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# Situational Awareness – Preparing for the autonomous future

Navtech, Seattle, 07.12.2022

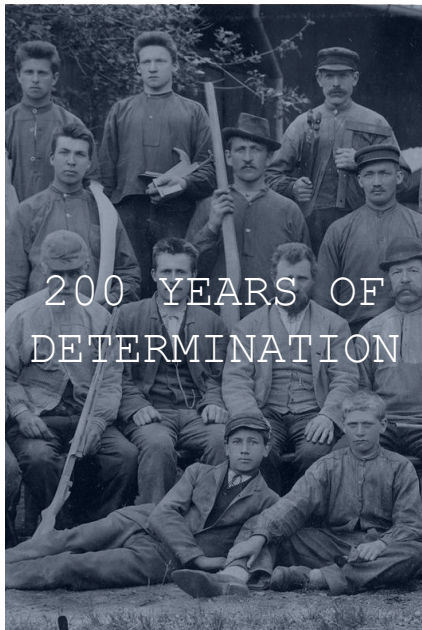
Kongsberg Seatex AS  
Cato Giil Eliassen  
Product Manager, Navigation and Infrastructure



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# 200 YEARS OF EXCELLENCE

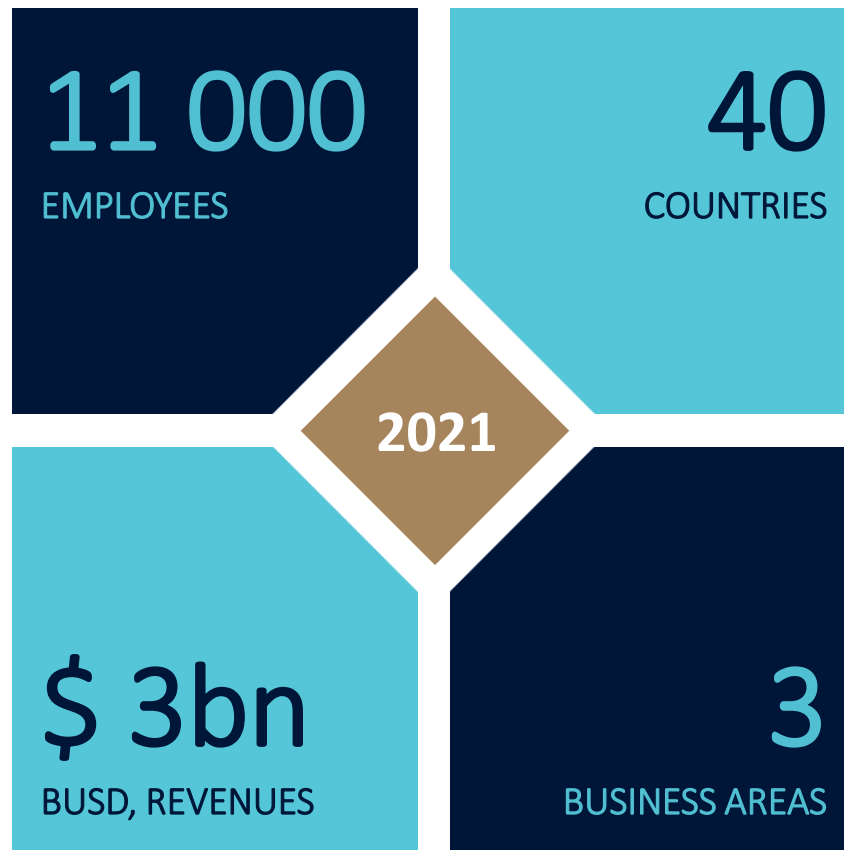
Two centuries of achievement, innovation and transformation  
—fueling a journey that has seen us start as a small munitions business  
in Norway and emerge as a pioneering global technology provider.





