



Digital Ship Rotterdam

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This presentation contains forward-looking statements (within the meaning of the U.S. Private Securities Litigation Reform Act of 1995) concerning the financial condition, results of operations and businesses of Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as “aim”, “ambition”, “anticipate”, “believe”, “could”, “estimate”, “expect”, “goals”, “intend”, “may”, “milestones”, “objectives”, “outlook”, “plan”, “probably”, “project”, “risks”, “schedule”, “seek”, “should”, “target”, “will” and similar terms and phrases. There are a number of factors that could affect the future operations of Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this presentation, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell’s products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, judicial, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; (m) risks associated with the impact of pandemics, such as the COVID-19 (coronavirus) outbreak; and (n) changes in trading conditions. No assurance is provided that future dividend payments will match or exceed previous dividend payments. All forward-looking statements contained in this presentation are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional risk factors that may affect future results are contained in Shell plc’s Form 20-F for the year ended December 31, 2022 (available at www.shell.com/investor and www.sec.gov). These risk factors also expressly qualify all forward-looking statements contained in this presentation and should be considered by the reader. Each forward-looking statement speaks only as of the date of this presentation, 21st September 2023. Neither Shell plc nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this presentation.

Shell’s net carbon intensity

Also, in this presentation we may refer to Shell’s “Net Carbon Intensity”, which includes Shell’s carbon emissions from the production of our energy products, our suppliers’ carbon emissions in supplying energy for that production and our customers’ carbon emissions associated with their use of the energy products we sell. Shell only controls its own emissions. The use of the term Shell’s “Net Carbon Intensity” is for convenience only and not intended to suggest these emissions are those of Shell plc or its subsidiaries.

Shell’s net-zero Emissions Target

Shell’s operating plan, outlook and budgets are forecasted for a ten-year period and are updated every year. They reflect the current economic environment and what we can reasonably expect to see over the next ten years. Accordingly, they reflect our Scope 1, Scope 2 and Net Carbon Intensity (NCI) targets over the next ten years. However, Shell’s operating plans cannot reflect our 2050 net-zero emissions target and 2035 NCI target, as these targets are currently outside our planning period. In the future, as society moves towards net-zero emissions, we expect Shell’s operating plans to reflect this movement. However, if society is not net zero in 2050, as of today, there would be significant risk that Shell may not meet this target.

Forward Looking Non-GAAP measures

This presentation may contain certain forward-looking non-GAAP measures such as cash capital expenditure and divestments. We are unable to provide a reconciliation of these forward-looking Non-GAAP measures to the most comparable GAAP financial measures because certain information needed to reconcile those Non-GAAP measures to the most comparable GAAP financial measures is dependent on future events some of which are outside the control of Shell, such as oil and gas prices, interest rates and exchange rates. Moreover, estimating such GAAP measures with the required precision necessary to provide a meaningful reconciliation is extremely difficult and could not be accomplished without unreasonable effort. Non-GAAP measures in respect of future periods which cannot be reconciled to the most comparable GAAP financial measure are calculated in a manner which is consistent with the accounting policies applied in Shell plc’s consolidated financial statements.

The contents of websites referred to in this presentation do not form part of this presentation.

We may have used certain terms, such as resources, in this presentation that the United States Securities and Exchange Commission (SEC) strictly prohibits us from including in our filings with the SEC. Investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website www.sec.gov.

Biography



James Helliwell Digital Research Lead – Shell Shipping & Maritime

- Chartered Engineer & Marine Engineer
- Lead for Shell Shipping & Maritime's Digital Research & Development program
- Project Manager for a European hydrogen fuel cell pilot project.
- Specialist in analysis for energy efficient technologies including air lubrication, PBCF's and other technologies.

