



# Modern Firefighting

## Building Future Proof Competencies

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# SIMWAVE

Centre of Excellence in  
Rotterdam  
with 60 simulators

Training coordinated with  
accredited partners world  
wide

State of the art career  
management platform to  
optimise human capital



SIMWAVE



# Simwave Training Solutions

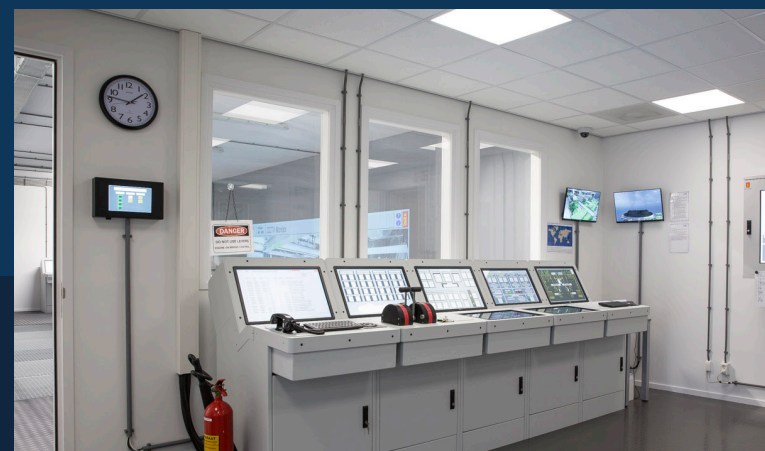
## Training

- Full Mission Simulators
- Part Task Simulators
- Online Training
- On board Training



## Assessments

- Knowledge Assessments
- Competency Assessments for Bridge & Engine
- Psychometric Assessments



## Applied Research

- Port Studies
- Maritime feasibility studies
- Mathematical modelling and visual database development





# React Emergency Response



**REACT**  
EMERGENCY RESPONSE







# Introduction

React Emergency Response is founded in 2019, with a view to establishing the highest quality team of specialists available. Our team currently comprises skilled maritime incident controllers, whose experience dates to 2003. The teams have backgrounds in various disciplines, including shipping, firefighting and hazardous materials experts. This level of diversity enables React to compose a perfect mix when selecting the best possible team for deployment.

All share a joint mission: to do their utmost to prevent loss of life, material and economic loss and ecological damage in the event of maritime incidents.



# Impact of evolving industries and regulations



## Alternative fuels

The industry is witnessing a significant shift towards alternative fuels, such as LNG, methanol and hydrogen.



## Hazardous/Chemical cargo

The transportation of hazardous cargo, including lithium-ion batteries, poses unique challenges and risks that demand comprehensive training and emergency response protocols. The transportation of chemicals is becoming increasingly prevalent, requiring seafarers to possess advanced knowledge and skills in handling, containment, and spill response



## STCW

STCW regulations cannot cope with today's industries advancements. It is likely that there will be an increase of accidents, environmental incidents, and threats to seafarer safety. Action is needed to update training standards and ensure that seafarers are adequately prepared to navigate the evolving risks of the maritime sector.





# Impact of modern industrie

**The pursuit of Global Sustainability, ensures change during incidents at sea and emergency response.**

- Alternative fuels, dangerous goods and lithium-ion create faster fire development and additional risks
- The complexity of ships and cargo is increasing
- Seafarers are expected to know more about cargo and its risks (new insights)
- The transport of hazardous materials is increasing, with ships at large certified to carry them



# FiFi Tugs & Emergency Response

Responding to incidents at sea is a joint effort of various disciplines.

The successful outcome of an incident depends on good cooperation between the various parties involved.

