

# HAMBURGER HAFEN UND LOGISTIK AG

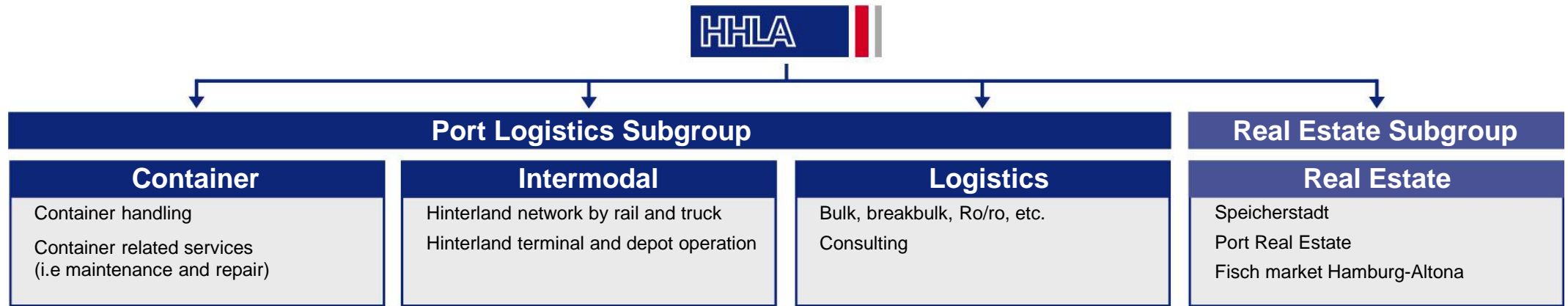
Decarbonisation @ HHLA Terminals

Brussels, 27. June 2018

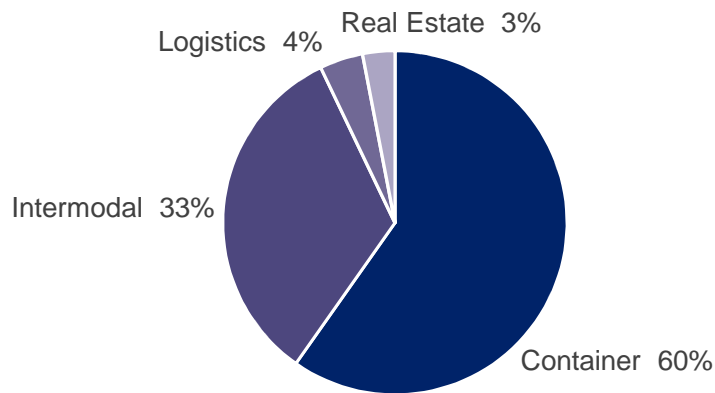


# HHLA – Organisation 2017

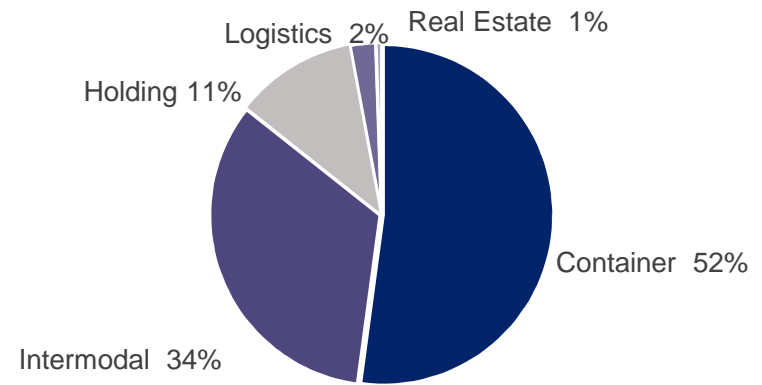
In 2017 HHLA handled 7,2 mn TEU



Split of revenue by segments (total: € 1.252 billion)