Agenda

01 Decarbonisation targets

02 Data analysis in Shipping & Maritime

03 Digital solutions for industry

04 Q&A

Moving to lower carbon maritime transport

2018

2050

IMO targets to be net zero by around 2050

1 billion tonnes ³



0 tonnes

Shell targets to be a net-zero energy business by 2050

600 million tonnes ⁴



0 tonnes

Global population increases by around a 33%

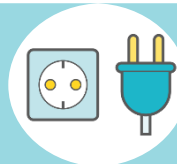
7.6 billion



9.8 billion ¹

Global energy demand increases by around 50%

91 quadrillion BTU



139 quadrillion BTU ²

¹ United Nations DESA

² EIA International Energy Outlook 2019

³ IMO Fourth GHG Study

⁴ Shell Sustainability Report 2018

Digital cloud platform

Historically

- Noon report data collected from vessels in Excel/email
- Manual, human-in-the-loop processing to find vessel performance trends
- Time consuming, multi-day analysis to find one common trend

Today

- For LNG vessels, high frequency sensor data instantaneously uploaded to the cloud
- For Products & Chemicals, automated noon reporting uploaded to the cloud
- All data harmonised into one data lake - Shell's Stratos Platform
- Advanced analytics and machine learning applied to large data sets in databricks
- Results, trends and vessel performance displayed intuitively in PowerBI



PROPEL



PROPEL

JAWS (Just Add Water System)

Technology Description

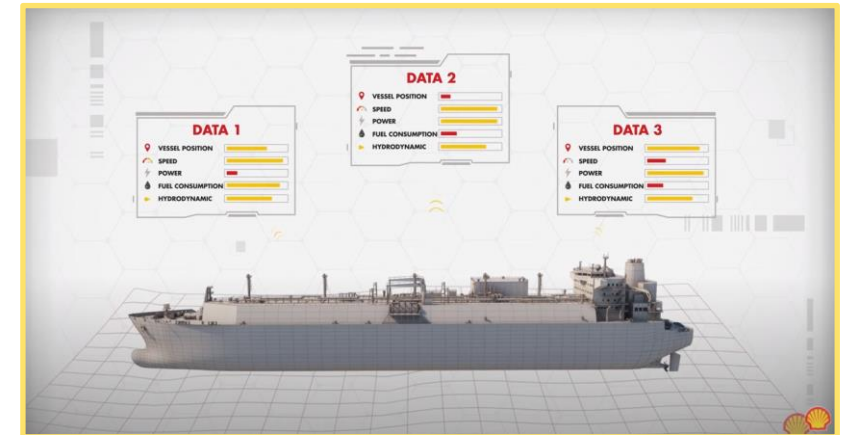
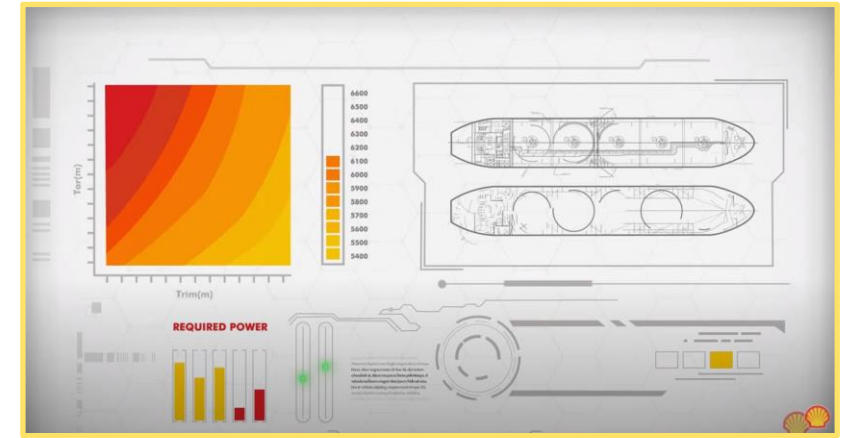
- JAWS is a proprietary advanced analytics tool, developed by the Shipping & Maritime, Technology, Innovation & Digitalisation team.
- It is designed to reduce the fuel consumption of any ocean-going commercial vessel by giving advice to the captain on the best draft and trim for a given speed to reduce resistance.
- The tool uses historic high frequency data and advanced algorithms to analyze the ships' operational profiles. This reduces the ships' resistance, requiring a lower Main Engine Power which saves fuel.

Business Challenge Addressed

- Around 50% of the total trading operational costs are attributed to fuel consumption.

Technology Benefits

- JAWS is available for ship owners to use via a subscription service provided by Kongsberg Maritime. More information is available [here](#).
- JAWS has been validated and tested on 50 MR Product Tankers and 12 LNG carriers, with fuel savings up to 8% verified ¹.
- JAWS has received approval by classification society DNV through their Technology Qualification process and is patent protected.



