

An aerial photograph of a busy port. A large red container ship is docked at a pier, being loaded with colorful shipping containers by several green gantry cranes. The ship is surrounded by water, and several tugboats are visible nearby. The sky is clear, and the water reflects the light.

APEM Group

Ports & Harbours

Where Maritime Expertise Meets
Environmental Integrity

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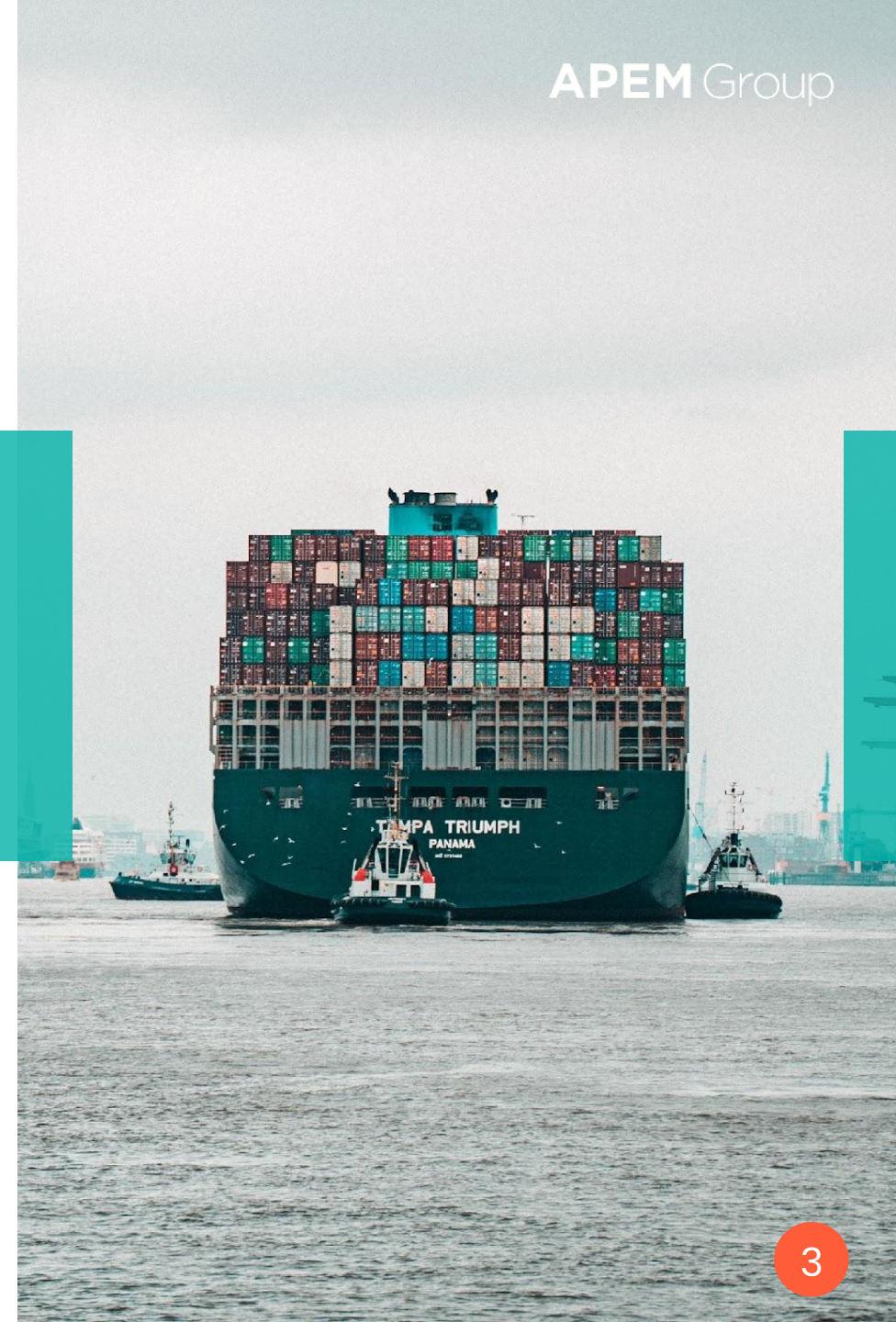
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Sustainability
& environmental
impact

About Us

APEM Group is a trusted partner in delivering safe, sustainable, and efficient maritime infrastructure. We provide world-class environmental consultancy, advanced data science, and integrated lifecycle support to ports and harbours projects worldwide.