In particular, the use of tugs is crucial in fighting fires or HazMat incidents at sea



# Conclusion

- Increase of complexity firefighting at sea
- Additional risks
- Faster emergency response time required
- Role of fire tugs increasingly important
- Training to prepare for incidents essential





# Simwave & REACT Tugs & Emergency Response

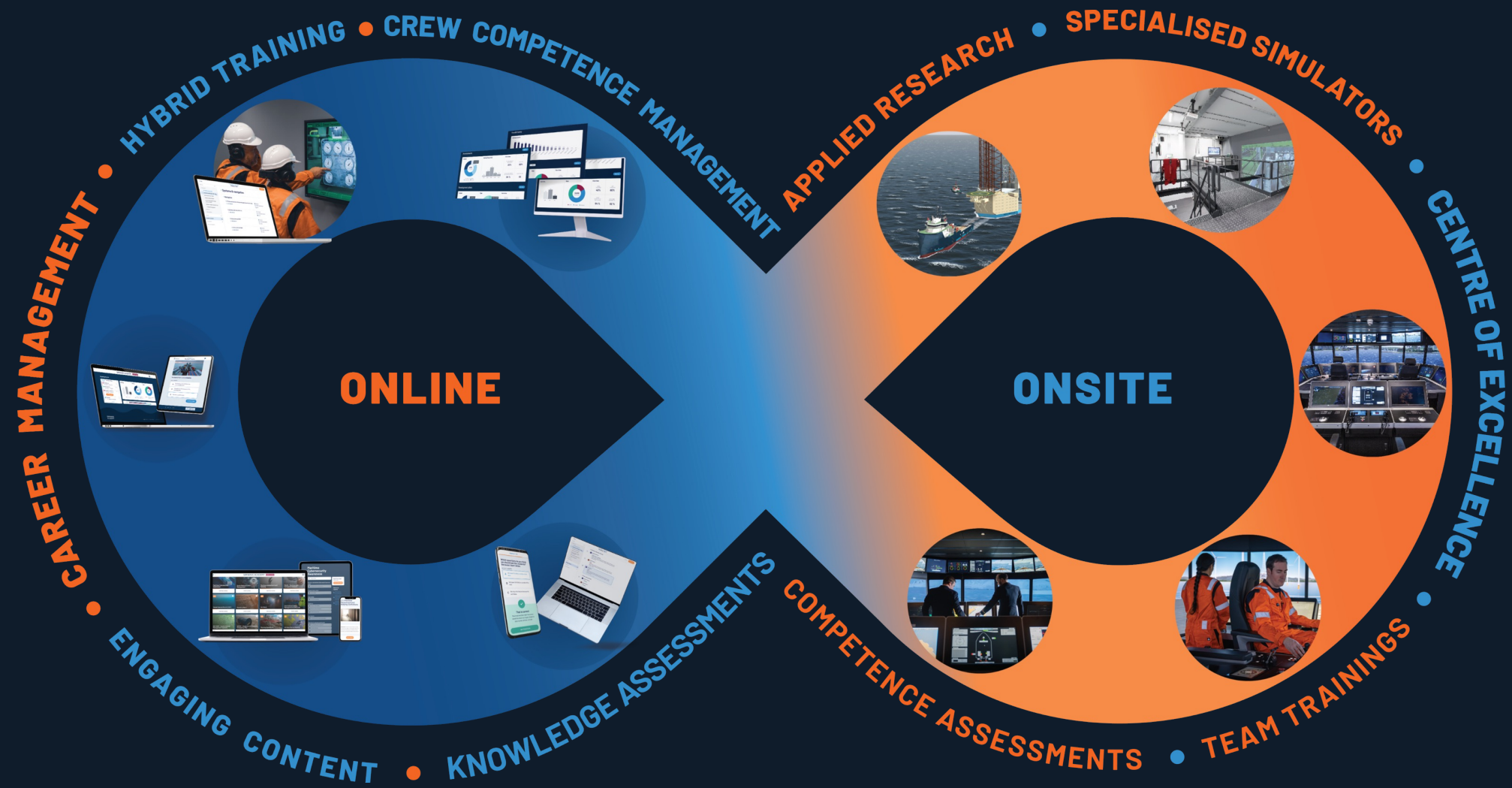
Together with Simwave, React is passionate about sharing practical experience with mariners to improve on-board safety.

