

3 参考資料

(1) NESTE 社説明資料



Meeting with Members of the Japanese House of Representatives and Neste

25.08.2025 | Hoofddorp

Placeholder for disclaimer, such as internal/confidential/public note

NESTE

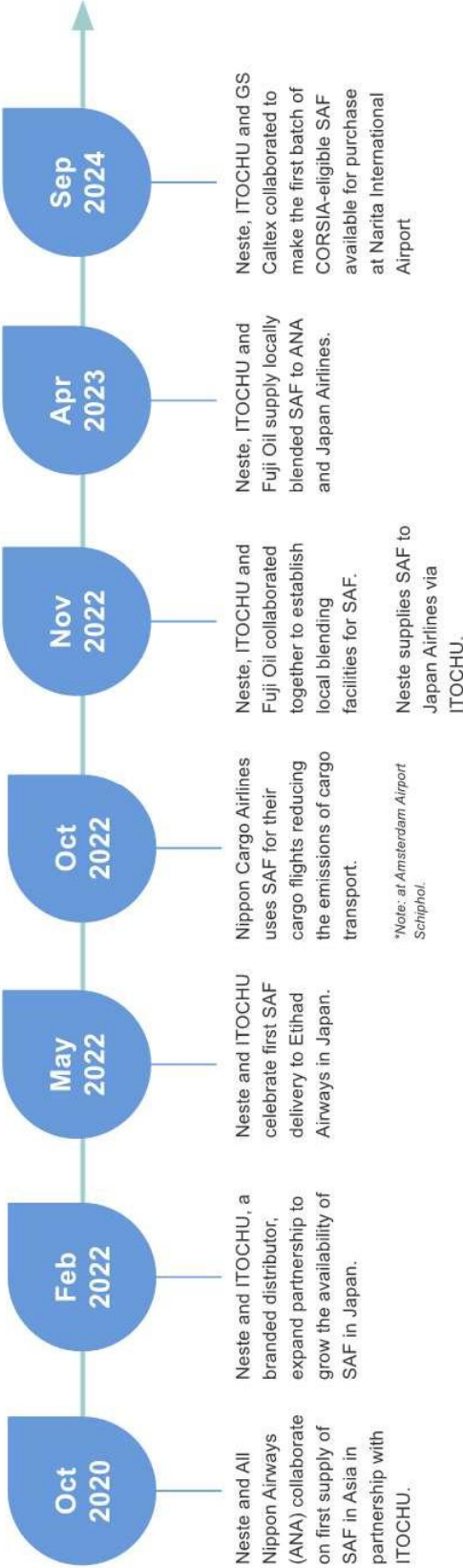


Availability: Neste is increasing its global SAF production to 2.2 Million tons in 2027

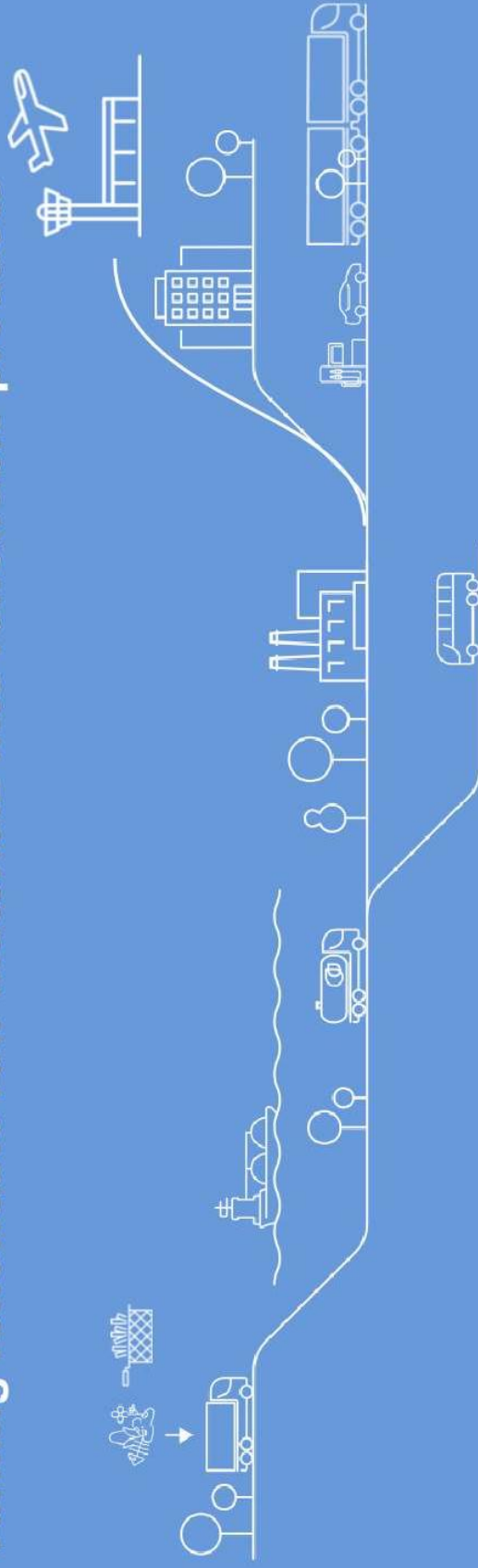


Renewable Aviation in Japan

Neste is committed to working together to support the Japanese aviation market achieve its emission reduction targets



Turning renewable raw materials into renewable products



Raw materials

A wide variety of different renewable raw materials are sourced around the world

Waste and residues account for approx. 90% of our renewable raw material inputs globally.

Pretreatment

Pretreatment of the renewable raw materials ensures impurities are removed before refining.

Refining

Pretreated raw materials are hydrotreated with Neste's own NEXBTL™ technology or other hydrotreatment technologies.

Oxygen is removed from raw materials with hydrogen. The created pure hydrocarbons are isomerized to tune the end product properties.