From Navigational Risk Assessments (NRAs) to ecological surveys and stakeholder engagement, our in-house experts help clients secure consents, reduce risk, and ensure compliance. With cutting-edge tools and a deep understanding of marine environments, we guide projects from concept to operation, supporting the future of global trade, coastal resilience, port development / design and offshore energy.

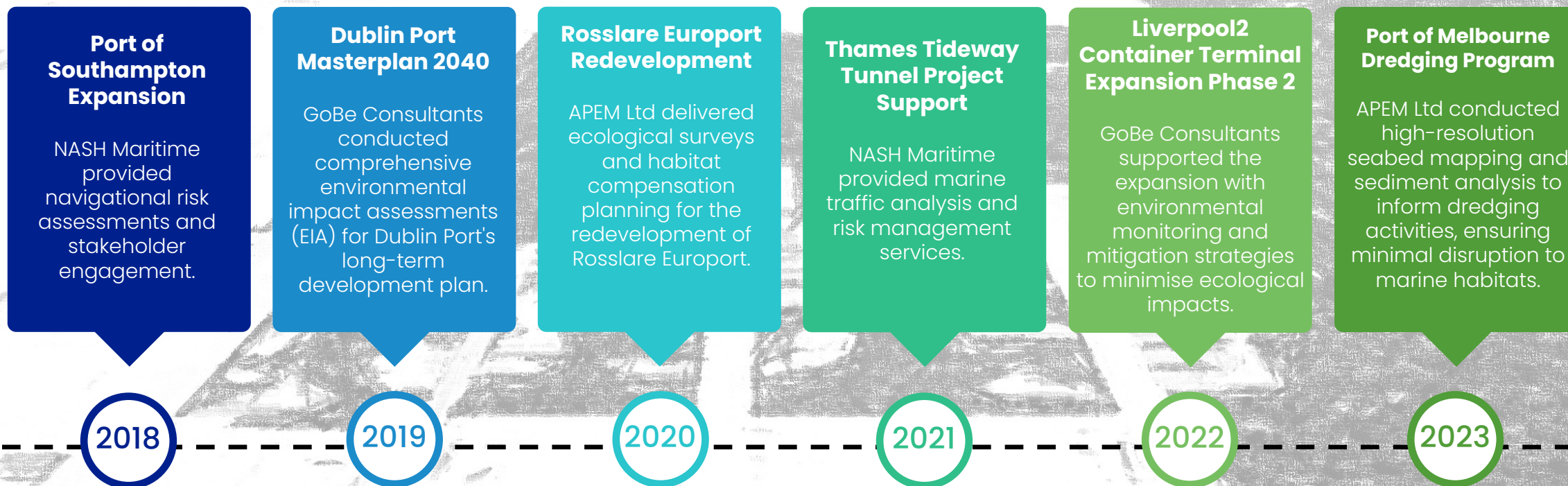


APEM Group



Our role in Ports & Harbours development

APEM Group has played a pivotal role in shaping ports and harbours projects across the globe, delivering expert environmental, shipping and navigation, and ecological support at every stage of development.





100+

**Years combined
maritime experience**

50+

**Projects across UK, Ireland,
Australia, and North America**

9

**Major ports supported with
Navigation Risk Assessments**

20+

**EIAs completed for port and
harbour developments**

Quality Focused

ISO, ISEP, NMBAQC

Expertise, Innovation, and Collaboration



Shipping and Navigation Expertise

Trusted consultancy for ports and harbours worldwide.



Data-Led Delivery

Advanced data science and ecology for smarter decisions.



Risk Management

Tools and insight to reduce navigational and environmental risk.



Collaborative Approach

Working closely with clients, regulators, and stakeholders.



Solving Challenges

Supporting wet storage, compliance, and sustainable growth.