Trainings are developed based on practical experience to give mariners an honest educated chance when fighting an incident



# Simwave & REACT Vision

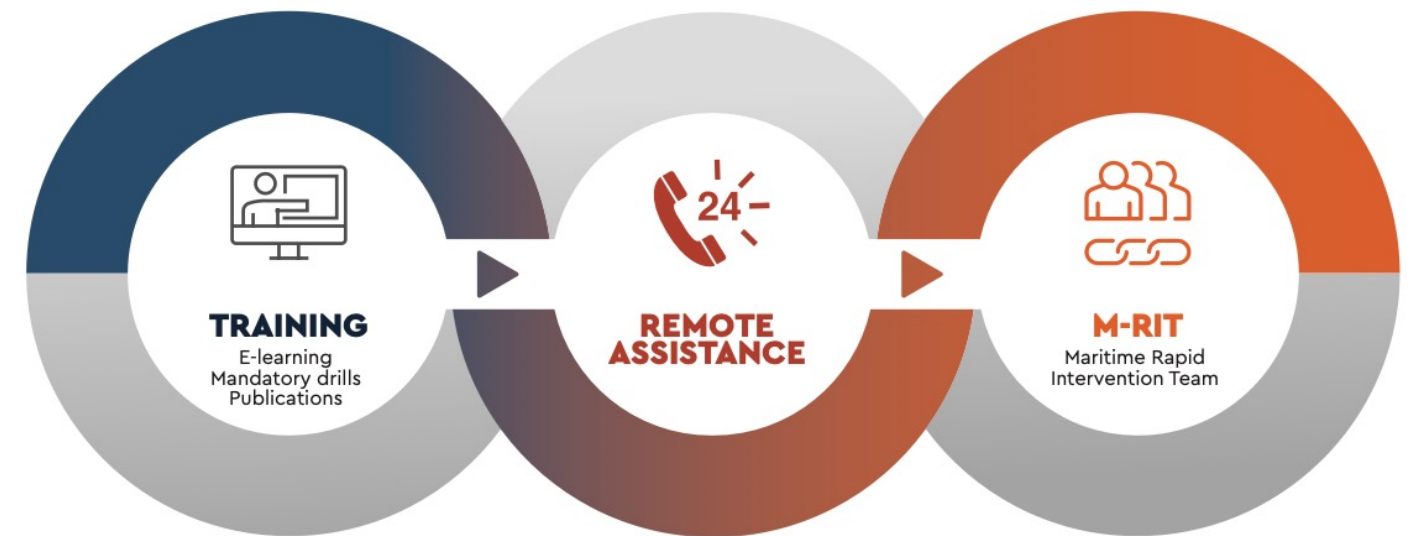
Flexible, approachable and cost-effective training and assessment to enhance safety, efficiency and readiness in the maritime industry.





# Modern firefighting training package

- Customer and vessel specific training
- Online training
- On board training
- Simulator based training (connected bridges)
- Mandatory drills
- 24/7 support
- Sharing publications
- Rapid intervention



