

# Niedersachsen Ports

## The Pilot Show

- › June 16th 2022; Brussels
- › DUAL Ports Final  
Conference



# Agenda

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# Agenda

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# Agenda



# LED Pilot on Sustainable Port Lighting

Project objective: Development of a new innovative sustainable lighting

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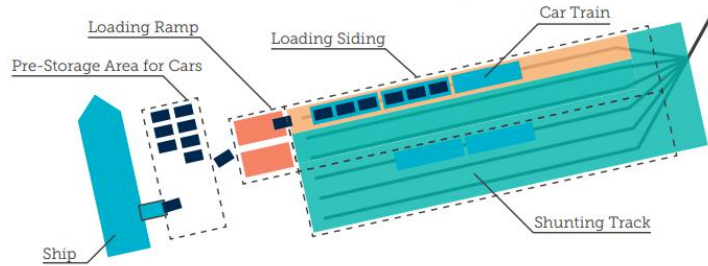
- › Initial Situation: 25% of Energy = Port lighting
- › Targets:
  - › How can we reduce energy consumption and CO2?
  - › How can we make lighting future oriented and smart?
  - › How can we improve safety and reduce light emissions?



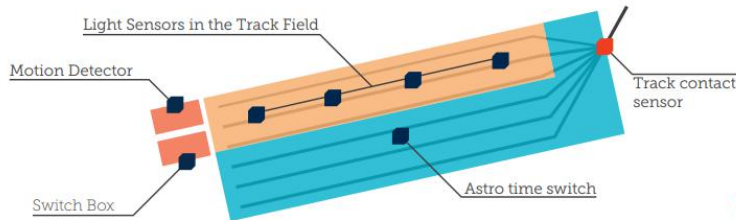
# LED Pilot on Sustainable Port Lighting

Project objective: Development of a new innovative sustainable lighting

## Different activities need different light



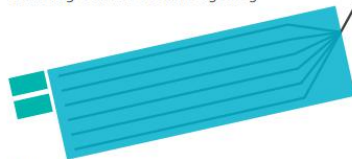
## Sensors provide intelligent lighting control



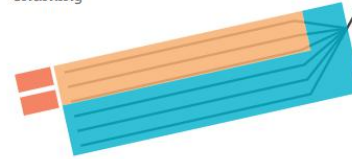
## Lighting scenarios



Loading Track 1 + Basic Lighting



Shunting



Loading Track 3 + shunting

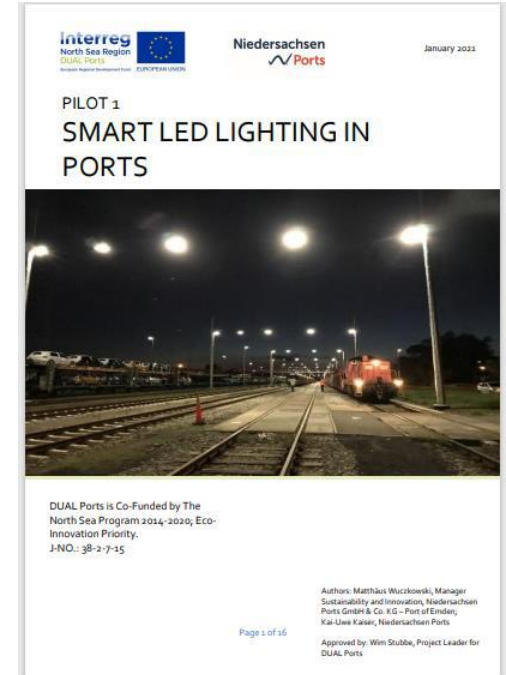
150 lux 30 lux 15 lux 5 lux



# LED Pilot on Sustainable Port Lighting

## Lessons learned

- › LED technology as most-efficient solution for port requirements
- › Digital solutions are more prone to faults during implementation and special expertise for maintenance and upkeep is crucial
- › 26% CO2 saving with LED technology → 43% CO2 saving with LED in combination with smart technology
- › Spin-off: 100% LED Target for all port locations till 2025 (approx. 40% reached already)
- › In Process: Guideline for environmentally friendly lighting