¹ Verified by the DNV Technology Qualification Process

Heel Optimisation

Aim

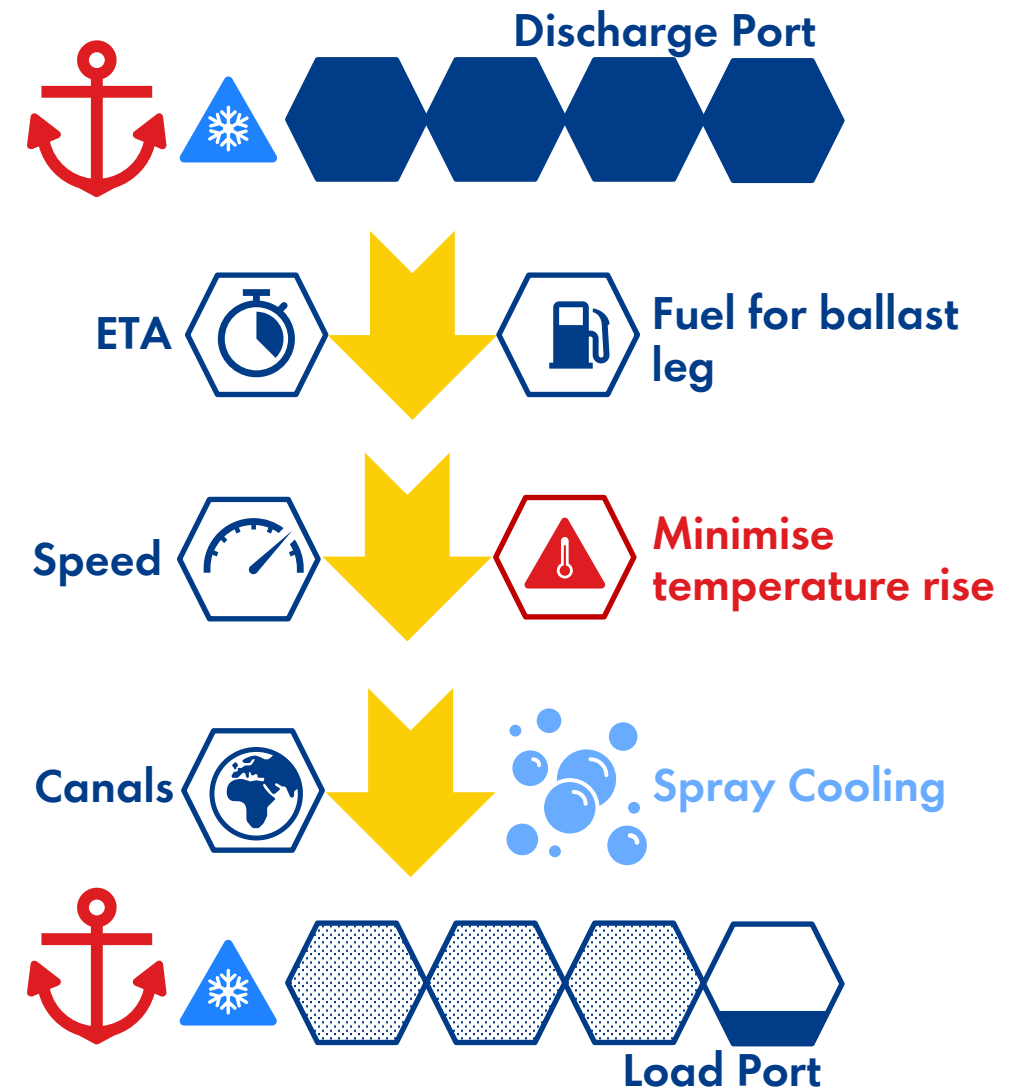
- To minimise the amount of LNG (heel) kept for return ballast voyages
- Reduce emissions from excess heel inventories
- Increase profitability by increasing delivered volumes

Method

- Multi-variable optimisation model balancing speed profiles, temperatures, pressures, tank selection, route selection, ETA and other variables
- Built on high frequency data of LNG voyages for 65+ vessels

Coming next

- Ongoing validation and deployment
- Development into commercial tool for the wider LNG industry



Q&A