## Course to safety

Pre-entry

1

Analyse target  
needs

2

Development  
content

3

Implementation

4

Evaluation

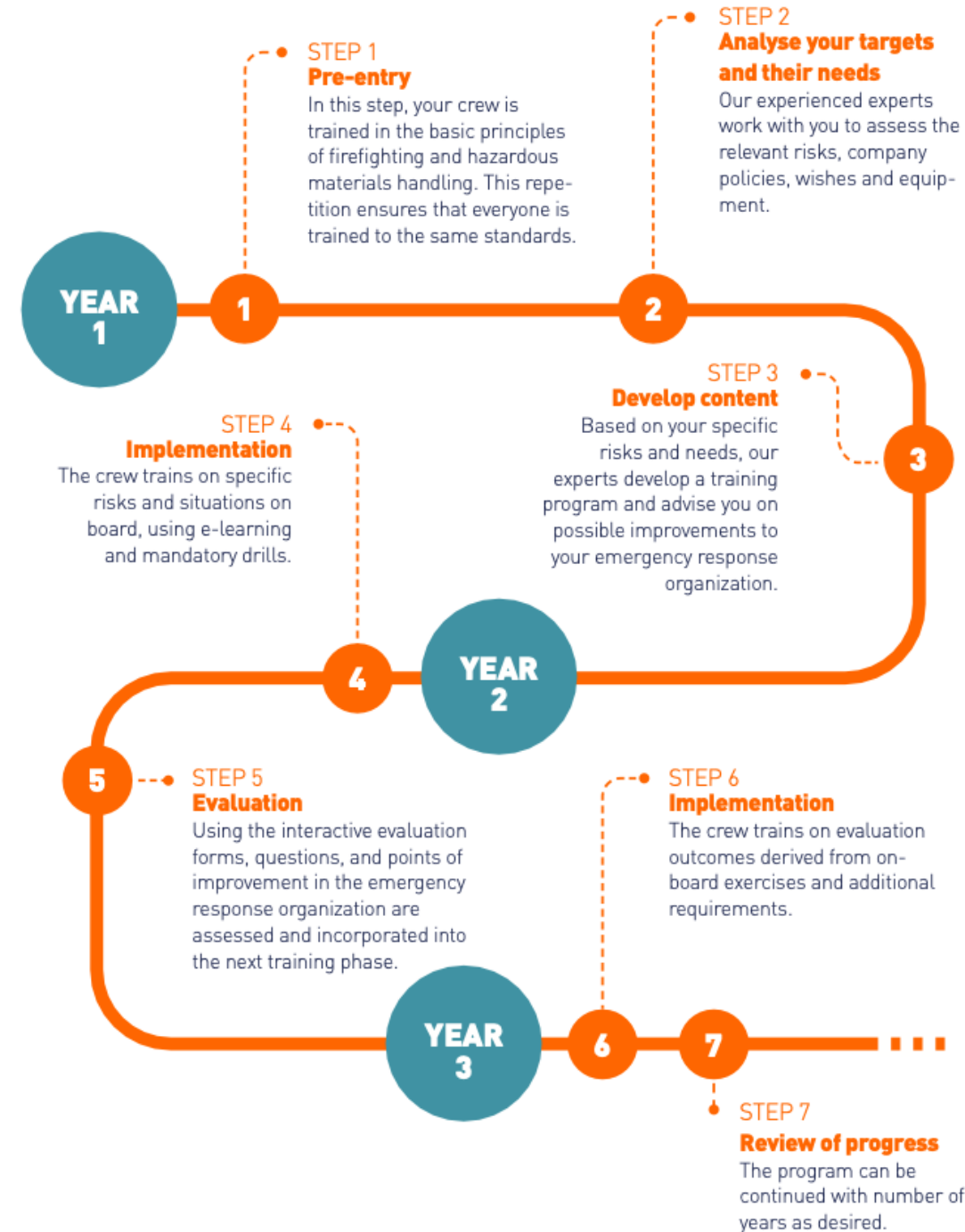
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Implementation