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## KONGSBERG SIZE AND SCOPE





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# A TECHNOLOGY POWER HOUSE WITH 3 STRONG BUSINESS AREAS

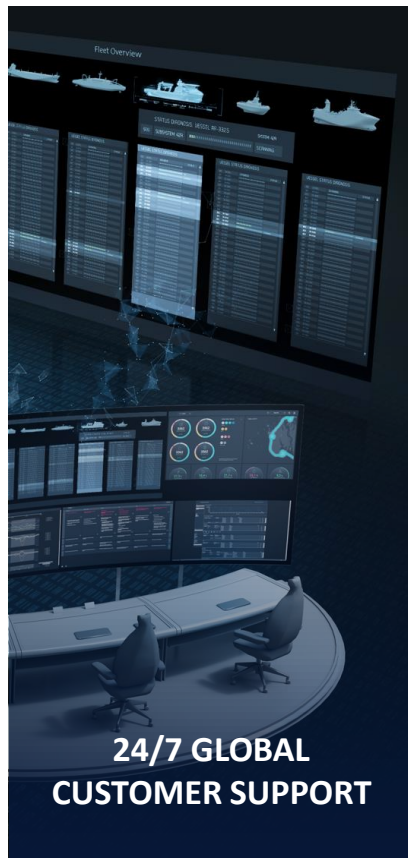




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# Kongsberg Maritime

BROADEST PORTFOLIO OF  
PRODUCTS  
FOR THE MARITIME  
INDUSTRY





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Kongsberg Seatex AS  
Location; Trondheim  
Employees; 130  
Established; 1984





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# Kongsberg Seatex AS

Kongsberg Seatex develops and supplies products and solutions for accurate positioning, communication, motion measurement and situational awareness for applications such as navigation and manoeuvring, offshore oil and gas, marine seismic, hydrography, surveying, maritime transport, autonomous ships, as well as communications and positioning infrastructure and NewSpace satellite payloads for maritime applications.



Dynamic Positioning  
Reference Systems



Attitude Determination  
Systems



Communication  
Solutions



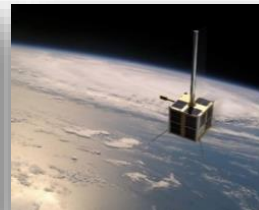
Sensor Solutions  
Autonomous Vessels



Marine Seismic  
Positioning and Control



Navigation and  
Infrastructure



Space Related Systems



ERG

# Situational Awareness

Reliable

Scalable

Integrated







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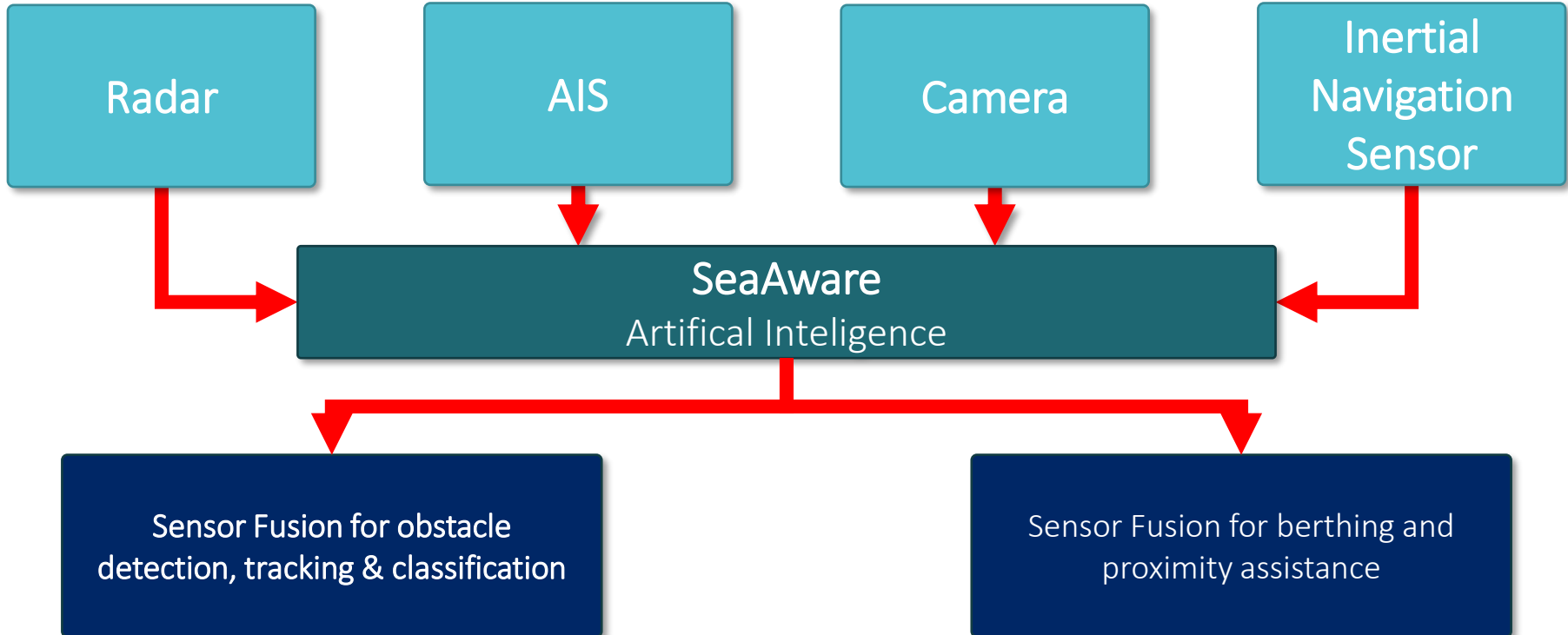
# The State of Situational Awareness in 2022





