PRINCIPAL SPONSOR

The Business of Decommissioning in Ports

BOB BUSKIE

CHIEF EXECUTIVE

PORT OF CROMARTY FIRTH

The Business of Decommissioning in Ports

Bob Buskie, Chief Executive

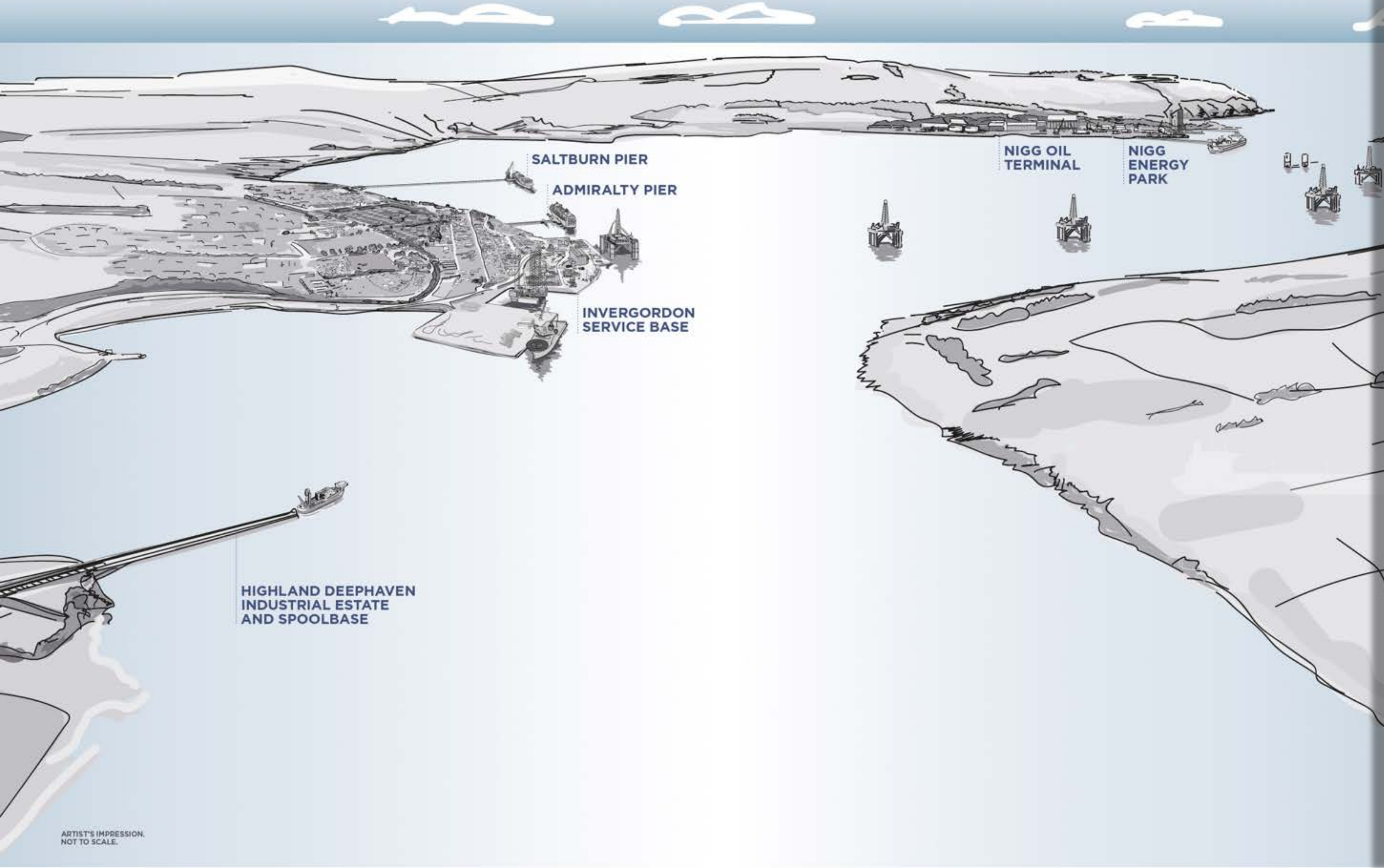
May 24, 2017

PORT OF CROMARTY FIRTH

Building a Successful Decommissioning Port

- Port of Cromarty Firth: Who We Are
- Location, Location, Location
- The Required Infrastructure
- Leading HS&E Practices & Compliance with the Relevant Regulations
- Revenue Streams
- World-renowned Supply Chain & Logistics
- Questions to ask when Selecting a Port for your Decommissioning Project