Output

5.5 million tons of Neste renewables per year
→ Increasing to 6.8 million tons in 2027

NESTE

Long-term SAF production scale up is based on continuing expansion of global feedstock pool via new technologies

15

Estimated global feedstock pool growth potential

New abundant feedstock pools required to reach emission reduction ambitions

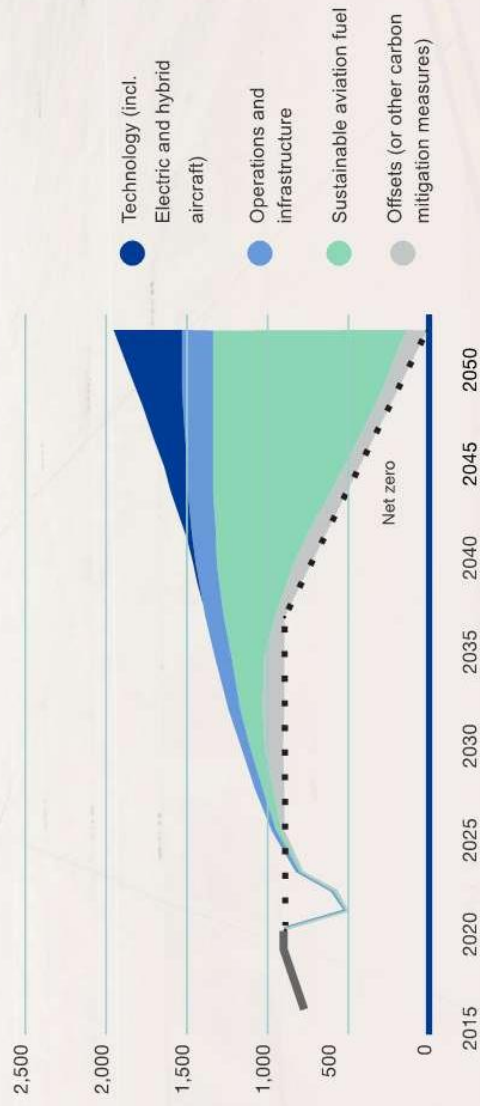
Feedstock pool potential hundreds of millions tons



Source: Neste analysis based on WEF Clean Skies for Tomorrow and other sources.

For aviation, the choices are limited: SAF needs to deliver 65% of emission reductions by 2050

Aviation CO₂ emissions trajectory and reductions by measure (Mt CO₂e)



Source: ATAG Waypoint 2050

Aviation continues to rely heavily on liquid jet fuel, even with efficiency improvements and emergence of (short-haul) electric planes in the future.

Sustainable Aviation Fuels will be the most important tool in the aviation sector's transition towards net zero.

Continuing growth of the SAF market will require policy support to create demand certainty for investments

2025-28
2030

Americas

EMEA

Asia Pacific

Brazil

1%¹
(2027)

British Columbia
(Canada)

1%²
(2028)

Canada federal

Opt-in³

US state level

LCFS opt-in
in CA, OR;
incentives
IL, MN, MI,
NM, NY,
WA

US federal

RFS
opt-in;
SAF 45Z
CFPC

Chile

Policies
considered

European
Union

2%⁴

Switzerland

2%⁵
(2026)

United
Kingdom

2%⁶

Turkey

TBA⁷

UAE

TBA⁸

KSA,
Oman

Policies
considered

Singapore

1%⁹
(2026)

Korea

1%¹⁰
(2027)

Japan

TBA⁹

Indonesia

1%¹⁰
(2027)

India

1%¹⁰
(2027)