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# KONGSBERG Situational Awareness





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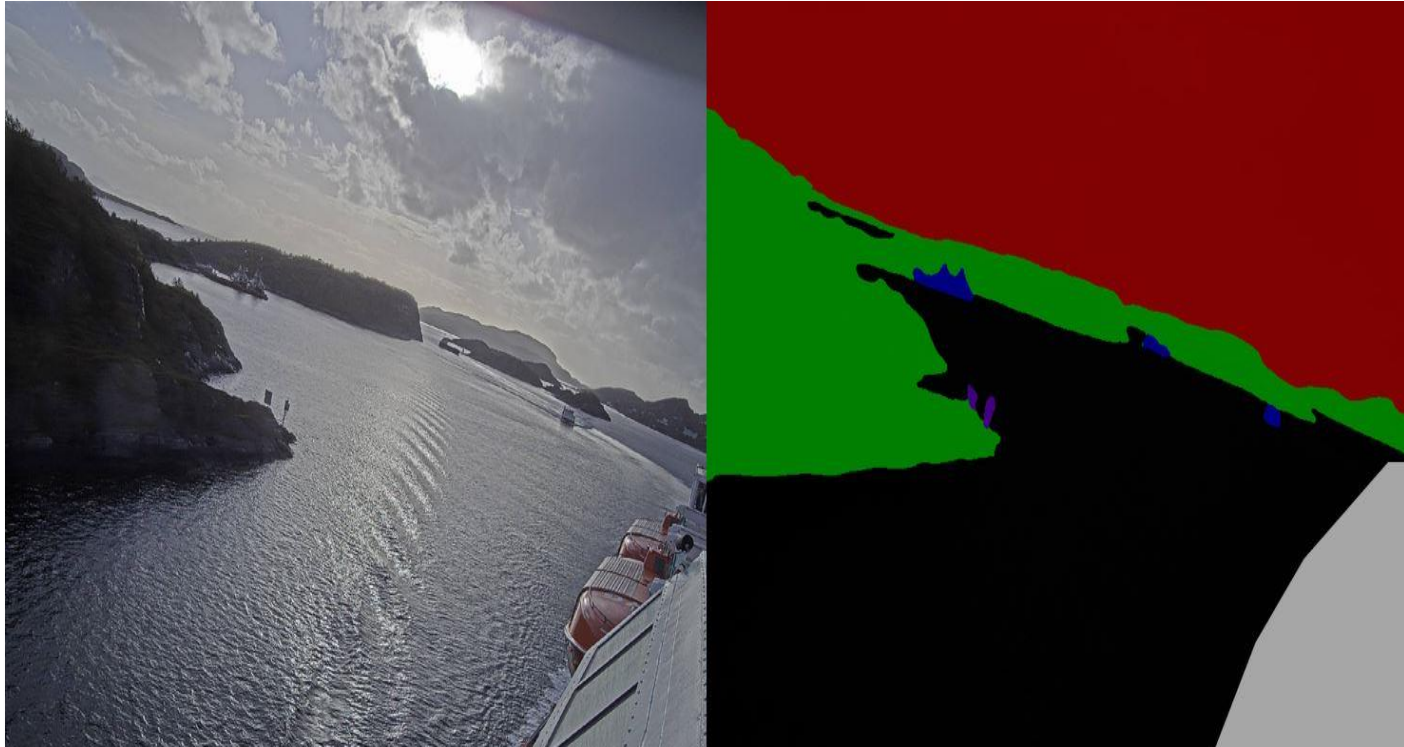
## Sensors: Camera