PORT OF CROMARTY FIRTH



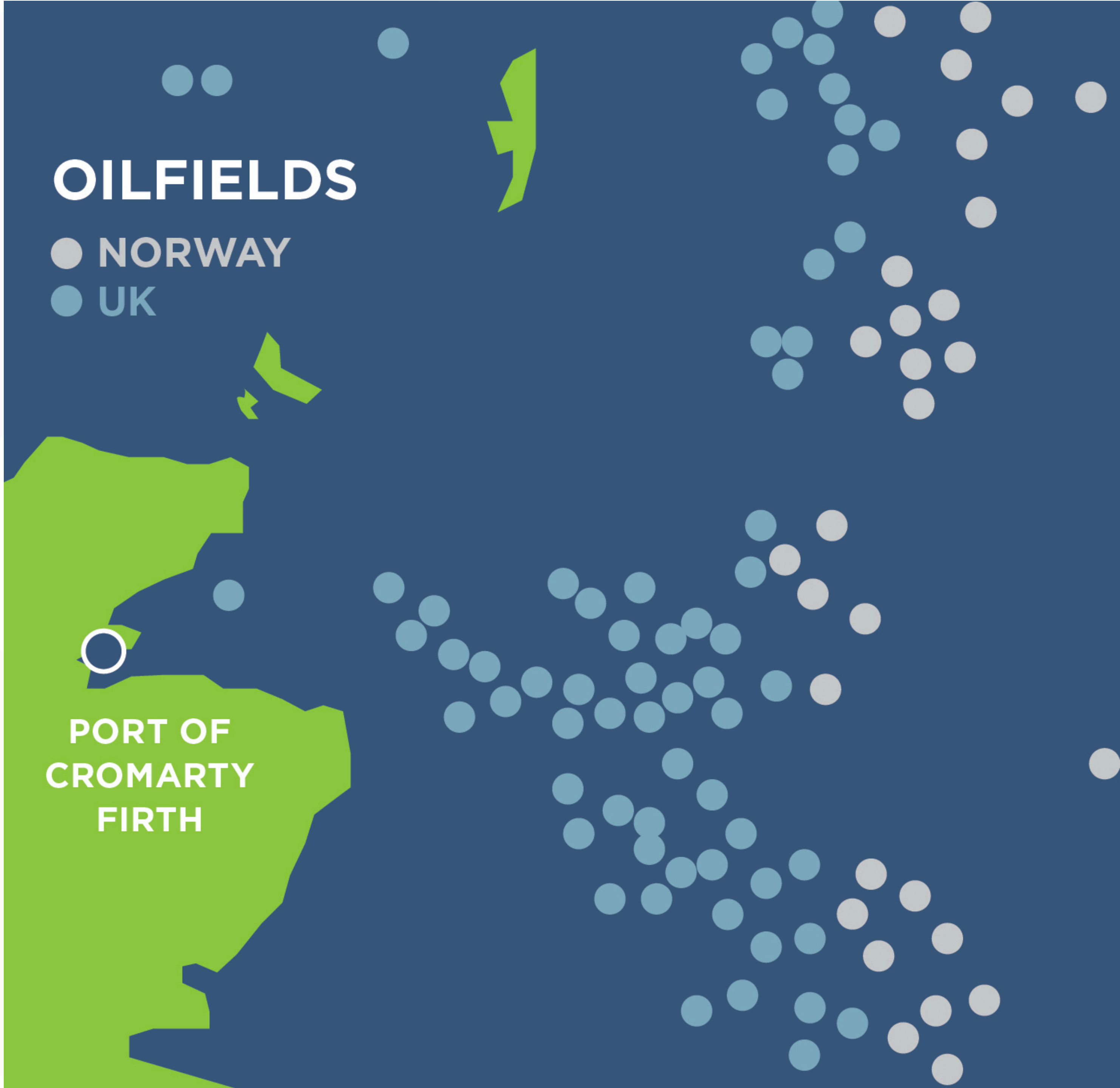
Port of Cromarty Firth (PoCF)

WE ARE:

- The leading location in Europe for Oil & Gas Inspection, Repair and Maintenance (IRM) projects
- A Trust Port: Reinvesting 100% of profits for the benefit of stakeholders
- Responsible for safe navigation and environmentally safeguarding 36 nautical miles^2 of water
- Commercially driven
- Contributing to Highland economic value generation of ~£275m/year across all the sites in the Firth

Location, Location, Location

- **Geography:** High cost of transport makes this the first consideration for customers and limits the markets Ports can target.
- **Access Constraints:** Tides, weather, water depth, size of the access channel, bridges... Dictate the Max. size of vessels, limit availability and/or add cost



