

Building the Port of the Future

Smart shipping

Piet Opstaele



**Port of
Antwerp**



A satellite image showing a wide, winding river delta system, likely the Scheldt river, flowing from the top left towards the bottom right. The river is a light brownish-green color, contrasting with the surrounding green land. The land is a mix of forested areas and some developed regions with buildings and roads. The river branches out into several smaller channels as it moves inland. The text "80 kilometers inland" is overlaid on the right side of the image, indicating the distance from the coast to the point shown.

80 kilometers inland

Belgium's biggest economic driver



235

Million tonnes of
maritime freight



12,068
hectares



20.7
billion €
added value



146,000
jobs

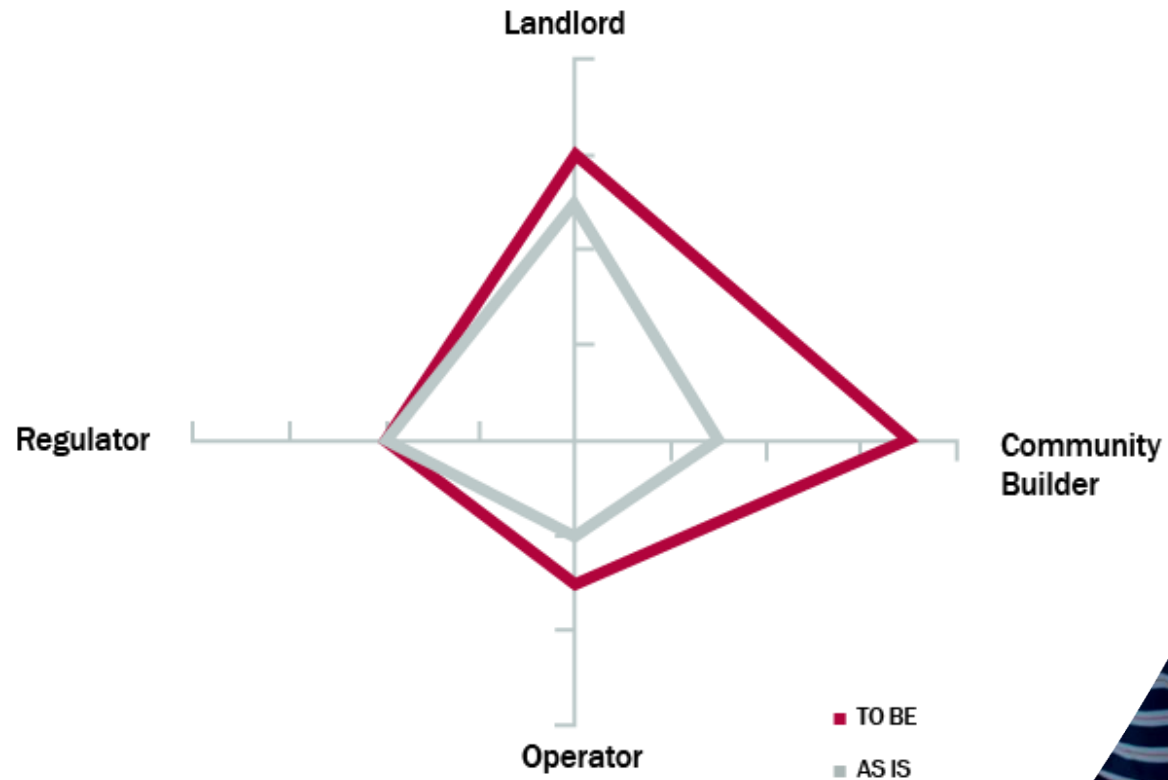


1,000
companies



4.8%
GDP

Active key role as community builder



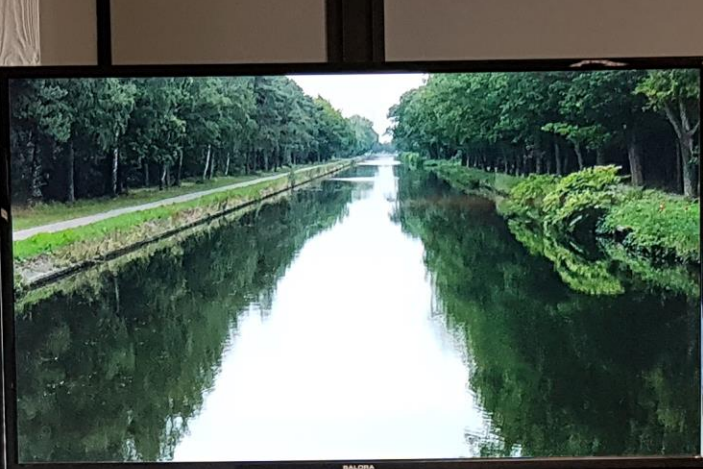
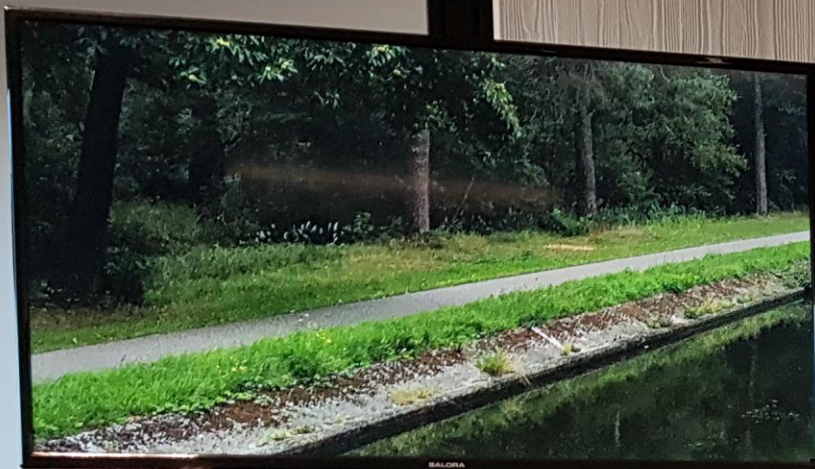


SMART
SHIPS

Autonomous monitoring sedimentation







SCC - Workspace

Home View Admin Help

Conning Display

Speed: 0 Km/h, Heading: 0°

Geo Coordinates: Latitude 51° 13' 45.101" N, Longitude 4° 24' 26.200" E

Propulsion: Engine 1 Throttle 40.04 %, Engine 2 Throttle 40.25 %

Rudder 1 Position 0°, Rudder 2 Position 0°

Waypoint Following: Mission Id Undefined, Mission State -1, Waypoint Distance

SCC - Workspace

Home Admin Help

SYSTEM: JoyStick State - Details

Coordinates: Slider 1 (80.04272528131075), Slider 2 (80.23024791913562), Slider 3, Slider 4

Buttons: Button 1, Button 2, Button 3, Button 4

Messages

JoyStick Name	JoyStick Id	Raw Offset	Value	Timestamp	Sequence
Throttle - HOTAS Warthog	2	20	39293	14782015	1547075
Throttle - HOTAS Warthog	2	8	39157	14442062	1552709