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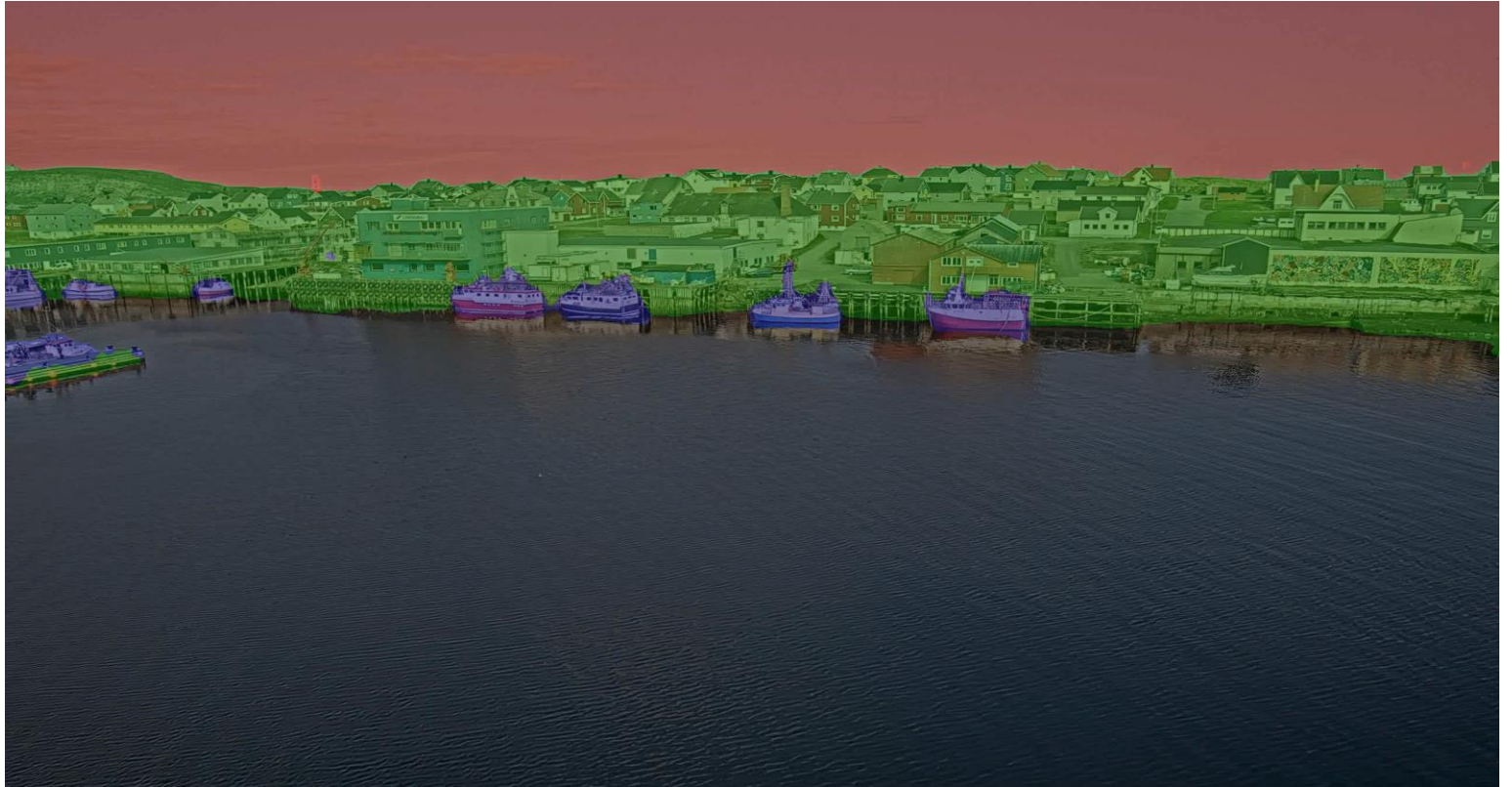
# Sensor Fusion: obstacle detection, tracking & classification





