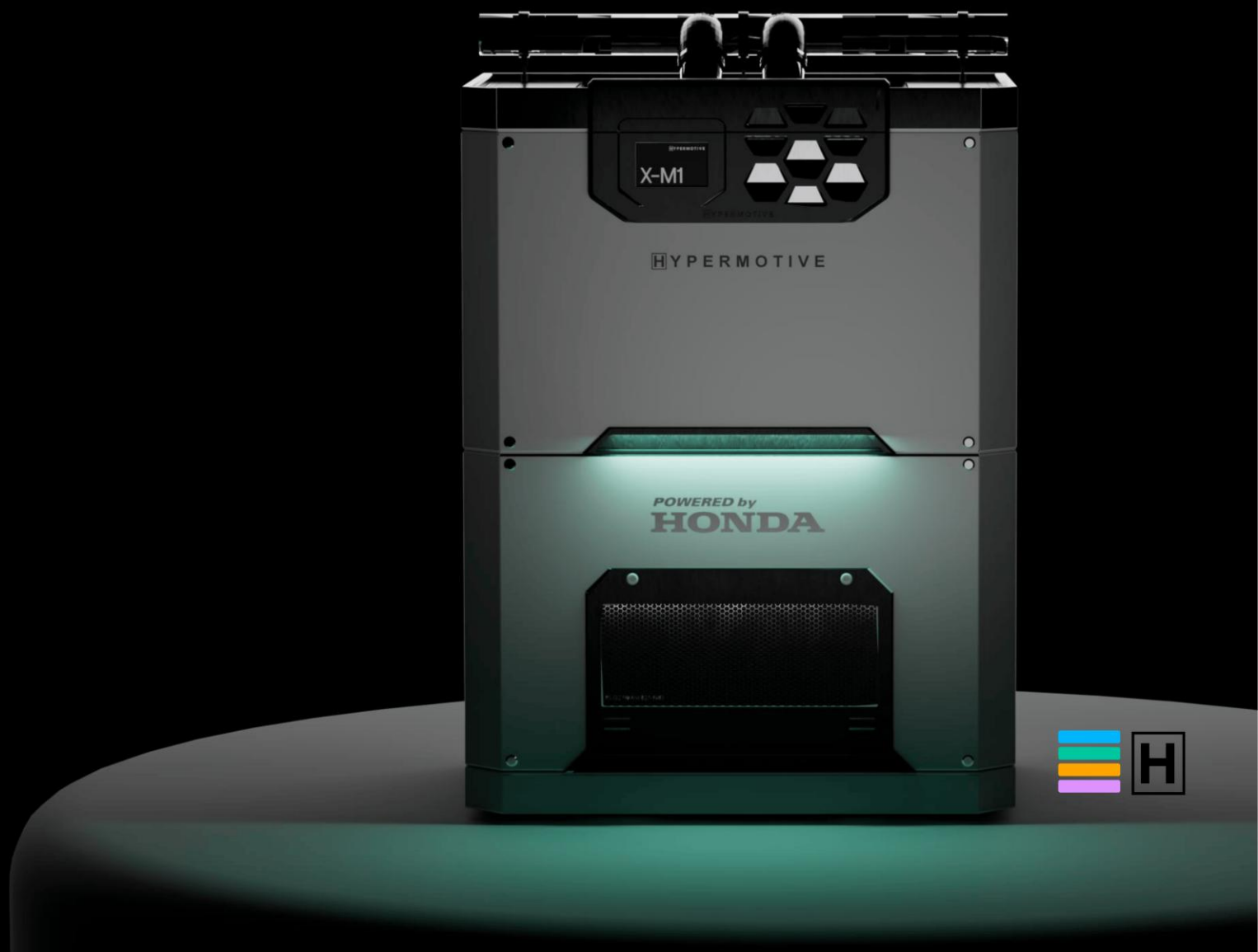
Hypercore Application

Eliminating barriers. Creating opportunities

Partnering with Honda, X-M1 is the first marine-specific application for Hypercore.

Tailored to meet the maritime sector's high power, long lifetime and extended range demands.

Honda see the opportunity Hypercore creates, opening new markets to their advanced fuel cell technologies



Identifying *values* that match *needs*

Solutions must address multiple needs to be successful and drive change

- Create new value (not just replace like for like). What attributes create new value in which markets?
- Minimise time and cost of getting to market. Agile, adaptable and rapid deployment are key to supporting emerging opportunities
- Alleviate bottlenecks, such as lack of skills and training, and support all stakeholders through difficult transition – it's scary to many!

HYPERMOTIVE

What new values does X-M1 realise in the maritime sector?

Deep-dives into customer discovery, with sector experts and regulatory bodies across range of stakeholders drives philosophy

- Use secure, highly developed (automotive) technologies
- Maintain fuel cells with ease
- Upgrade or replace fuel cells during vessel life
- Fit fuel cells late in build

Image credit: EDGE Navigation

HYPERMOTIVE

Thank you

HYPERMOTIVE

Jonathan Brown
Chief Strategy Officer

jonathan.brown@hyper-motive.com

www.hyper-motive.com