03

**Ports and
Harbours
Development
Support**



Ports and Harbours Development Support



01

Site Feasibility & Selection

- Feasibility studies for port siting, expansion, and redevelopment
- Navigational risk screening and shipping density analysis
- GIS-based constraint mapping and opportunity identification
- Early stakeholder engagement to identify potential concerns
- Integration of ecological, hydrodynamic, and operational data

02

Environmental Surveys

- Marine, freshwater and terrestrial ecological baseline surveys (benthic, fish, birds, mammals, INNS)
- High-resolution aerial and LiDAR surveys for coastal and intertidal zones
- Sediment sampling and water quality assessments
- Habitat mapping and biodiversity monitoring
- Vessel traffic and shipping behaviour data collection



03

Environmental Impact Assessment

- Full EIA coordination and management for port and harbour developments
- Cumulative impact assessments
- Habitat compensation and Biodiversity Net Gain planning
- Navigational Risk Assessments (NRA) and domain modelling
- Stakeholder consultation and public engagement support
- Regulatory liaison and documentation for consent applications

04

Securing Approval

- Preparation of consent applications and supporting documentation
- Expert witness services and representation at hearings
- Development of mitigation strategies and monitoring plans
- Engagement with statutory consultees and regulators
- Support for wet storage and offshore logistics consenting



05

Construction & Monitoring

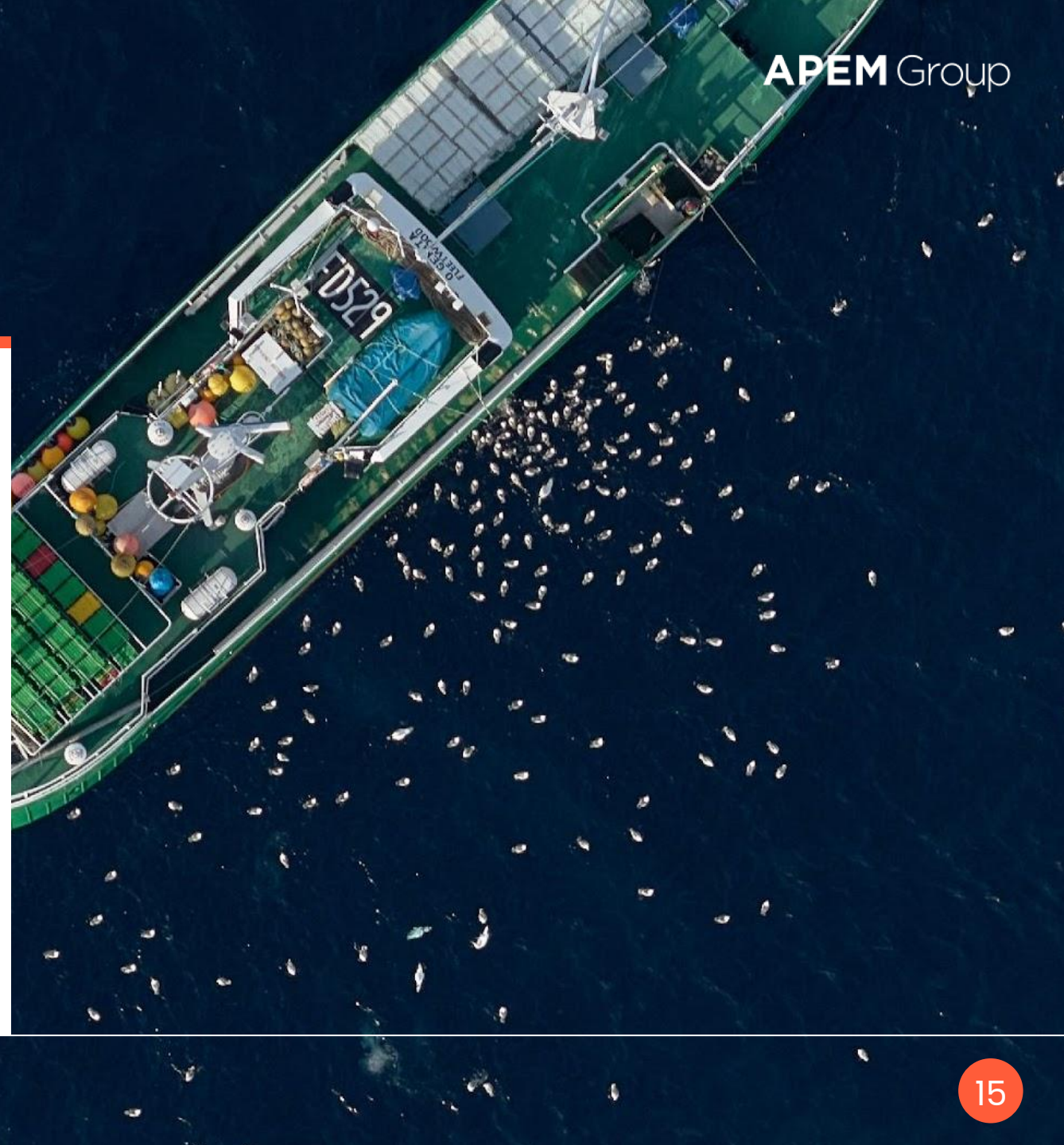
- Environmental Clerk of Works (ECoW) and compliance monitoring
- Real-time environmental data collection and reporting
- Marine mammal observer deployment
- Navigational safety monitoring and risk mitigation
- Adaptive management of construction impacts
- Biosecurity planning