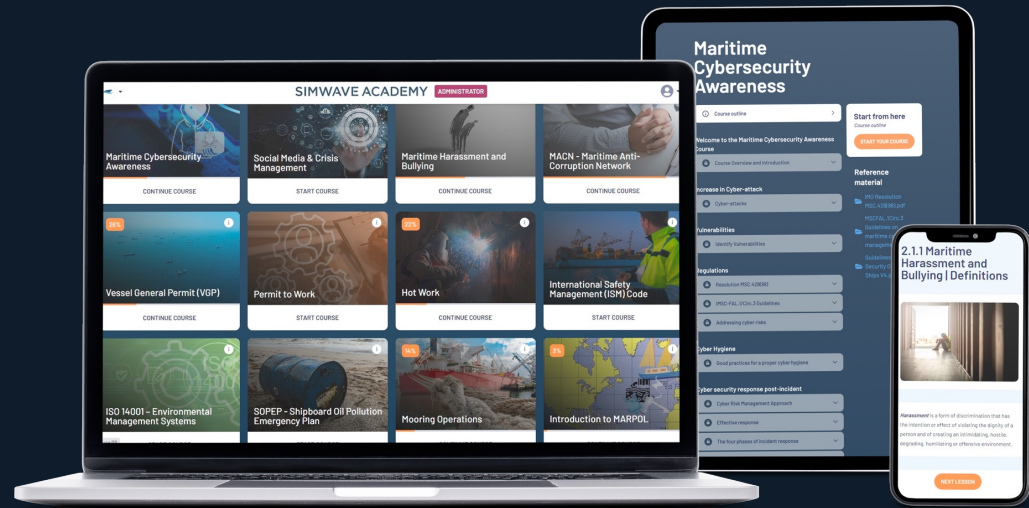
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Reevaluation

7







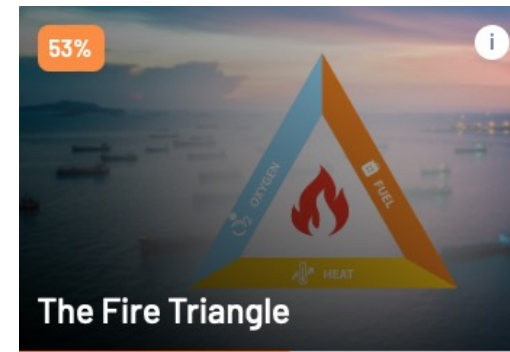
# Online

- Online assessments
- Pre- entry level training for all crew
- Tailored Basic and Advanced courses
- Refreshers
- Publications