Malaysia

1%¹⁰
(initial)¹⁰

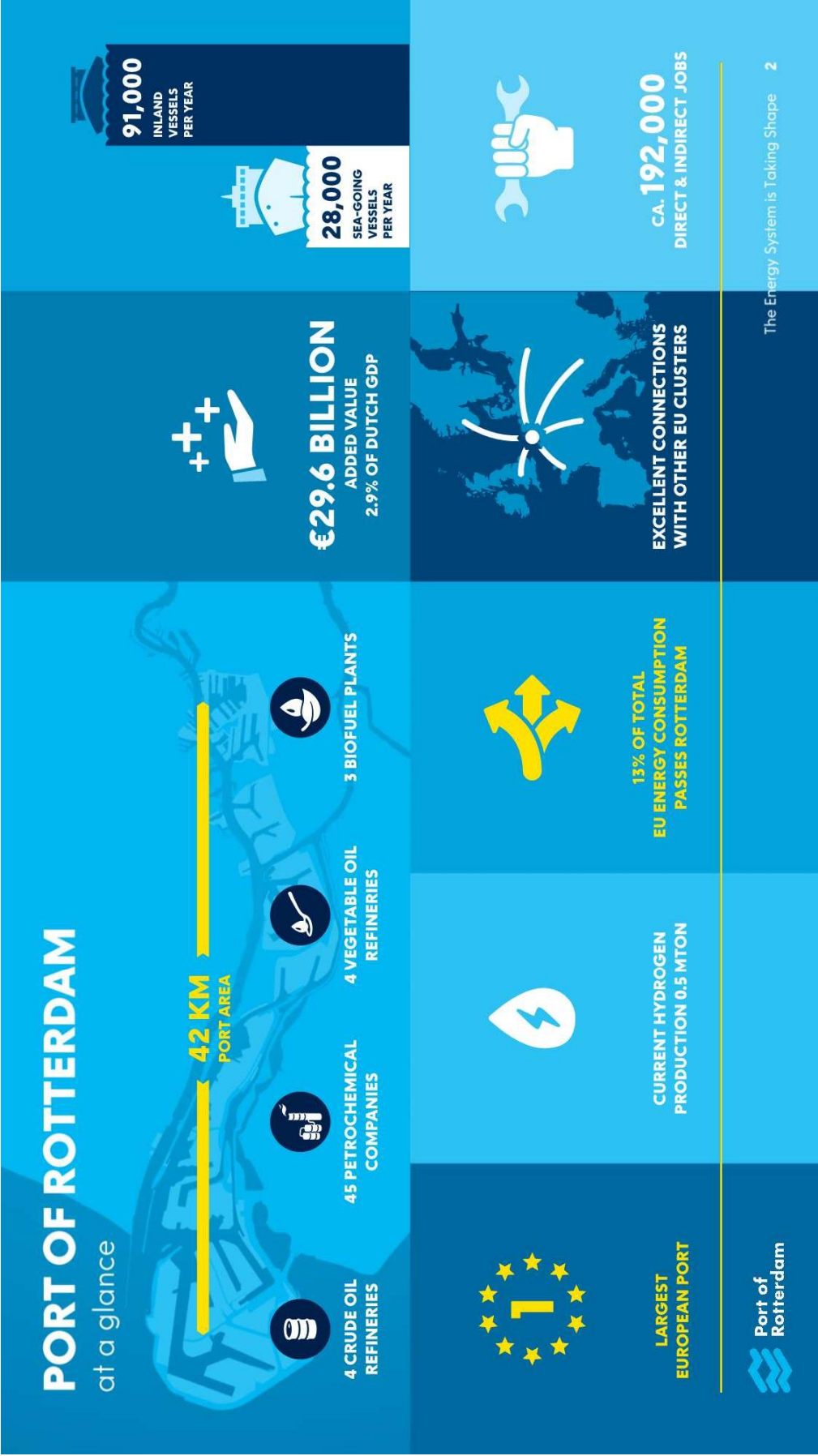
Thailand,
Australia,
New Zealand

Policies
considered

1) Fuels of the Future law (Lei nº 14.393/2024); 2) LCFS regulations mandate -2% carbon intensity (CI) reduction for jet fuel in 2026 and -10% in 2030; 3) Clean Fuel Regulations allow SAF to contribute to CI reduction targets on opt-in basis; 4) ReFuelEU Aviation with 1.2% RFNBO sub-mandate; 5) Switzerland plans to introduce a SAF mandate mirroring ReFuelEU; 6) UK SAF Mandate with HEFA cap of 71% in 2030 and 35% in 2040; 7) Civil Aviation Agency of Türkiye announced -5% GHG emissions reduction target in 2030; 8) Sustainable Air Hub Blueprint; 9) METI proposal on May 26, 2023; 10) National Energy Transition Roadmap.

(2) ロッテルダム港説明資料





ENERGY TRANSITION BASED ON 4 PILLARS

PILLAR 1

**EFFICIENCY AND
INFRASTRUCTURE**

PILLAR 2

**A NEW
ENERGY SYSTEM**

PILLAR 3

**A NEW
FEEDSTOCK AND
FUEL SYSTEM**

PILLAR 4

**SUSTAINABLE
TRANSPORT**

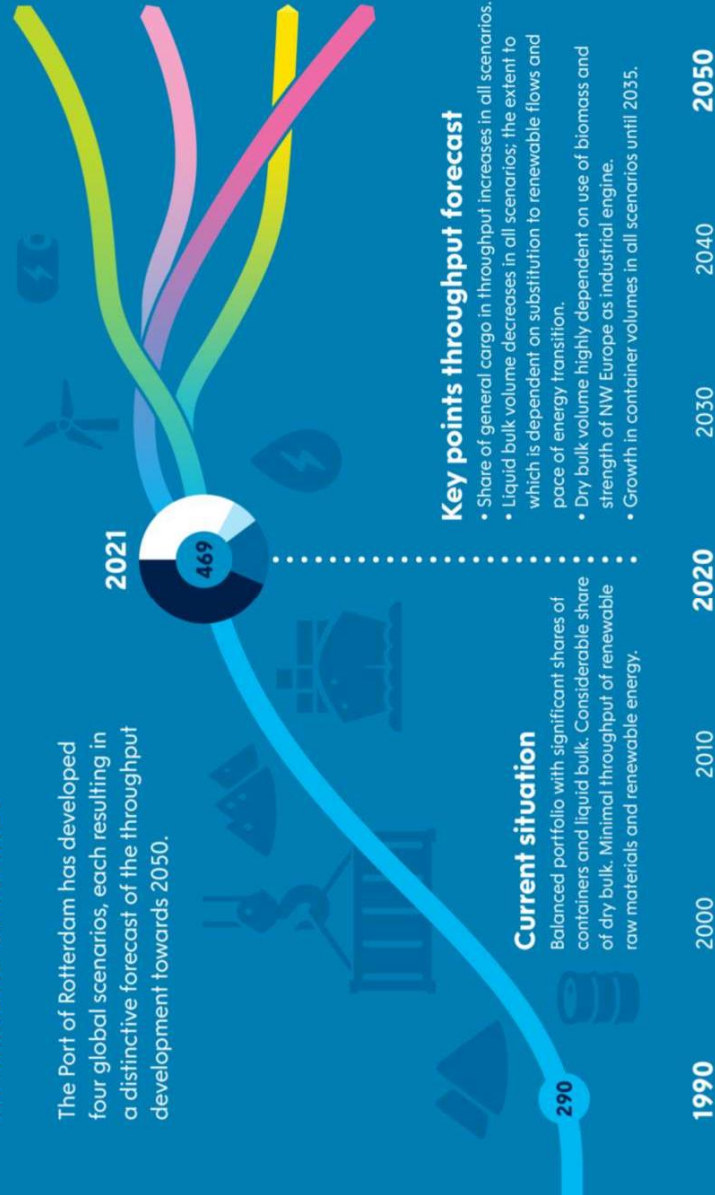
-55% CO₂ in 2030
(compared to 1990)

CO₂ Neutral in 2050

THROUGHPUT PER SCENARIO TOWARDS 2050

In millions of tonnes

The Port of Rotterdam has developed four global scenarios, each resulting in a distinctive forecast of the throughput development towards 2050.



Key points throughput forecast

- Share of general cargo in throughput increases in all scenarios.
- Liquid bulk volume decreases in all scenarios; the extent to which is dependent on substitution to renewable flows and pace of energy transition.
- Dry bulk volume highly dependent on use of biomass and strength of NW Europe as industrial engine.
- Growth in container volumes in all scenarios until 2035.