# Green Port Officer Pilot

## Three major fields of action in pilot

### › **Strategy and Management**

Developing and implementing a sustainability strategy that focuses on economical, ecological and social aspects and a sustainability management

### › **Projects & Measures**

Triggering and coordination of sustainability measures and projects

### › **Communication**

Internal Communication: Intranet, meetings  
External Communication: Press releases, articles, homepage, conferences

Strategy &  
Management

Projects &  
Measures

Communication



# Green Port Officer Pilot

## Strategy and Management

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# Green Port Of Strategy and Manag



### Climate & air

- + Direct **greenhouse gas emissions** have been reduced by a further 25% compared with 2017.
- 100% of the **outdoor lighting** on NPorts-operated areas has been converted to **LEDs**.
- + Number of **ship calls** to which we grant an environmental discount rises to 500 per year
- The proportion of passenger cars powered by **alternative fuels** has risen to 50% compared with 2018.

### Nature & resources

- + Four **environmental projects** have been implemented.<sup>3</sup>
- + NPorts has a certified **environmental management system** PERS.
- The **waste separation rate** for our waste has risen.

### Employees & safety

- + The average number of hours for **continuing education and further training** has risen by 10% compared with 2018.<sup>1</sup>
- + The **accident rate** remains below the average for comparable industries.<sup>2</sup>
- The certification **"Work and Family"** is preserved.

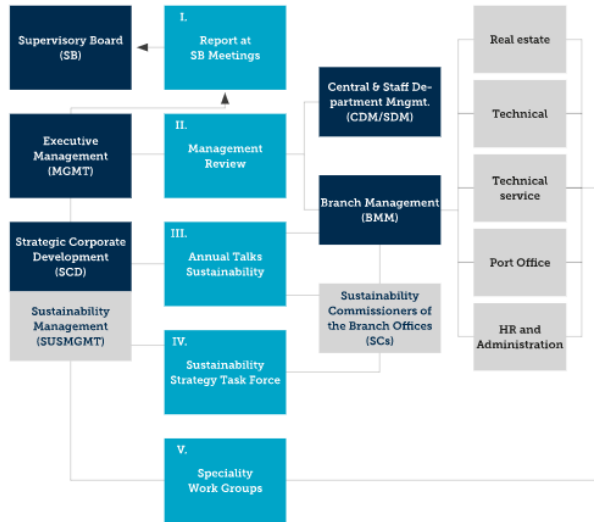
### Customers & region

- + The **total volume handled** increased by 10 % compared to 2018.
- Customer satisfaction** rose to 75% compared to 2018.<sup>4</sup>



# Green Port Officer Pilot

## Strategy and Management



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- I. Report During SB Meetings**  
**Involved Parties:** SB, MGMT  
**Frequency:** annually  
**Tasks:** Progress Monitoring and Reporting of the MGMT to the SB
- II. Management Review**  
**Involved Parties:** MGMT, CDM, SDM, BMM  
**Frequency:** annually  
**Tasks:** Verification of Corporate and Sustainability Goals and Suggestions for Improvement for Their Implementation
- III. Annual Talks Sustainability**  
**Involved Parties:** SCD/SUSMGMT, BMM, SCs  
**Frequency:** annually  
**Tasks:** Planning for the Implementation of the Sustainability Goals and Drafting of the General Annual Planning
- IV. Task Force Sustainability Strategy**  
**Involved Parties:** SCD/SUSMGMT, SCs  
**Frequency:** Twice a Year  
**Tasks:** Verification of the Goals, Exchange, and Recommendations for Management Review
- V. Speciality Work Groups**  
**Involved Parties:** SCD/SUSMGMT, Departments  
**Frequency:** From 2 to 4 times a year  
**Tasks:** Exchange of Experiences and Development of Sustainability Measures



