

# BALANCING SUSTAINABILITY WITH OPERATIONAL EFFICIENCY


HUTCHISON PORTS (UK)


At HPUK, meeting our customer needs is a priority. Our sustainability approach is not only the right thing for our planet and future generations, but also supports our customer's in achieving their own sustainability goals.



# OUR SUSTAINABLE FUTURE

## Our sustainability aims

 OUR ENVIRONMENT	Net-zero by 2035
	Remove diesel from operation
	Invest in renewable energy
	Protect our planet

 OUR PEOPLE	Enhance safety and wellbeing
	Diverse and Inclusive culture
	Sustainable career opportunities
	Community engagement

 OUR BUSINESS	Grow responsibly
	Adopt ethical and sustainable business practices
	Sustainable procurement



We will work together as One Team to achieve our sustainability aims, becoming the preferred supply chain partner, dedicated to building a sustainable future.

# DELIVERING NET ZERO



*Develop the HPUK decarbonisation plan to deliver Net Zero Scopes 1 & 2 Greenhouse Gas emissions by 2035 and Scope 3 before 2050.*

We will work pro-actively to deliver our near term and long-term Net Zero targets, following the best available scientific methods.

## Objectives

- Collect and analyse verifiable emissions data to monitor performance along our Net Zero pathway.
- Work with partners to incorporate renewable energy and decarbonisation solutions into planned port development.
- Collaborate with HPH ports globally to share best practices in implementation of emission free technologies and supply chain decarbonisation.



# WHERE ARE WE NOW

## Our Environment

- Deliver Net Zero 2035 target with an established investment plan.
- Eliminate Scope 2 with the renewable supply
- Electric IT's by 2024
- Electric Remote Control RTG's by 2025
- 100 x Autonomous Trucks by 2025
- Enhanced Air Quality Monitoring procedures
- Delivering our Go Green Programme including tree planting and beach cleans





# THE CHALLENGES

Modification of existing assets

Integration of new and developing technology with an operational terminal

Developing the workforce

Aligning significant capital investment

Building a deliverable plan where technological uncertainty exists



# THE WORLD'S LEADING PORT NETWORK



## A collage of eight images arranged in a circular pattern, each showing a different industrial application of AUMA actuators. The images include: 1) A conveyor system with a white AUMA actuator. 2) A blue AUMA actuator in a factory setting. 3) A green AUMA actuator on a conveyor. 4) A blue AUMA actuator on a conveyor. 5) A blue AUMA actuator on a conveyor. 6) A blue AUMA actuator on a conveyor. 7) A blue AUMA actuator on a conveyor. 8) A blue AUMA actuator on a conveyor.





A large, stylized blue 'V' shape that forms part of the top-left corner of the slide.

**IN 2024, VAHLE GETS  
THE WORLD MOVING.**





# Simplified Container Terminal Overview



## Ship to Shore / Quay Cranes



## Vessels / Ferries



## RMG Cranes / ASC



## Mobile Equipment (AGV / TT)



## RTG Cranes



## 1.0 ELECTRIFICATION

Insulated conductor rails 1000V, 1000A with aluminium/stainless steel

## 2.0 POSITIONING

Precise position feedback with a contactless reading head

## 3.0 DATA COMMUNICATION

Interference-free and safe data & video

2020 - 300 Mbps

2023 - 600 Mbps

2024 - 1 Gbps

## 4.0 - AUTOMATION

Combination of electrification, positioning and data communication for remote control



# Case study – Great Britain, HPH UK – Port of Felixstowe

## Innovations and Milestones

2014 – today



Brownfield

66 ZPMC RTGs



RTG Retrofit

59 blocks (15,3 km)





# Case study – Great Britain, HPH UK – Port of Felixstowe

## Innovations and Milestones

2020 – today



Greenfield



8 Remote ZPMC  
AeRTGCs

17 Remote KC  
AeRTGCs



Container Blocks

18 blocks (5,2 km)





# Automation of Port Equipment

## Upgrade any Yard Crane | Increase the flexibility

### Festoonless STS



#### Technical benefits

- ✓ Minimize weight movement
- ✓ High trolley speed, up to 600 m/min
- ✓ No influences by wind / heavy rain / ice
- ✓ No cable loops and no storage area
- ✓ Extremely low maintenance

#### Operator's benefits

- ✓ Faster container handling through speed increase of the main hoist (trolley & lift)
- ✓ Higher container stacking level
- ✓ High availability and absolute reliable
- ✓ Optimized Total Cost of Ownership

### RMG/ASC with busbars



#### Technical benefits

- ✓ Reduce weight on board of the ASC and cost of the ASC
- ✓ Reduce cost of control system
- ✓ Increase speed & performance
- ✓ Extremely low maintenance

#### Operator's benefits

- ✓ Faster container handling through increased travel speed
- ✓ High availability and absolute reliable Data Communication & Positioning system
- ✓ Optimized Total Cost of Ownership

### AeRTGCs



#### Technical benefits

- ✓ Flexible yard operation
- ✓ Automatic connection system
- ✓ Autosteering
- ✓ Seamless synchronisation
- ✓ Reduced GenSet maintenance cost (if any)

#### Operator's benefits

- ✓ Flexible yard operation
- ✓ Optimized OPEX by reduced fuel & idle time
- ✓ Reduction of CO<sub>2</sub> and Noise pollution
- ✓ Smart / Predictive Maintenance
- ✓ Optimized Total Cost of Ownership

**YOUR VISION COUNTS:  
WE ARE READY**

**MEET US AT:  
STAND E20**