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# Sensor Fusion: obstacle detection, tracking & classification





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# SeaAware – Navigation Lookout

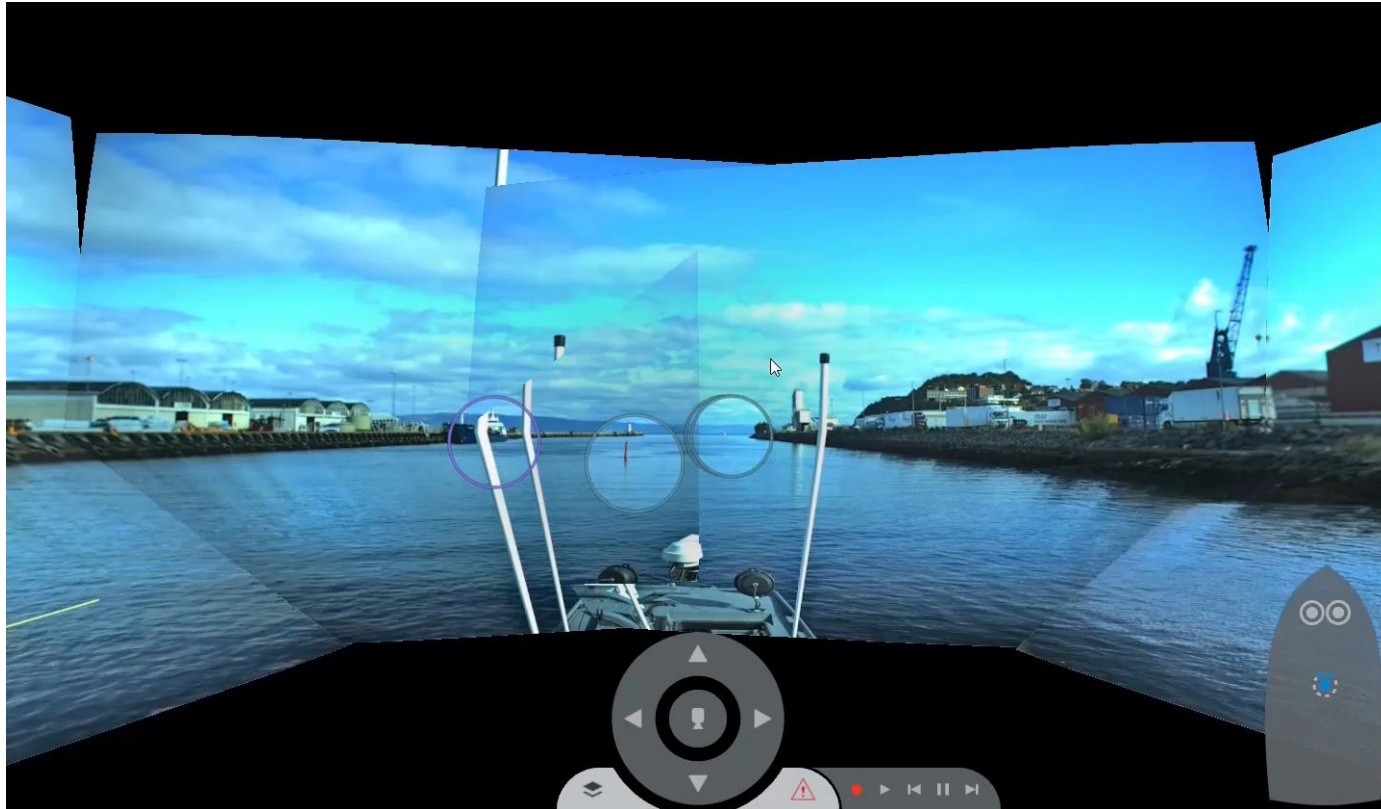