# Green Port Officer Pilot - Measures



## PV-Systems



7 roofs; 150kWp installed

Outlook: Rent roof space for solar systems

# Green Port Officer Pilot



## Lighting



- Several additional pilots in the ports
- LED Transformation now (40% implemented)

Outlook: Smart, remote controlled LED-lighting in all ports

# Green Port Officer Pilot



## Mobility- cars



- Electrification of port fleet (25 alternative cars; 15 e-charging points)
- Alternative fuel for ships (GTL)
- Cargo bikes

Outlook: More electrified vehicles; H2?



# Green Port Officer Pilot



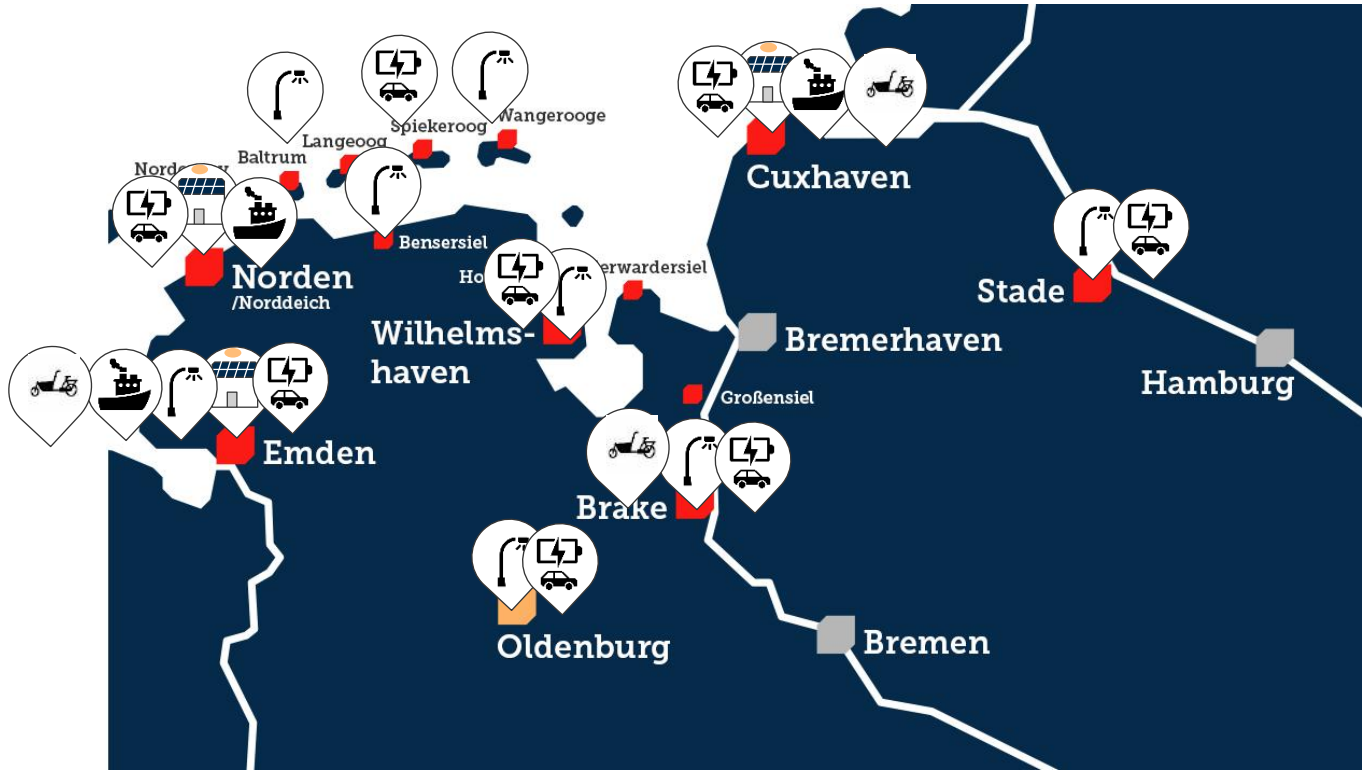
## Mobility - ships



- Electrification of port fleet (25 alternative cars; 15 e-charging points)
- Alternative fuel for ships (GTL)
- Cargo bikes