Current situation

Balanced portfolio with significant shares of containers and liquid bulk. Considerable share of dry bulk. Minimal throughput of renewable raw materials and renewable energy.

CONNECTED DEEP GREEN

Fossil energy falls to zero in 2050; instead large amounts of renewable energy (e.g. H₂, NH₃). Strong increase in containers due to growing global trade.



WAKE-UP CALL

More biomass imports as feedstock for energy and chemicals. Late but rapid energy transition requires CO₂ storage. Increase in containers due to favourable economic climate.



REGIONAL WELL-BEING

Strong decline in crude oil, coal, iron ore due to contact of energy-intensive industries. As a result, more general cargo volume due to imported semi-finished products.



PROTECTIVE MARKETS

Trade barriers lead to delayed substitution to renewable energy. Considerably less crude oil refining. Less general cargo due to reshoring and nearshoring.



- LEGEND**
- Containers
 - Dry bulk
 - Liquid bulk (fossil)
 - Breakbulk
 - Liquid bulk (non-fossil)

THE PORT OF ROTTERDAM IS READY TO RECEIVE ALL TYPES OF CARRIERS



Clean ammonia
One existing terminal. 5 new terminals announced.
Ammonia bunker pilot successfully completed.



Clean methanol
Multiple existing terminals. Already a European methanol hub.
Commercial bunkering of methanol already available in the port.



Liquid hydrogen
2 Feasibility studies for new terminal completed.
LH₂ bunkering is currently being studied for several clients in the port.



Liquid organic hydrogen carrier
Conversion of 2 existing terminals.



Other
Other technologies are also being explored (e.g. NaBH₂).

Sustainable Aviation Fuel (SAF) is also handled at Port of Rotterdam, it is considered a hydrogen based fuel and not per se a carrier



PROJECTED PORT READINESS FOR SHIP-TO-SHIP BUNKERING

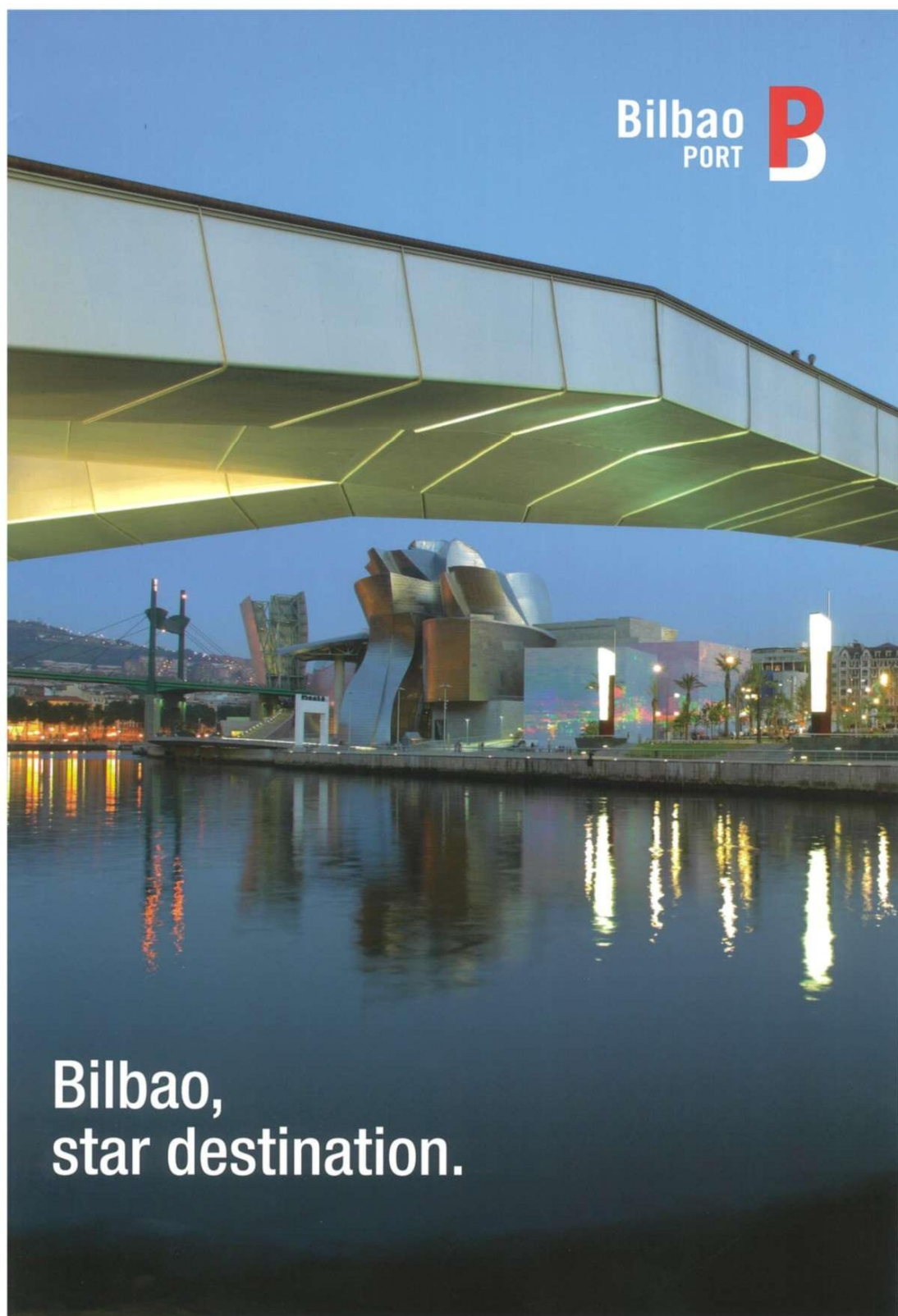
Port Readiness Level (PRL) for marine fuel

Research	PRL 1	Fuel relevance assessed
	PRL 2	Interest of port stakeholders determined
	PRL 3	Sufficient information gathered
	PRL 4	Policy for bunkering specific fuel decided, roadmap developed
Development	PRL 5	Framework for bunkering and associated activities of a specific fuel designed
	PRL 6	Framework for bunkering specific fuel demonstrated in a protected environment
Deployment	PRL 7	Bunkering of specific fuel established on a project base in an operating environment
	PRL 8	System for bunkering of specific fuel complete and qualified
	PRL 9	Bunkering of specific fuel integrated in regular port operations

LNG & fuel oil are mature



(3) ビルバオ市説明資料





The cruise and ferry terminals will be electrified in the near future

Located on the Bay of Biscay, the ferry terminal and the two cruise terminals provide an ideal gateway to develop tourism in the region.