## Intelligent Data Fusion





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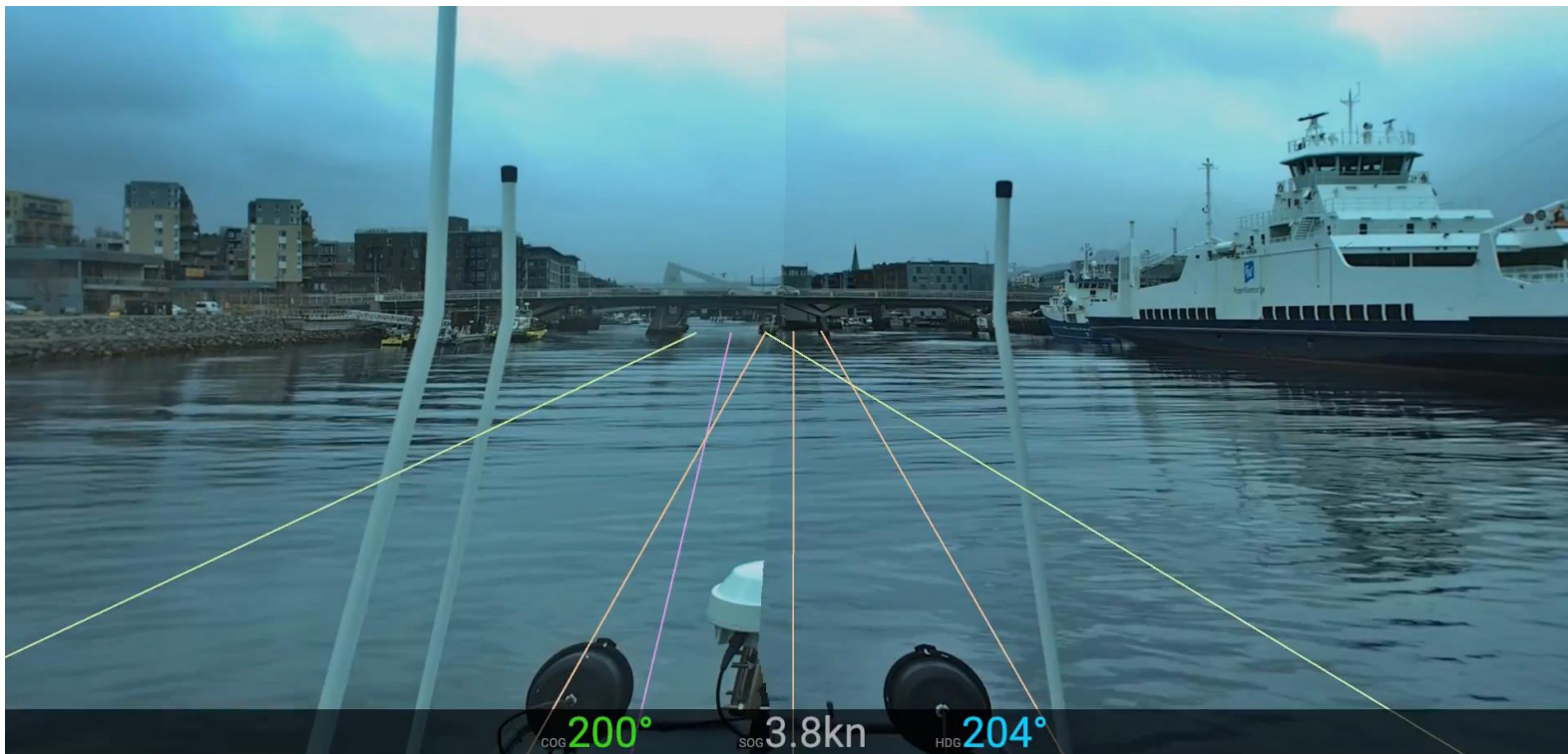
# Sensor Fusion: obstacle detection, tracking & classification





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# Sensor Fusion: Berthing and Proximity Assistance