06

Operational Support & Maintenance

- Ongoing ecological and compliance monitoring
- Periodic review of navigational risk and traffic patterns
- Support for maintenance dredging and sediment management
- Stakeholder engagement and reporting for operational transparency
- Long-term sustainability planning and environmental audits
- Biosecurity planning



04

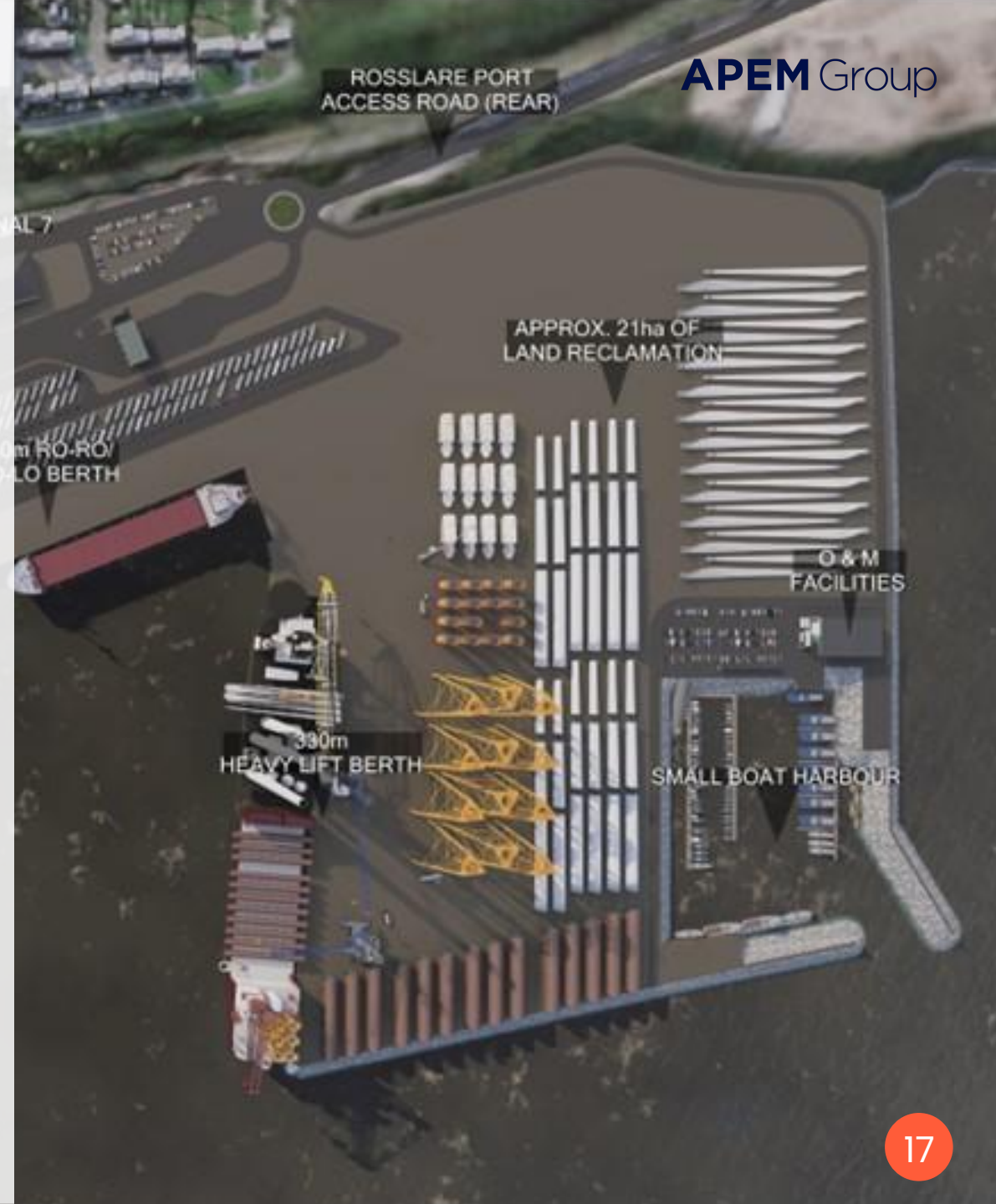
Projects & Innovation

Project Spotlight:

Rosslare Europort Redevelopment

Client: Rosslare Europort / Irish Government

- Delivered ecological surveys and habitat compensation planning
- Conducted Navigation Risk Assessment for offshore renewable hub
- Supported safe wet storage and vessel access
- Enabled compliance with marine conservation regulations
- **Outcome:** Secured consent for a nationally significant redevelopment supporting Ireland's offshore wind ambitions.



Project Spotlight:

Thames Tideway Tunnel –
Marine Interface Support

Client: Tideway

- Provided marine traffic analysis and navigation risk assessments
- Led stakeholder engagement with port authorities and regulators
- Supported safe marine operations in one of the UK's busiest waterways
- Delivered environmental and navigational compliance
- **Outcome:** Enabled safe, efficient delivery of critical infrastructure in a complex marine environment.



Project Spotlight:

DP World London Gateway –
Berth 4 Site Investigations

Client: DP World London Gateway

- Delivered Navigation Risk Assessment for borehole drilling
- Assessed marine safety risks and vessel traffic impacts
- Consulted with Port of London Authority and stakeholders
- Supported River Works Licence application