Besides, The Port Authority has decided to equip its container, Ro-Ro and cruise terminals with facilities to supply electricity to ships while they are berthed, with a view to reducing vibration and noise levels and cutting greenhouse gas emissions by 40%.

This will enable the Atlantic Arc to take a considerable step forward in its efforts to deliver the EU "Fit for 55" targets.

The project also provides for facilities for renewable power generation, including solar photovoltaic, wave and wind power.



Bilbao, a
re-invented town
for the future.

Bilbao, the capital of Biscay, is a city that has been "re-invented" where the past and the future, tradition and innovation co-exist to create a harmonious landscape that is reflected in its parks and gardens, promenades, streets and buildings.

Internationally renowned for its urban transformation, Bilbao received the city Nobel Lee Kuan Yew World City Prize in 2010.

Several Pritzker Prize-winning architects have contributed to turning this historically industrial city into an attractive and cultural destination. The Guggenheim Museum Bilbao, designed by Frank Gehry; the Isozaki Atea towers, by Arata Isozaki; the Deusto Library, by Rafael Moneo; the Bizkaia Aretoa auditorium, by Álvaro Siza; the Bilbao metro, by Norman Foster; the Zorrotzaurre General Plan, by Zaha Hadid; Anbotu Dorrea, by Richard Rogers, and many other such architectural works can all be taken in and admired on a stroll around the city.

Bilbao is the capital city of Biscay as well as a metropolis, and the economic and financial centre of Euskadi. It is the largest urban area in Euskadi (1,000,000 inhabitants) and a university town.

GUGGENHEIM MUSEUM BILBAO

This contemporary art museum marked the before and after of the town's regeneration. Its spectacular, symbolic vanguard building, designed by Frank Gehry, is a great work of art in itself and has been denominated the first great building of the XXI century.



Biscay Bridge.
Declared a World Heritage
Site by UNESCO



(4) ビルバオ港視察に関する現地記事（スペインの運輸・物流分野専門紙 *Diario del Puerto* より）

MARÍTIMO

Una delegación de Japón visita el Puerto de Bilbao para estrechar lazos comerciales



La delegación japonesa junto al director de Operaciones, Comercial y Logística de la Autoridad Portuaria de Bilbao, Andima Ormaetxe

DP

27 agosto 2025 14:05

Última actualización 27 agosto 2025 14:15

Una delegación de la Cámara Baja de Japón -el órgano legislativo del país asiático- ha visitado las instalaciones del **Puerto de Bilbao** con el objetivo de estrechar lazos comerciales entre ambas partes.

BILBAO. El encuentro, que se ha celebrado en la terminal de cruceros Olatua que la **Autoridad Portuaria de Bilbao** tiene en Getxo, ha contado con la asistencia de diputados de la Cámara de Representantes de Japón, como los directores de la Comisión de Territorio, Infraestructuras, Transporte y Turismo, Takashi Kii y Hiroyuki Moriyama, y el miembro de la Comisión de Territorio, Infraestructuras, Transporte y Turismo, Kiichiro Hatoyama, acompañados por personal funcionario de la Secretaría de la Cámara de Representantes.

La nutrida representación japonesa, que ha sido recibida por el director de Operaciones, Comercial y Logística de la Autoridad Portuaria de Bilbao, Andima Ormaetxe, ha contado, asimismo, con la presencia del ministro (Segunda Jefatura) y de la consejera de la Embajada del Japón en España, Shinji Minami y Mai Sasaki, respectivamente.

La delegación nipona se ha mostrado especialmente interesada en las actuaciones que está llevando el Puerto de Bilbao en relación con la reducción de la huella de carbono de la actividad logística, como el desarrollo de corredores marítimos verdes y digitales; los acuerdos con los puertos de Ámsterdam y Duisburgo para implementar un corredor de hidrógeno renovable entre el País Vasco y el centro de Europa; o el proyecto BilbOPS para electrificar las terminales de contenedores, ferris, tráfico ro-pax, tráfico ro-ro y cruceros con tecnología OPS.

Este último está parcialmente financiado por el Mecanismo 'Conectar Europa' (Fondos CEF) y el resto por fondos propios de la Autoridad Portuaria de Bilbao. Cabe señalar que se ha firmado con el Banco Europeo de Inversiones (BEI) un préstamo de 80 millones, y parte del mismo será destinado a la financiación de este proyecto. A partir de su entrada en funcionamiento en 2027, los buques podrán apagar los motores auxiliares durante su estancia en puerto y utilizar energía procedente parcialmente de fuentes renovables, tales como placas fotovoltaicas, lo que permitirá reducir las emisiones de gases de efecto invernadero y minimizar ruidos y vibraciones, contribuyendo a la transición energética y la descarbonización del transporte marítimo. El proyecto contempla una rebaja de emisiones de CO2 del Puerto en un 38,8 %, y una reducción total de 9.062 toneladas de emisiones de CO2.

Turismo de cruceros

Otro de los aspectos tratados en el encuentro ha sido la operativa y gestión del turismo marítimo. Las instalaciones específicas para este tipo de tráfico, a la vanguardia entre los puertos europeos, son uno de los principales reclamos para las compañías navieras, que cada día apuestan más por Bilbao como puerta de entrada para conocer los atractivos turísticos de Bilbao, Bizkaia, Euskadi y las comunidades limítrofes. Así, en 2024 las terminales para cruceros ubicadas en Getxo recibieron más de 150.000 turistas -283 de ellos japoneses- a bordo de 90 cruceros, cifras que se esperan superar en la temporada 2025, en la que hasta julio ya han recalado 428 turistas nipones.