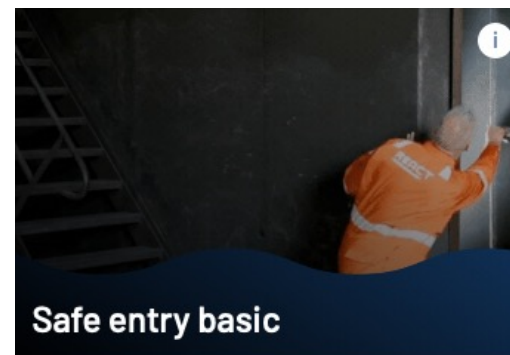
## Basic



CONTINUE COURSE



CONTINUE COURSE

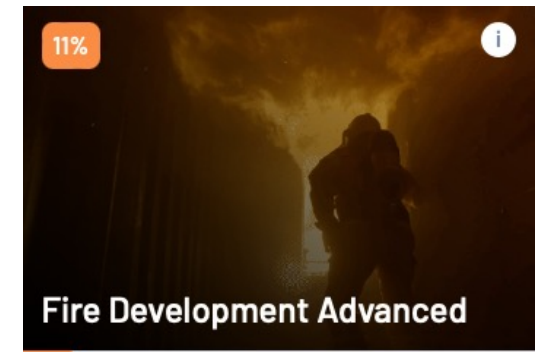


ENROL TO COURSE

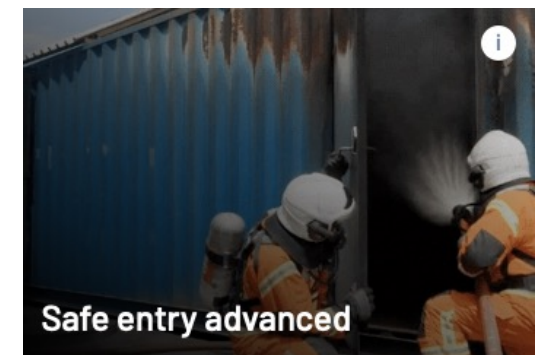
## Advanced



CONTINUE COURSE



CONTINUE COURSE



ENROL TO COURSE





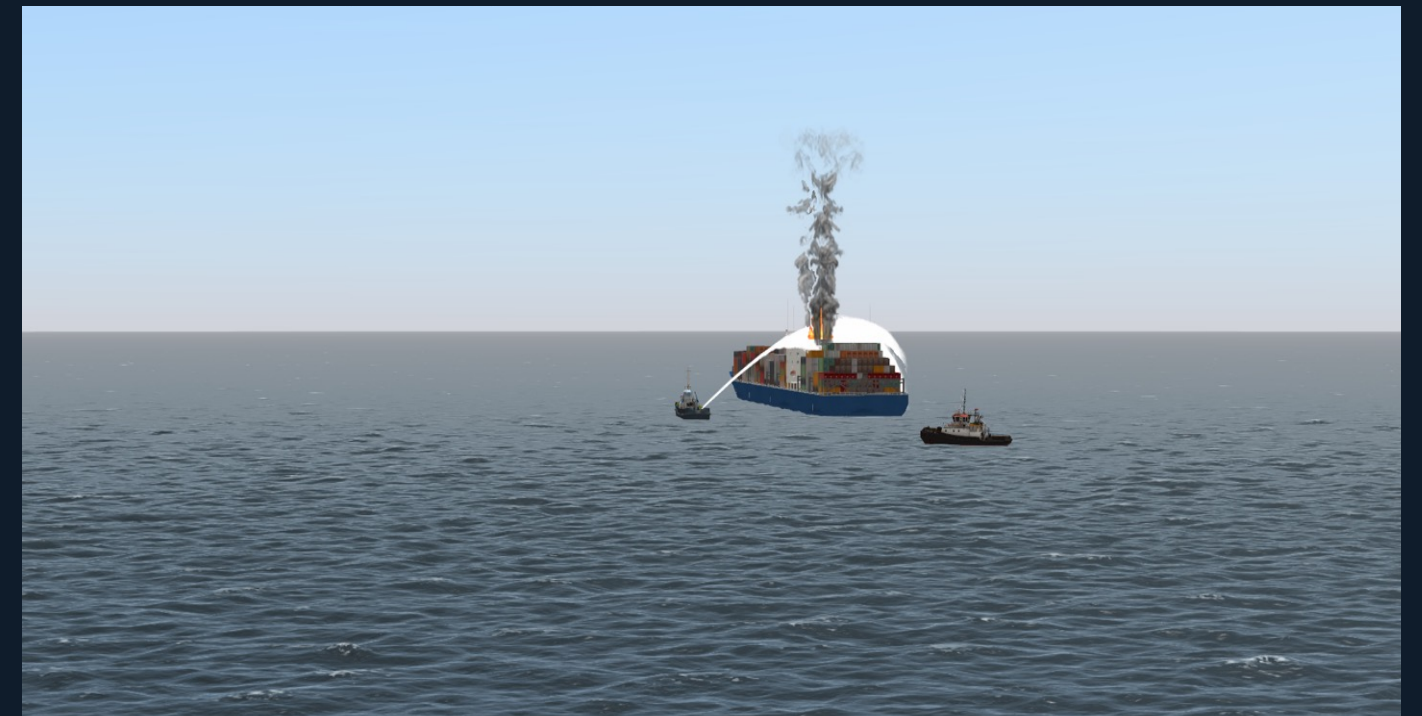
# On board training

- Train groups during voyage/on board
- Basic skills and Drills
- Use of digital fire panels
- Artificial smoke
- Laser-guided nozzles
- Evaluation



# Simulator based training

- Connected Bridges
- Fire scenarios - interpretation
- Wind conditions and direction
- Smoke reading
- Communication - Soft skills
- Situational awareness
- Cooling techniques
- Stop lines
- Efficient boundary cooling





# Building future proof competencies

Online



On board



Simulations







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