The Right Infrastructure for Decommissioning

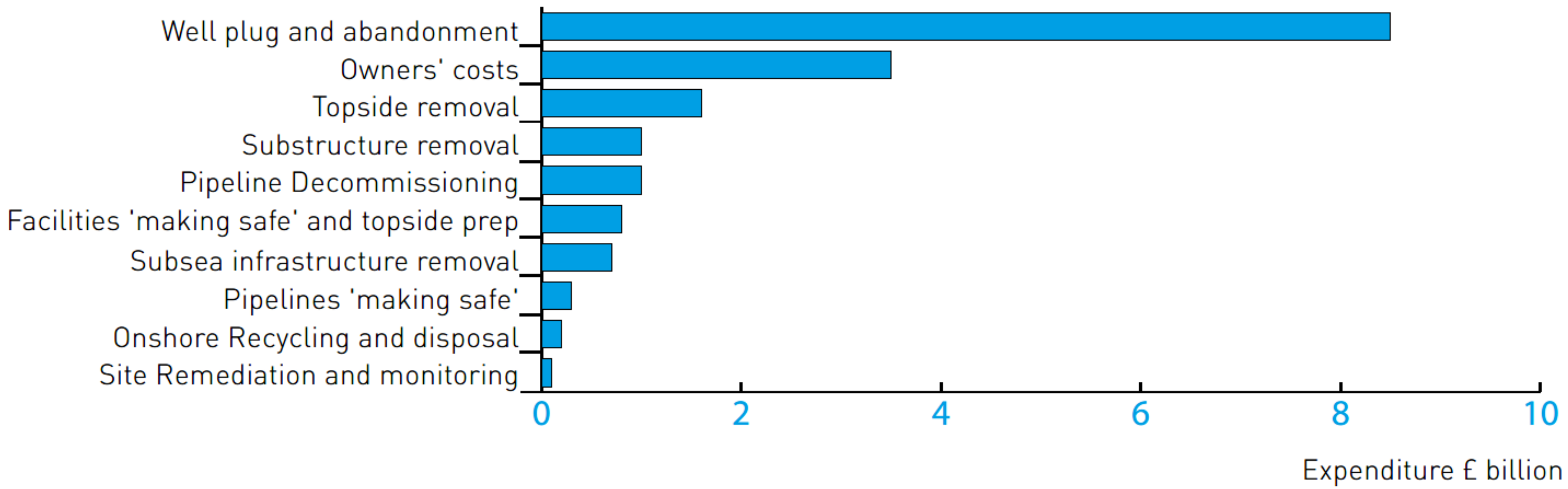
- Guaranteed access for quick vessel turn arounds:
  - For example, PoCF offers choice of 3 quays dedicated to decom. capable of taking vessels up to 300m
- Deepwater berths
  - For example, PoCF offers depths of 12-14m
- Large laydown areas:
  - For example, PoCF: Laydown areas totalling 80,000sqm
- Well established on site supply chain with proven track record in industry:
  - Decontamination
  - Demolition and recycling
  - Waste management
  - IRM
- All the necessary lifting capabilities
- Multi-user port, open for all contractors (no exclusive alliance)

How Do Ports Protect People and the Environment?

- **HS&E**
  - Pollution Prevention Control (PPC) Part A Permit
  - Radioactive Substances Act (RSA)
  - Port Marine Safety Code
  - Approved Oil Spill Contingency Plan
  - ISO 14001
- **Quality Management**: ISO 9001 (2015) & FPAL
- **International Ship and Port Facility Security Code (ISPS)**
- **Waste Management Plans**
  - WAMITAB Certified waste experts

PORT OF CROMARTY FIRTH

FIGURE 2: DECOMMISSIONING SPEND BY ACTIVITY 2016-2025



Source: Adapted from Oil & Gas UK (2016)

The Financial Reality of **Decommissioning** For Ports

- Estimated total decom expenditure UKCS 2015-2024 => £17.6bn
- Onshore recycling & disposal => £211m (1.2%)
- If main ports all received a fair share => £27m each
- Challenging for ports to invest in new decom infrastructure

Access to Supply Chain & Logistics

- **Experience and Competency:** Approved contractors, audits and full traceability from asset receipt to load out.
- **Highest standards of recycling:** Aim for 98% re-use, recovery or recycle.
- **Stakeholder engagement:** Established communication. Decommissioning opportunities welcomed. Community used to seeing large structures.
- **Open port vs single supplier:** Choice and cost competition. Audit and compliance responsibility
- **Security of long term forecasts:** New port infrastructure takes years and costs millions. Such investments require solid future business.
- **Contractual arrangements:** EPD or Heavy Lift Contractor as lead? Onshore contractor or ports as project managers? Ports may need to manage different approaches.

Selecting a Port – **Questions Worth Asking**

- **Location and turnaround times:** Distance from field, impact of tides and weather on schedule and cost
- **Permits and licences:** Are they in place? Where can waste be handled? Max. waste limitations
- **Water depth:** Alternative use of barge? Cost may be nil vs. transit cost
- **Quay length**: Length vs. achievable capability with additional mooring systems
- **Storage space:** On site vs. off site, transportation limitations, waste segregation to maximise re-cycling
- **Heavy lift solutions:** SPMTs, skidding etc.
- **Lifting plant:** Readily available vs. ability to bring in as needed
- **Supply chain:** perhaps key in evaluation?!
- **Experience and track record:** Track record in decom vs. O&G IRM experience. Experienced supply chain
- **Solution design:** Early discussion with the port may contribute to cost reduction…

Blunt metrics do not tell the whole story.

It is worth gaining insights from ports.

PORT OF
CROMARTY
FIRTH

Experience of **Decommissioning** in the Port