Outlook: Real alternatives needed;  
Concepts in planning

# Green Port Officer Pilot



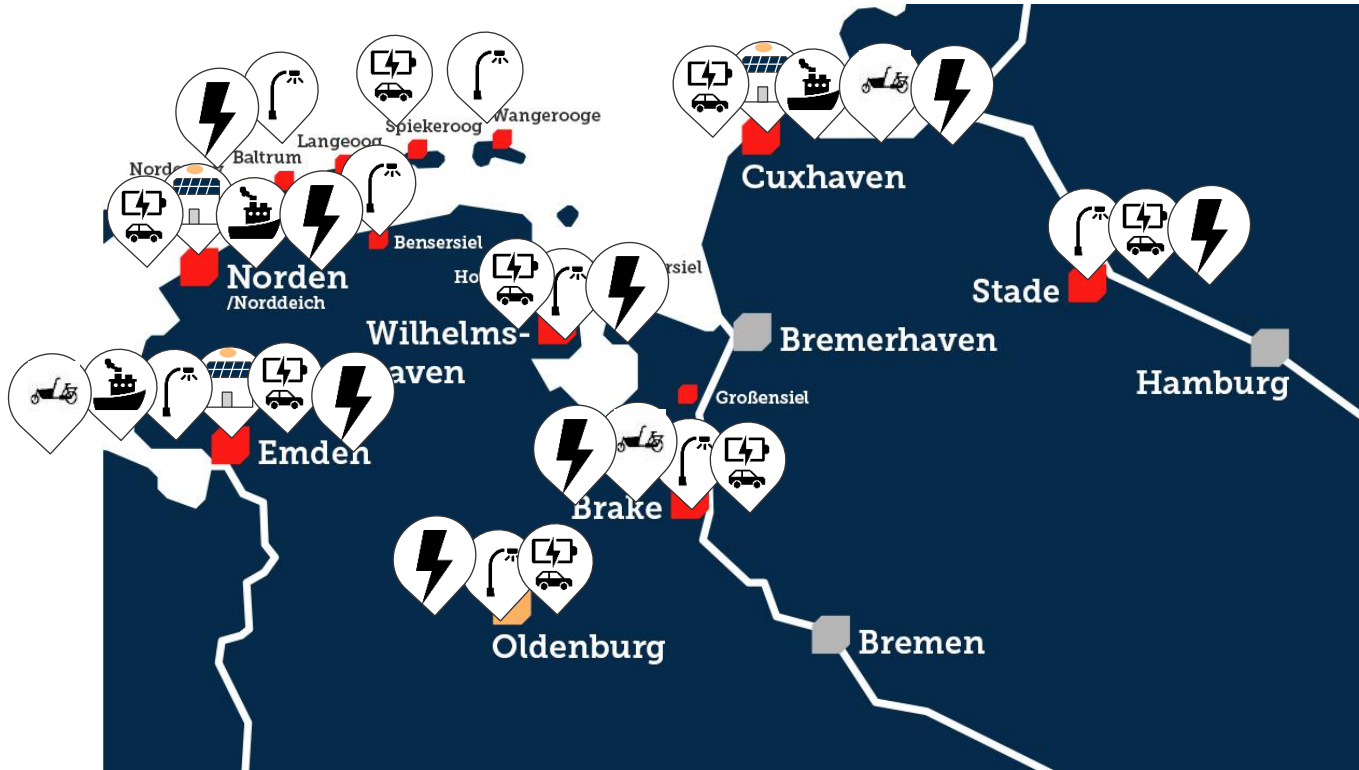
## Mobility - bikes



- Electrification of port fleet (25 alternative cars; 15 e-charging points)
- Alternative fuel for ships (GTL)
- Cargo bikes