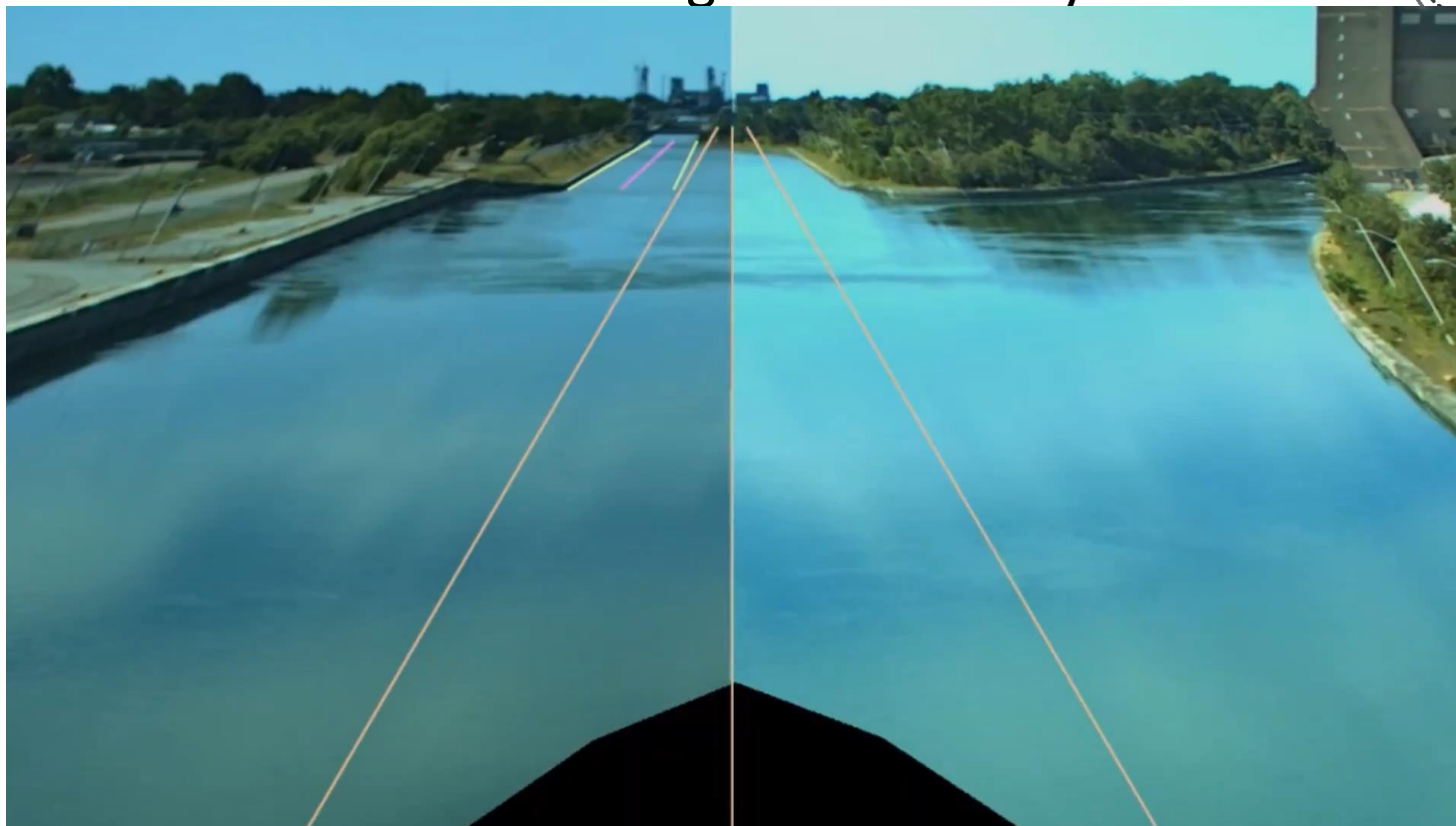
# Sensor Fusion: Berthing and Proximity Assistance





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# Sensor Fusion: Berthing and Proximity Assistance







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# The State Of Situational Awareness in 2025 ?





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