



# Spreaders for the greenest terminals

Dominic Lim  
27 October 2022

**BROMMA**





**BROMMA**

## CLIMATE CHANGE ZERO CARBON BY 2040

By means of our ambitious decarbonization strategy, we aim to be carbon neutral as a group by 2040, with an intermediate target of 28% CO2 reduction by 2030 (with 2019 as the baseline). To this end, we are fully committed to:

1. Replacing fossil fuels or reducing their use to the minimum
2. The use of renewable or carbon-neutral energy
3. Maximizing efficiency by investing in innovative low-emission technologies and constructing passive buildings
4. Compensation for any residual volumes as the last option (as low as reasonably possible)

**The future of container terminals is electric and green**



### Key Environmental Focus

Waste Management	<ul style="list-style-type: none"> <li>▪ Hazardous</li> <li>▪ Non- Hazardous Cargoes</li> </ul>
Energy Consumption	<ul style="list-style-type: none"> <li>▪ Renewable Energy</li> <li>▪ Non - Renewable Energy</li> </ul>
Greenhouse Gas Emission (GHG)	<ul style="list-style-type: none"> <li>▪ <b>Scope 1</b> (Direct Emission from Owned/Controlled resources e.g., Combustion fuel)</li> <li>▪ <b>Scope 2</b> (Indirect Emission from Purchased Energy)</li> <li>▪ <b>Scope 3</b> (Indirect Emission resulted from activities not controlled by the organisation but the organisation is impacted in its supply chain)</li> </ul>
Water Consumption	<ul style="list-style-type: none"> <li>▪ Water Inflows/ Withdrawal</li> <li>▪ Water Outflows/ Discharges</li> </ul>

### TAKING CLIMATE ACTION

#### TARGETS/COMMITMENTS

#### 2021 PROGRESS

#### EMISSIONS

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>▪ Reduce absolute Scope 1 &amp; 2 carbon emissions by 50% by 2030, and by 75% by 2040, against a 2019 baseline year</li> <li>▪ Achieve net zero carbon emissions by 2050</li> <li>▪ Establish a Scope 3 inventory by 2022 as a first step towards setting a Scope 3 emissions reduction target</li> </ul> | <ul style="list-style-type: none"> <li>▪ No reduction in Scope 1 and 2 carbon emissions as a result of global industry disruptions creating inefficiencies, an expanding business portfolio and a lack of critical viable technological solutions</li> <li>▪ Embarked on a Scope 3 screening in the second half of 2021 to establish our Scope 3 inventory and develop an understanding of our entire carbon footprint</li> </ul> |
|--|---|

#### ENERGY

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Aim for 90% of our Rubber Tyred Gantry Cranes (RTGs) to be electric or hybrid by 2030</li> </ul> | <ul style="list-style-type: none"> <li>▪ Reached close to 50% electrification or hybridisation for RTGs in 2021</li> </ul> |
|---|--|

#### CONTRIBUTING TO:



Commitments **We will take leadership in the decarbonisation of logistics**

We will deliver on our customer commitment to decarbonise their supply chains in time and our societal commitment to act and have impact in this decade


Strategic targets  
*All targets are for end of year*

<p><b>2040:</b></p> <ul style="list-style-type: none"> <li>• Net zero across the business</li> <li>• 100% green solutions to customers</li> </ul>	<p><b>2030:</b></p> <ul style="list-style-type: none"> <li>• Aligned with the Science Based Targets initiative 1.5°C pathway</li> <li>• Industry-leading green customer offerings across the supply chain</li> </ul>
---	--

Overview of all ESG categories

Climate change  
Environment and ecosystems (incl. ship recycling)



An aerial photograph of a dense, green forest. A paved road winds through the trees, curving from the left side towards the right. The road is dark grey and contrasts with the vibrant green of the forest canopy. The text is overlaid on the road, centered horizontally and vertically.