- **Outcome:** Enhanced navigational safety leading to consented ground investigations for a major berth.



Innovation Driving Maritime Sustainability

APEM Group invests in cutting-edge tools and techniques to enhance safety, sustainability, and efficiency in ports and harbours.



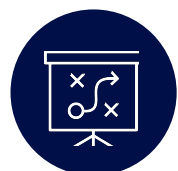
LiDAR & Aerial Surveys

High-resolution mapping for port infrastructure, intertidal zones, and coastal defenses.



AI-Powered Species Detection

WILDetect and machine learning to monitor marine biodiversity near ports.



Ecological Impact Modelling

Quantifying and mitigating effects of port operations on sensitive habitats.



Autonomous Monitoring

Real-time environmental data collection.



Regulatory Intelligence

Adapting to evolving maritime legislation and supporting compliance.

06

Sustainability & Environmental Impact



Commitment to Sustainability



Smart Technology

Using LiDAR and autonomous systems to enhance data quality and reduce survey footprint.



Collaborative Engagement

Partnering with regulators, port authorities, and communities to align on sustainable outcomes.



Ecological Safeguards

Delivering habitat compensation plans and noise mitigation to protect sensitive marine environments.



Global Reach, Local Delivery

Combining international expertise with regional knowledge across the UK, Ireland, Australia, and North America.



Integrated Environmental Services

Providing end-to-end marine ecology, EIA, and compliance support for port developments.



APEM Group

Thank you

Please get in touch if you have any questions.

[apemgroup.com](https://www.apemgroup.com)