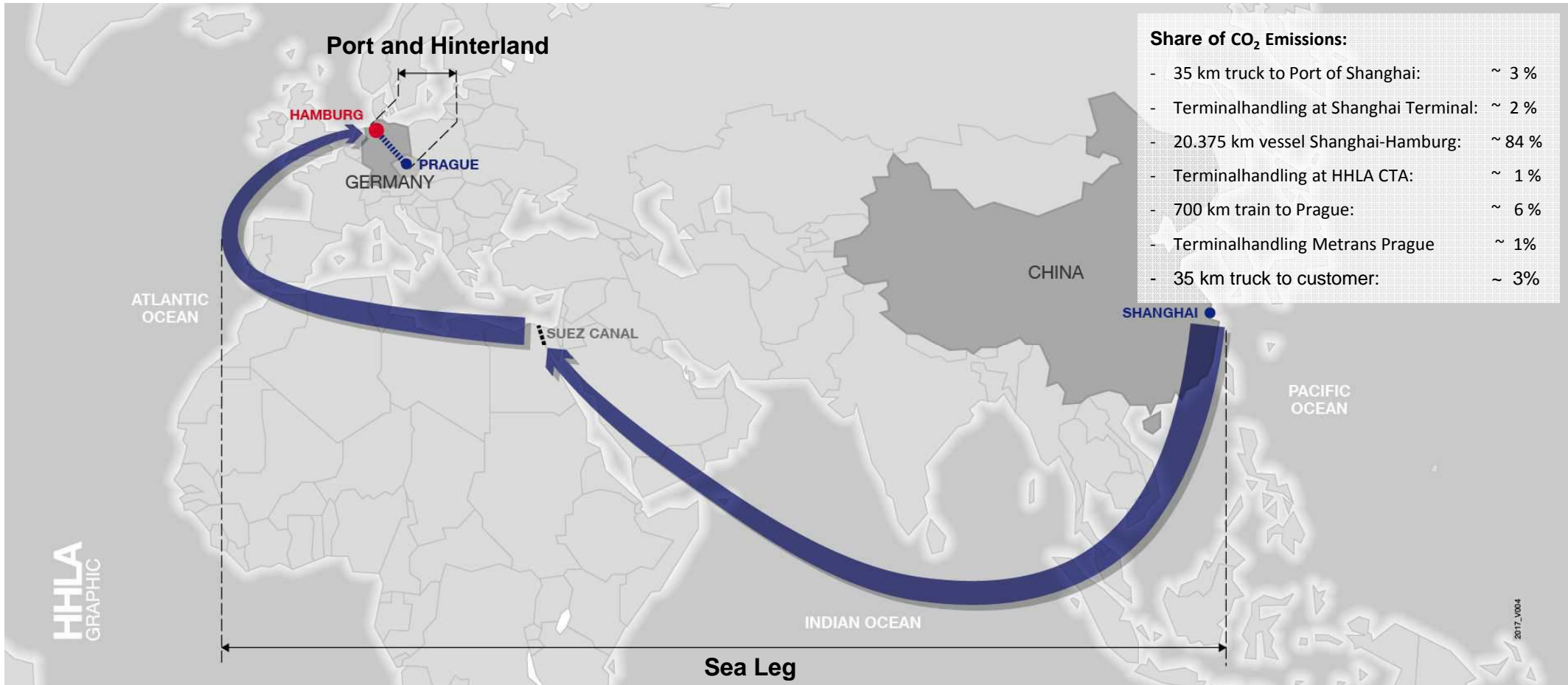


Split of employees by segments (total: 5,581)