**Container terminal operators require solutions which can help reaching their sustainability goals without compromising productivity**

# Brommas climate ambition is to cut down greenhouse emissions by 50 percent 2030



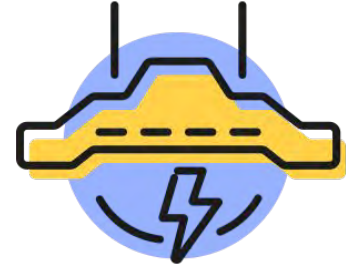
## Materials Supply & Use ambitions

- Integration of CO2 reduction criteria in Bromma sourcing decisions
- Evaluation of fossil-free steel for inclusion in Bromma spreaders (partnership with SSAB)



## Own operations ambitions

- Evaluation, reduction, and replacement of the energy used across Bromma
- Reduce, Reuse and Recycle Program across Bromma
- Company-wide use of electric vehicles



## Use of spreaders ambitions

- Boosting our all-electric offering for all crane spreader applications
- Further developing energy-efficient solutions for hydraulic spreaders

# Bromma started transitioning to electric spreaders over 20 years ago



**2001**

First all-electric yard spreader



**2007**

First generation all-electric ship-to-shore spreader



**2022**

Second generation all-electric separating twin STS spreader - STS45E G2 Plus

# No compromises on productivity

	STS45 Hydraulic	STS45E G2 PLUS
Spreader Weight	12.7 MT	12.6 MT
Telescopic Speed		
20'-40'	25 sec	18 sec
20'-45'	30 sec	21 sec
Twin Expand/ Retract	20 sec	15 sec
Twinlift Up/ Down	8 sec	6 sec
Twistlock Rotation	1.5 sec	1 sec
Maximum Power Consumption	7.5kW	11kW
Power Source	Hydraulic	Electrical