La Autoridad Portuaria trabaja permanentemente para ofrecer un servicio de calidad tanto a las personas pasajeras como a las compañías navieras, mejorando la accesibilidad de personas y vehículos, adaptando las infraestructuras portuarias a las necesidades de los modernos buques que atracan en sus muelles, e impulsando una operativa eficaz en la que priman en todo momento la comodidad y la seguridad del pasaje.

Tráficos con Japón

La visita de la delegación de la Cámara Baja de Japón coincide con las tensiones comerciales provocadas por la política arancelaria iniciada por la administración estadounidense, y tiene entre otros objetivos estrechar los lazos entre el tejido empresarial y logístico de Japón y Euskadi y abrir nuevos mercados para las empresas de ambos territorios.

En 2024 desde el Puerto de Bilbao se exportaron 10.219 toneladas con destino a Japón, principalmente de las partidas 'Otros Bienes' (3.073 tn) y 'Otros Productos Metalúrgicos' (2.270 tn). En lo que a las importaciones se refieren, en el pasado ejercicio sumaron 157.774 toneladas, esencialmente por la partida 'Productos de Hierro y Acero' (148.540 tn) y 'Otros Bienes' (3.474 tn).

MARÍTIMO

BERGÉ incorpora dos nuevas grúas de gran tonelaje en el Puerto de Pasaia



Welcome to Old Oak Common Depot

Home of the Elizabeth line Class 345 fleet

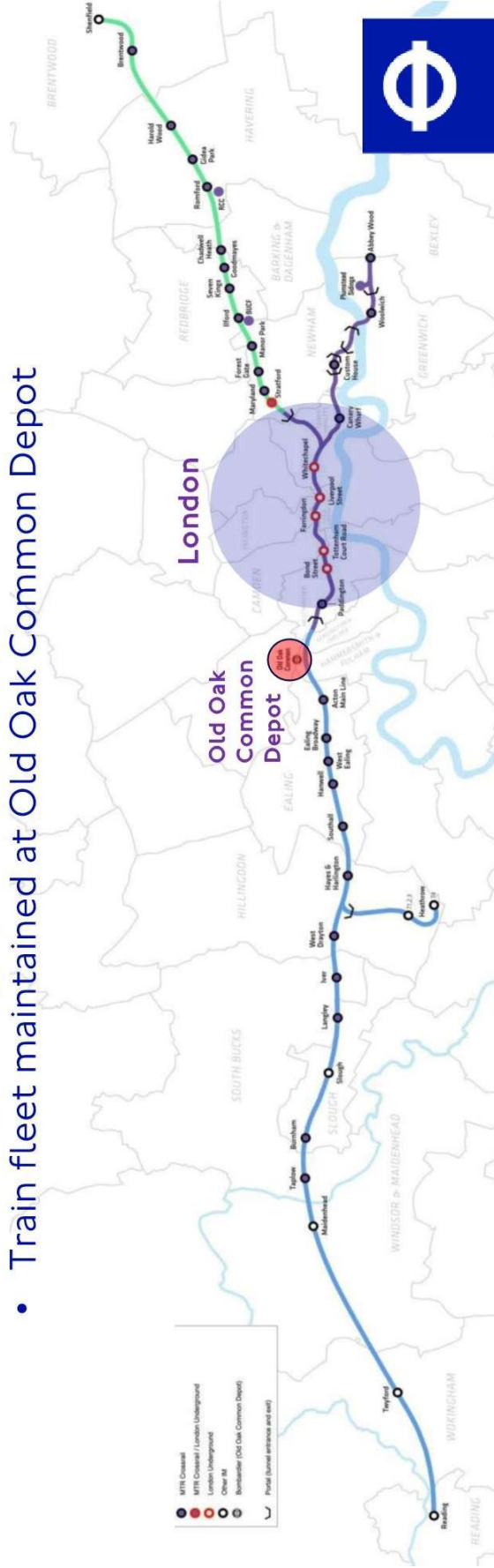
28th August 2025



The Elizabeth line



- 100 km end-to-end.
- 21 km. in new tunnels under London
- 41 stations – 10 new
- 700,000 passenger journeys per day
- Train fleet maintained at Old Oak Common Depot



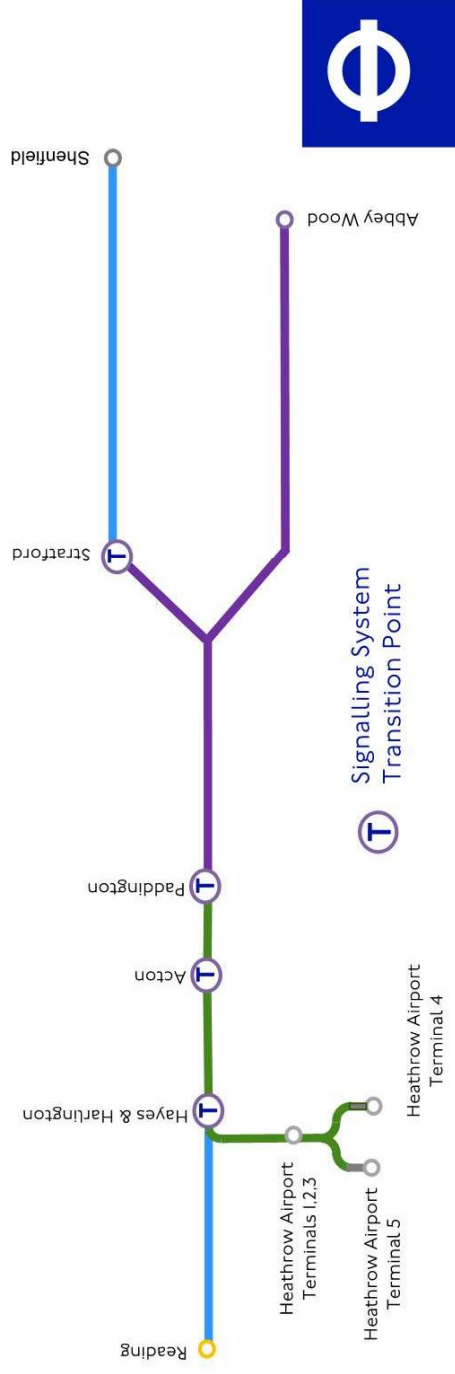
Elizabeth line trains

- Manufactured in the UK by Alstom
- 70 x 9 carriage trains (205 metres)
- 450 seats and a total capacity of 1,500 passengers per train
- 140 kph top speed
- Regenerative braking
- 3 signalling systems