# HHLA Terminals as Part of the Transport Chain

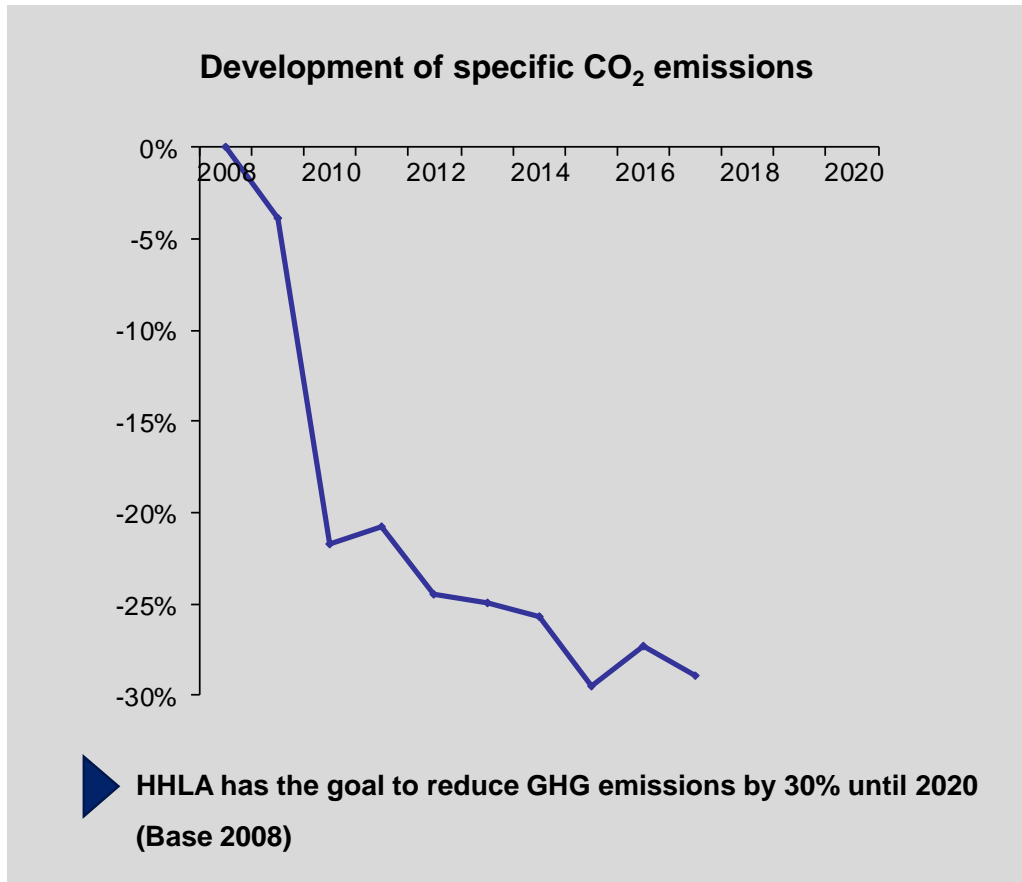
On the route from Shanghai to Prague the share of CO<sub>2</sub> of HHLA is ~8%



# HHLA Sustainability Strategy and Targets

In 2017 HHLA has already achieved 28,9% reduction of specific CO2 emissions

## HHLA GHG Reduction Target



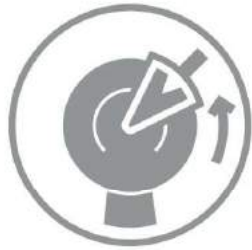
## Three Pillar Sustainability Strategy

ECOLOGY	SOCIAL ISSUES	ECONOMY
Ecological transport chains	Occupational health and safety	Business partners
Climate protection/energy efficiency	HR development	Stockholders
Conserving space	Responsibility in the community	Added value
Nature conservation		

- We network actively with other logistic players and organize sustainable and environmental friendly transport chains.
- We use all technical sensible and economical justifiable possibilities to reduce CO2 emissions in our business.
- We use the scarce harbour and logistics zones as efficient as possible.
- We keep the environmental intervention as low as possible and are engaged in the conservation of our natural resources

# HVCC – Hamburg Vessel Coordination Center

Optimization due to central coordination and big data analysis



If sailing with 14 kn  
instead of 18 kn

# 22 t

bunker savings

# 66 t

less CO<sub>2</sub>-emissions



# Terminal Interface to the Shipping Lines

## Alternative power supply for ocean vessels during dwell time

### LNG Hybrid Barge



- HHLA is using the LNG Hybrid Barge in wintertime (in summertime the Barge supplies cruiseships with clean energy)

### LNG PowerPacs



- HHLA is testing this innovative solution from Becker Marine Systems

### On Shore Power Supply

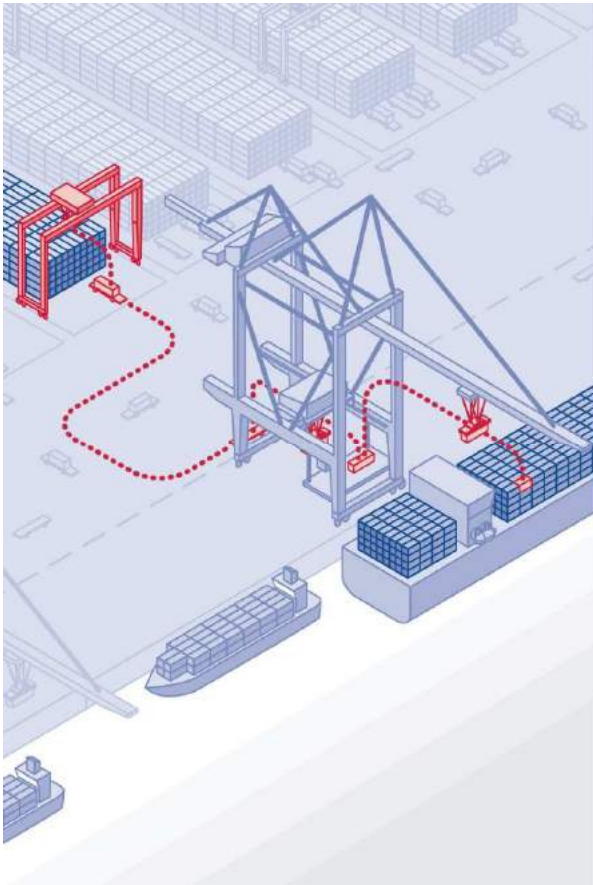


- HHLA is supporting a working group to evaluate possibilities for an on shore power supply at container terminals