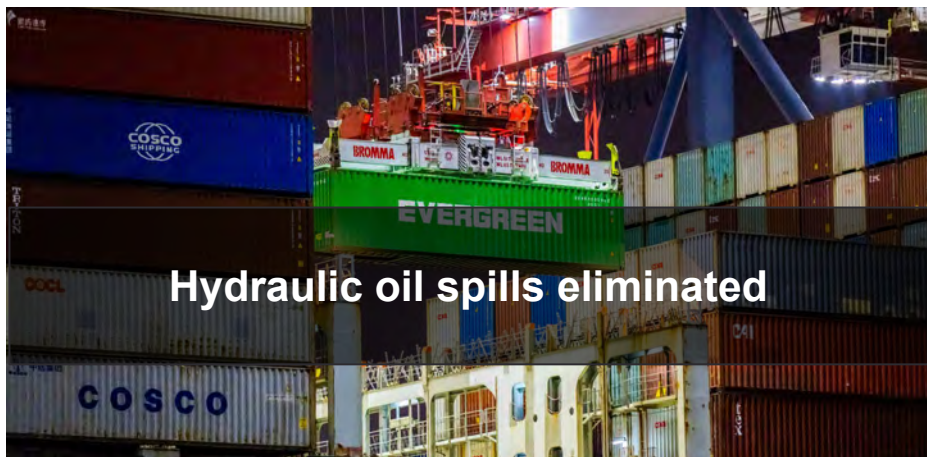




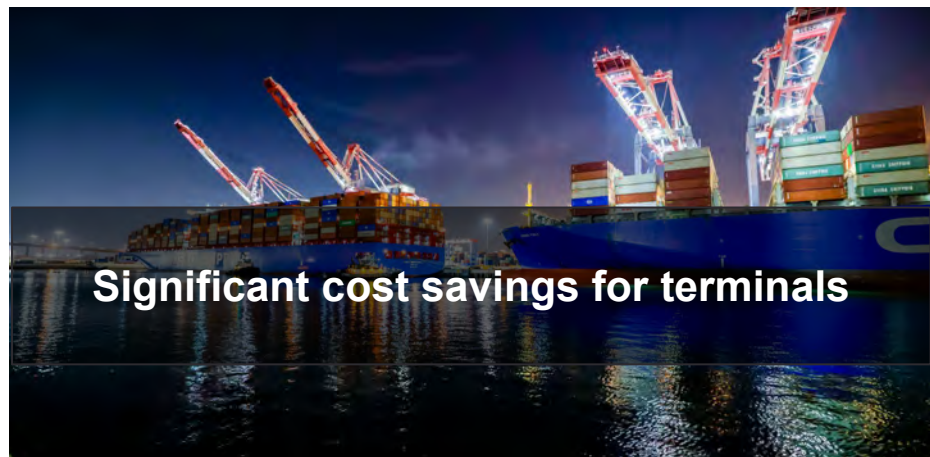
**Reduces energy consumption by 90%**



**Saves 15 ton CO2 emissions**

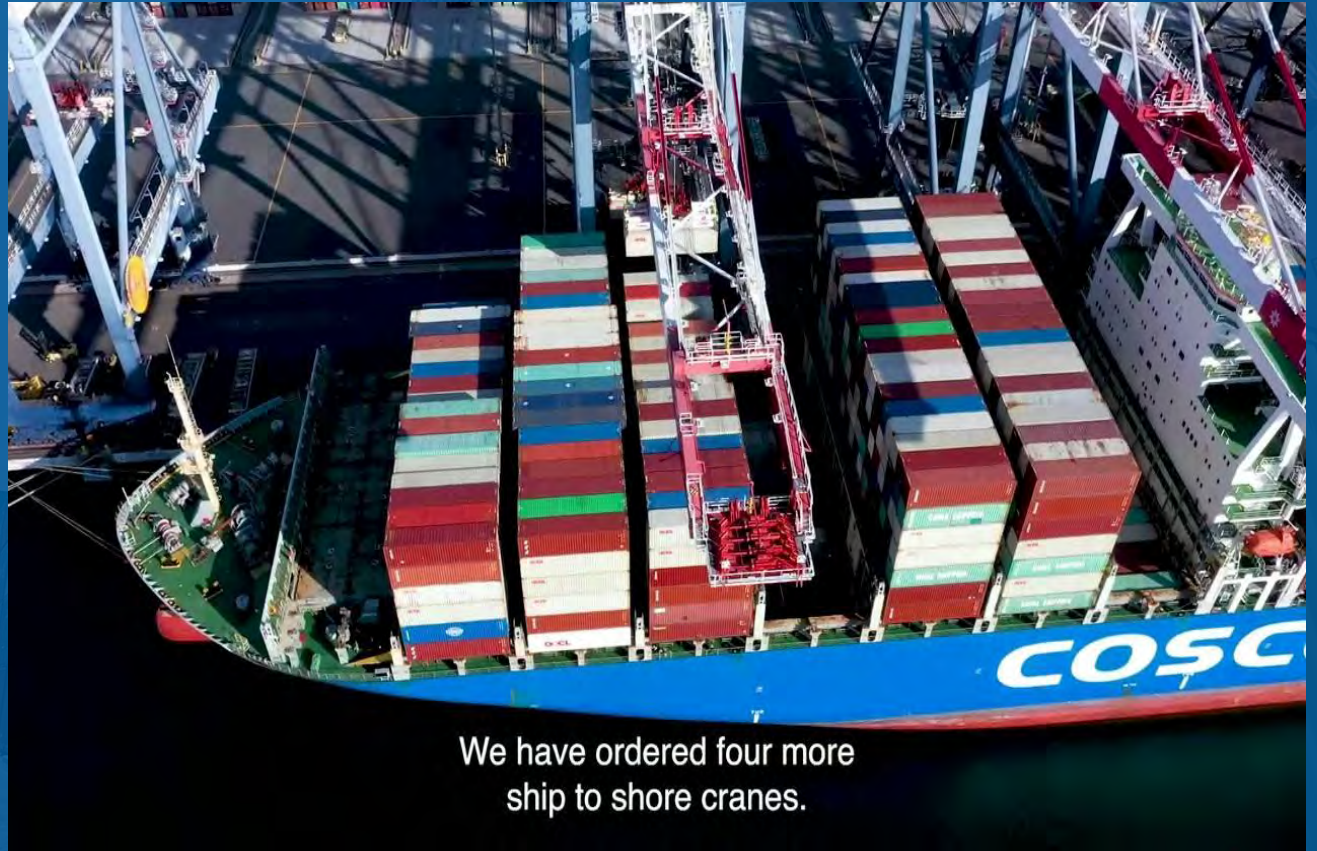


**Hydraulic oil spills eliminated**



**Significant cost savings for terminals**

“



We have ordered four more  
ship to shore cranes.

# Game changer

- Emission savings
- Productivity specifications
- No risk of hydraulic oil spills



# Come see us at booth 26

**BROMMA**