Three Signalling Systems on the Elizabeth line

- The trains must work with 3 different signalling systems
 - CBTC (Automatic train control)
 - TPWS (Train Protection and Warning System)
 - ETCS (European Train Control System)
- Automatic transition between each system



Elizabeth line- fleet management



(6) 日立レール説明資料



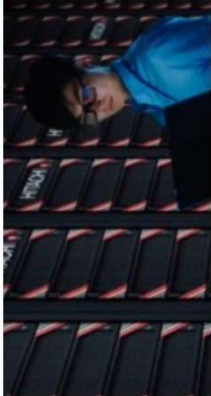
Hitachi Group at a glance

HITACHI

KEY FACTS (FY2024)

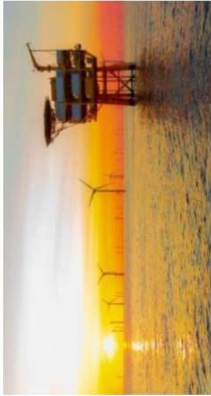
Revenues: 9.8 Trillion Yen (59.7 Billion Euro)
Employees: 282,743 (as of March 31, 2025)

Digital
Systems and
Services 29%



Transform social
infrastructure
through the
integration of digital
and OT 

Energy 27%



Provide sustainable
energy to all 

Mobility 12%



Offer safe,
comfortable and
green mobility 

Connective
Industries 32%



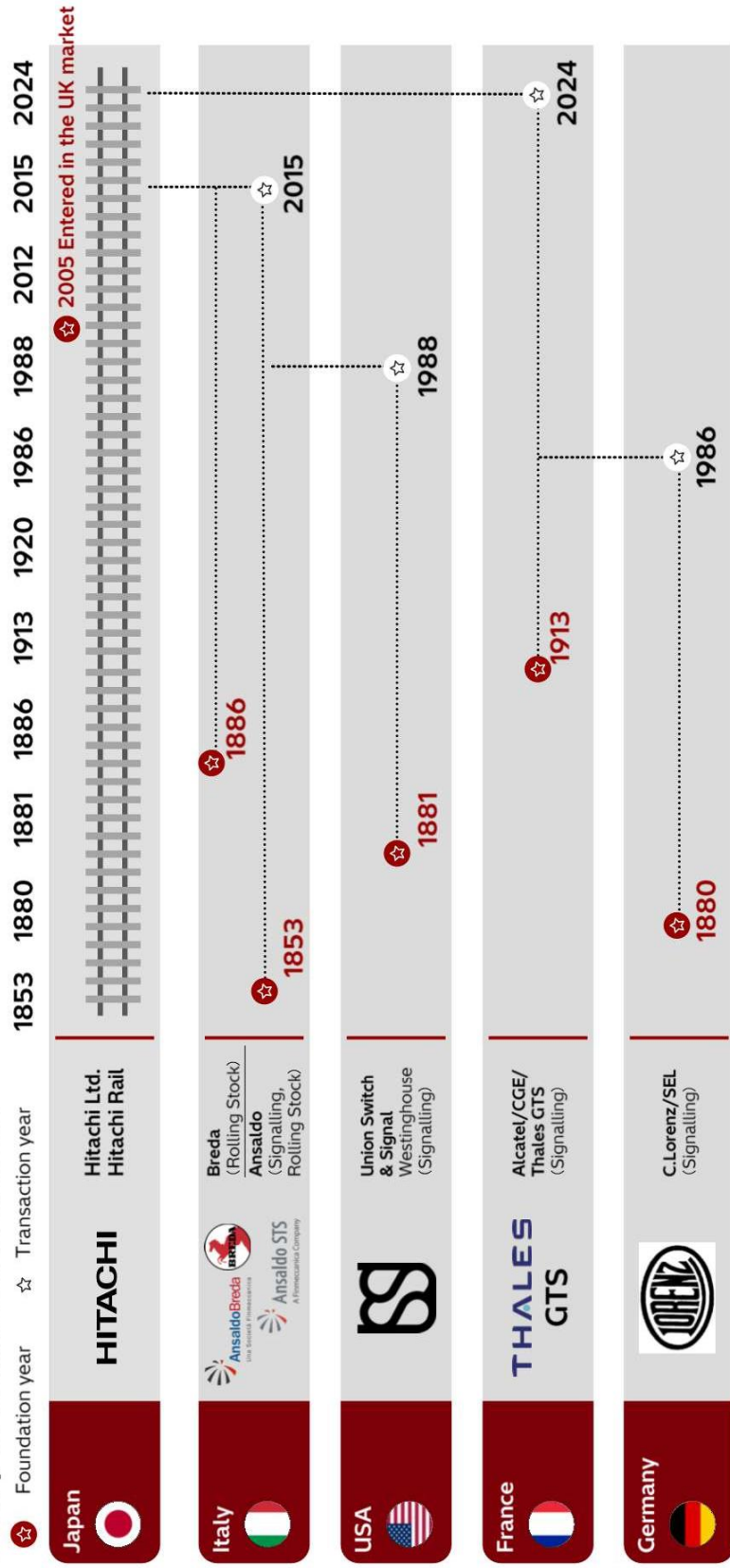
Improve on-site
productivity with
products and OT
knowledge 