Outlook: Expand bike fleet

# Green Port Officer Pilot



## Green Energy

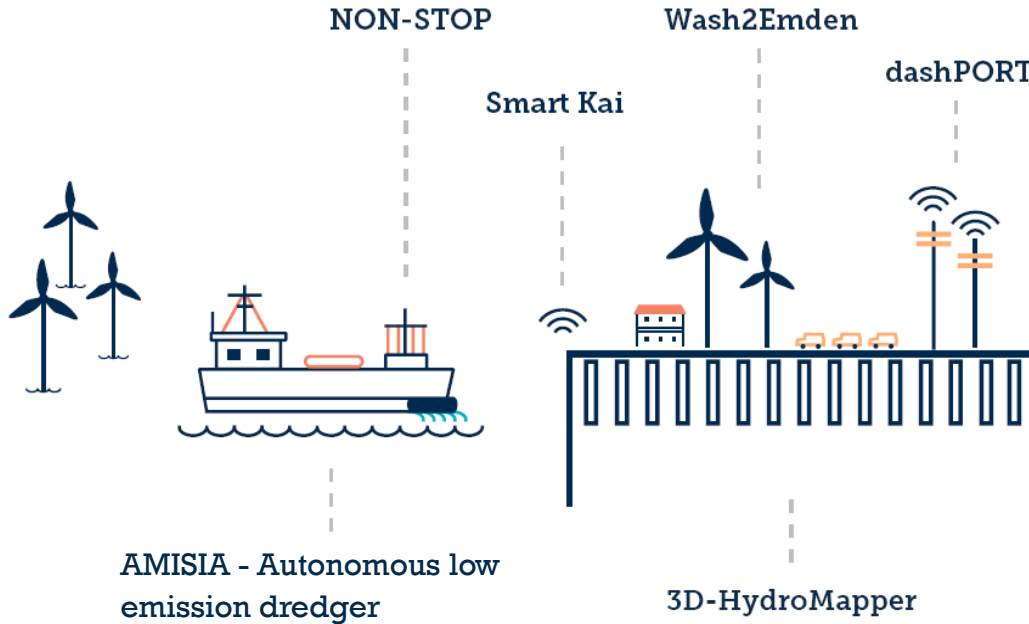


- 100% green energy in all ports

Outlook: Potential study for production of own renewable energy

# Green Port Officer Pilot

## Projects & Measures



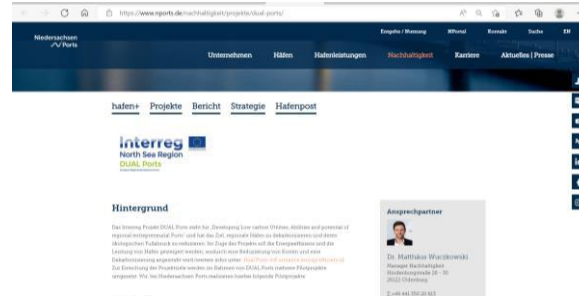
Strategy & Management

Projects & Measures

Communication

# Green Port Officer Pilot

## Communication & Knowledge sharing



# Green Port Officer Pilot

## Lessons learned

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- › **Just do it:** Every step helps! A lot of low hanging fruits available out there!
- › **Involve others:** The port knows more than it knows
- › **Ongoing Process:** Sustainability is not a project – it's a mindset and needs to be integrated into DNA
- › **Be patient:** Culture changes slowly – a systematic and strategic approach helps
- › **Everybodies business:** Every employee needs to be a green port officer
- › **Money Talks:** Limited budget is a barrier but funding is an accelerator
- › **Transformation just started:** We are right at the beginning of a transformation



# Thank you for your attention!

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