Throttle - HOTAS Warthog	2	8	39161	14273796	1532282
Throttle - HOTAS Warthog	2	8	39169	13953390	1473484
Throttle - HOTAS Warthog	2	20	39297	13602031	1458879
Throttle - HOTAS Warthog	2	20	39305	13353203	1419151
Throttle - HOTAS Warthog	2	20	39313	13300343	1410752
Throttle - HOTAS Warthog	2	8	39177	13287250	1408708
Throttle - HOTAS Warthog	2	20	39321	13358175	1405403
Throttle - HOTAS Warthog	2	8	39181	13254809	1406279
Throttle - HOTAS Warthog	2	8	39186	13358386	1408143

SCC - Workspace

Home Admin Help

Start Engines, Stop Engines, Remote Control, Execution State, Speed Gain 0.00%

SYSTEM: Ship State - Details

General: Movement Waypoint Following

Operating

Ship Info (more): Controllers, Messages, AIS

Engine 1: State Undefined, RPM 0, Clutch Undefined, Rudder Position 0 %, Rudder 1 0 %, Rudder 2 0 %, Speed Gain 0 %

Engine 2: State Undefined, RPM 0, Clutch Undefined, Rudder Position 0 %, Rudder 1 0 %, Rudder 2 0 %, Speed Gain 0 %

Waypoint Following - Other: PLC IM Stop

SCC - Workspace

Home Admin Help

Start Engines, Stop Engines, Remote Control, Execution State, Speed Gain 0.00%

SYSTEM: Ship State - Details

General: Movement Waypoint Following

Operating

Ship Info (more): Controllers, Messages, AIS

Engine 1: State Undefined, RPM 0, Clutch Undefined, Rudder Position 0 %, Rudder 1 0 %, Rudder 2 0 %, Speed Gain 0 %

Engine 2: State Undefined, RPM 0, Clutch Undefined, Rudder Position 0 %, Rudder 1 0 %, Rudder 2 0 %, Speed Gain 0 %

Waypoint Following - Other: PLC IM Stop

SCC - Workspace

Home View Admin Help

Electronic Navigation Chart

Map showing a canal with waypoints and a ship icon.

Ship Id [Dev001]





First remote controlled inland ship



Port of Antwerp

[← BACK TO OVERVIEW](#)





APICA