Global presence with footprint in 50+ countries



*1 Markets where Hitachi Rail has either a manufacturing facility and/or a main office *2 Countries mainly served with project offices

History of Hitachi rail business



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Strategic objectives of GTS acquisition

HITACHI



Gain global scale advantage

Hitachi Rail is now a major Rail Signalling player in Western Europe, North America and Middle East

2x
Rail Control business



Get access to new attractive geographies

Hitachi Rail to build upon GTS' global & complementary footprint (Germany, Spain for Mainline Signalling & NAM for Urban Rail Signalling) to create cross-selling & turnkey opportunities (ME & SEA)



As new markets



Shift revenue mix towards SW-based businesses

Hitachi Rail to build upon GTS capabilities to become a digital business with double digit profitability

54% to >70%
shift in revenue mix towards SW-based solutions



Build on GTS to expand competences

Hitachi Rail will leverage GTS' talent pool and know-how to expand and strengthen its technical core competences

>6,000
GTS Engineers

Metro References in Major Cities



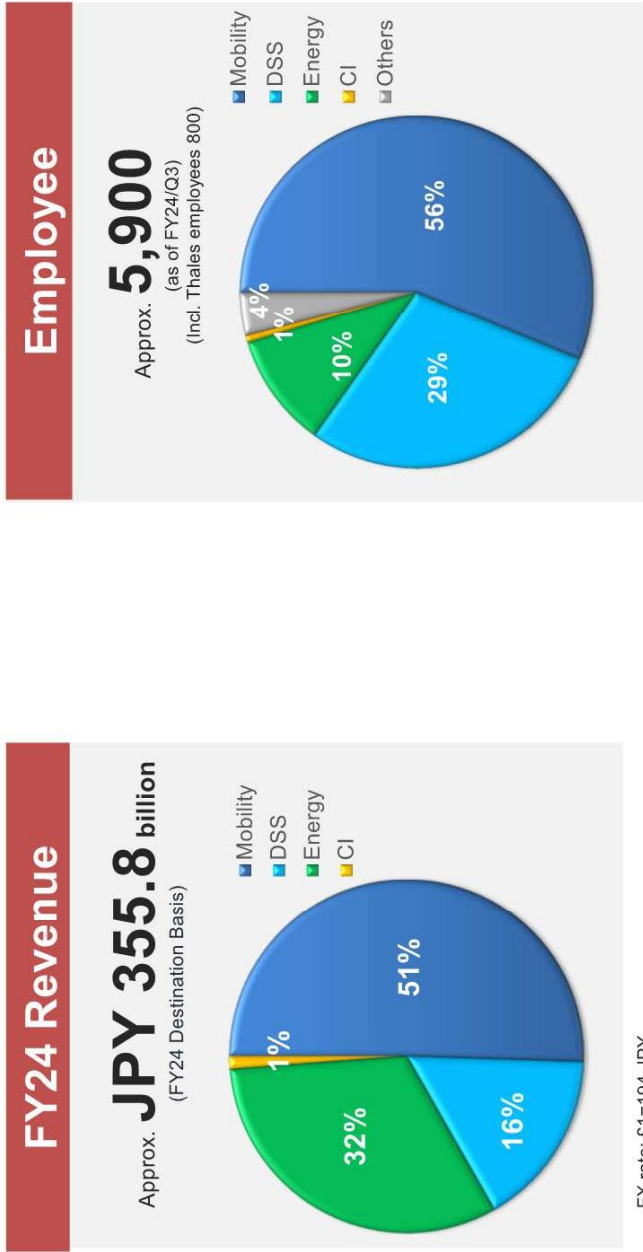
8 (x) Number of lines by city

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HITACHI

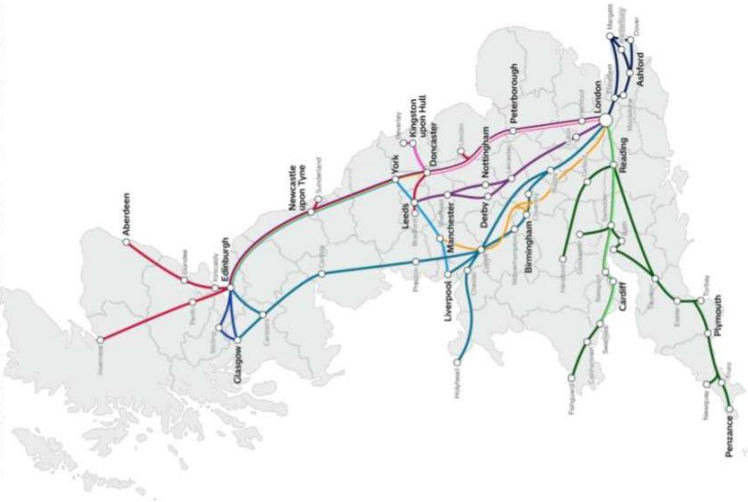
Hitachi in the UK

- Hitachi achieved ca. JPY 355.8 billion revenue in the UK focusing on Green and Digital businesses.
- There are Hitachi EMEA Regional Headquarters, Rail Global HQs, and rolling manufacturing facility in the UK.



FX rate: £1=194 JPY

Hitachi Rail UK Overview



- ▶ Major UK Operations: **15 years**
- ▶ Global HQ: **London**
- ▶ Hitachi has Vehicles and Signalling business: **80:20 split in revenue**
- ▶ Number of Permanent Employees: **3,300**
- ▶ Major Facilities (Depots/Factory): **20**
- ▶ Number of Assets (Trains) in Operation: **+300**
- ▶ Number of Major Clients: **18 (UK Govt., Network Rail, HS2, TfL, Great British Railways)**
- ▶ Train Reliability: **Lumo most fleet reliable UK fleet for 12 months**
- ▶ Total supply chain spend since 2013: **+£3 billion**
- ▶ Vehicles Annual Economic Benefit (GVA): **£654 Million**