# Terminal Process Optimization

Combined loading and discharging improves the energy efficiency and minimizes the dwell time

## Dual Cycle Technology



### Conventional

#### Discharging

1. Move  Loaded trip

2. Move  Empty trip

#### Loading

1. Move  Loaded trip

2. Move  Empty trip

### Dual Cycle

#### Discharging/Loading

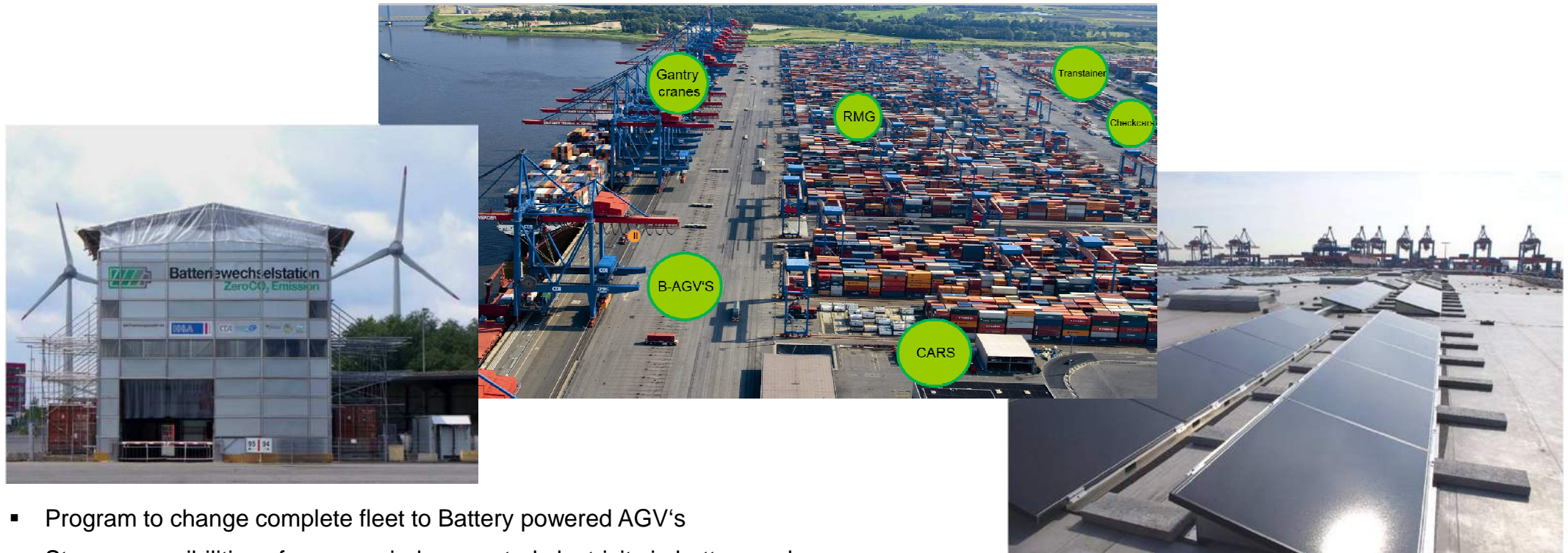
1. Move  Loaded trip

2. Move  Loaded trip

- **Current principle:** Four moves of bridge for two boxes
- **Future principle:** Two moves of bridge for two boxes
- **No move in vain:** Unnecessary empty moves are obsolete
- **Advantage:** Noticeably more throughput in the same amount of time

# Substitution of diesel through electrified machines

Decreasing CO<sub>2</sub> emissions and air pollution



- Program to change complete fleet to Battery powered AGV's
- Storage possibilities of excess wind generated electricity in batterypacks
- Reduction of CO<sub>2</sub> emissions by appr. 15.500 tonnes p.a.

Two large Solarplants which produce about 570.000 kWh CO<sub>2</sub> - free power annually



Thank you for your attention

