

# Fragile lifelines

by Iain Grainger, Chief Executive, International Marine Contractors Association (IMCA)

**Few people give much thought to the cables and pipelines that run unseen across the seabed. Yet in the Baltic Sea, these silent arteries are every bit as strategic as ports, airports, and railways. They carry the power that drives industry and lights homes, as well as the data that underpins everything from mobile banking to international trade.**

**G**lobally, subsea cables carry 99% of international data traffic and support some \$50 trillion in annual financial transactions. In the Baltic, they also serve as conduits for cross-border power, linking the grids of neighbouring nations and carrying the renewable electricity essential to Europe's energy transition.

However, recent events have exposed just how fragile these networks are. Their protection can no longer be treated as a technical afterthought; it must be elevated to the same level as defending a nation's borders or safeguarding its critical military assets.

## Vulnerabilities – exposed

Accidents remain the leading cause of cable failures. Anchors dropped or dragged, fishing gear snagged, and heavy equipment mislaid across buried assets can each sever vital connections. Every day maritime activity can, when compounded by tense geopolitics, become a trigger for wider strategic concern.

In October 2023, the Balticconnector gas pipeline and several data cables were damaged when a Hong Kong-flagged vessel's anchor was dragged for kilometres along the seabed. Repairs cost tens of millions of euros, causing disruptions to both power flows and internet connectivity.

A year later, in November 2024, Finnish coastguards seized a tanker carrying Russian gasoline after it allegedly cut a subsea power line. That same month, two more internet cables were severed, one linking Sweden to Lithuania, another connecting Finland and Germany.

## Sabotage suspicions and the geopolitical backdrop

The Baltic is not just an energy and communications hub. It is also a region of growing strategic friction, bordered by NATO

states and hosting Russia's Baltic Fleet headquarters in Kaliningrad.

The explosions that destroyed the Nord Stream gas pipelines in 2022 showed how subsea infrastructure can be deliberately targeted. Since then, suspicion has grown that cables and pipelines may also be used as instruments of political intimidation or as a means to probe weaknesses.

Proving intent is difficult. Mechanical failure, human error, or severe weather may be responsible for individual events. But the pattern of repeated disruptions has led governments, militaries, and industry alike to recognise that subsea resilience is now a matter of strategic security.

## The Baltic trial that raised global alarms

In mid-2025, the trial in Helsinki of the *Eagle S* tanker's captain and officers, accused of serious criminal damage and disruption to telecom infrastructure in late 2024, highlighted this risk on the world stage. Prosecutors alleged that the Cook Islands-flagged vessel dragged its 11-tonne anchor for nearly 90 kilometres, severing the Estlink 2 power interconnector and four telecommunications cables between Finland and Estonia. The result was more than €70 million in immediate damages and days of disruption. NATO raised readiness levels, underscoring how quickly an incident, whether intentional or not, can escalate into a wider crisis. This trial served as a stark reminder that subsea lifelines are both essential and exposed.

What is happening in the Baltic mirrors a wider challenge. In early 2025, multiple cuts to subsea cables in the Red Sea resulted in internet outages spanning from Yemen and the Gulf to India and Pakistan. Disruptions rippled through markets and governments alike, underlining the global interdependence of seabed infrastructure.

Subsea networks are now recognised as critical national infrastructure. When they fail, the consequences are immediate: lost connectivity, financial shocks, and interrupted energy flows.

## Strengthening resilience through partnership & preparedness

Here at IMCA, working closely with the European Subsea Cables Association (ESCA), we have consistently urged governments and regulators to take a more strategic approach to preparedness and resilience. Our joint recommendations emphasise the importance of public-private cooperation and sustained investment across the cable repair ecosystem.

We believe action should centre on: targeted investment in the telecommunications repair ecosystem serving European and adjacent waters (including vessels, equipment, and critical supporting capabilities); collaboration with subsea power cable owners to identify sector-specific repair solutions; harmonised regulatory processes across jurisdictions to minimise delays; strategic stockpiling of essential spare parts and equipment to enable rapid response; and support for workforce development (among others, funding to upskill personnel and promote high-skill offshore careers).

Engagement between governments and industry through existing EU platforms, including the Cable Security Toolbox, offers a valuable route to build alignment and readiness before the next disruption occurs.

## Skills and workforce: maintaining & growing capability

Subsea cable repair depends on a highly specialised workforce, including cable engineers, jointers, and vessel crews. While current capability remains strong, the sector faces an ageing workforce profile, and attracting new entrants has become a clear priority. Without



The damaged Balticconnector; photo: Wikimedia Commons

sustained efforts to recruit, train, and retain new talent, workforce shortages could become a bottleneck for repair response.

Here at IMCA, together with ESCA, we recommend: national programmes to train and retain specialist deck officers, marine engineers, and cable jointers; integration of subsea repair roles into national resilience strategies (including cross-training within naval or emergency response frameworks); adequate resourcing of regulators and licensing bodies, ensuring they have the capacity and knowledge to manage permit applications swiftly when urgent repairs are required.

This is not a challenge of capability but of planning, making sure that expertise built over decades is passed on to the next generation.

#### **Policy reform: enabling faster, smarter repair**

Regulatory frameworks can either accelerate or obstruct cable repair. Policies designed for other sectors (including but not limited to shipping, environmental protection, or fisheries) can unintentionally create obstacles to rapid response.

Here at IMCA, we believe that effective reform must: adopt fast-track permitting or exemptions across EU Member States, particularly for telecom cable repairs and maintenance; foster international coordination in policy and regulation, recognising that the cable repair fleet and its operations are global in nature; promote cross-border

cooperation that allows regulators and industry to mobilise personnel and vessels rapidly, without administrative delay.

Well-designed exemptions or pre-approvals for emergency repair can significantly reduce recovery times and mitigate the economic and security impacts of cable failures.

#### **What resilience should look like**

For the Baltic and Europe more broadly, building resilience means: stronger physical protection – deeper burial of cables, protective rock placement, and improved design standards; smarter monitoring – fibre-optic sensing technologies to detect interference or vibration in real-time; shared maintenance capacity – regional pooling of repair resources for power cables, modelled on telecom agreements; closer civil-military coordination – NATO surveillance integrated with industry readiness for faster detection and repair; policy alignment – harmonised regulations across the EU and Baltic states to reduce delays and provide certainty for operators.

#### **Not (simply) an engineering challenge**

As Chief Executive of IMCA, I see daily the capability and commitment of our member companies, who are building and maintaining the offshore energy and communications systems that societies now depend on. But capability alone is not enough. It must be matched with strategic planning, investment, and regulatory support.

The Baltic incidents are not isolated warnings; they are proof that governments and industry must act now. These lifelines may lie hidden beneath the sea; however, their importance is absolute, and they must be defended and maintained with the same urgency and resources devoted to airspace, borders, and defence assets.

Protecting and repairing seabed infrastructure is not simply an engineering challenge. It is vital for the energy transition, and it is a matter of economic security, national defence, and global stability. The Baltic, in this sense, is not simply a regional story. It is a test case for how the world responds to the vulnerabilities hidden beneath the sea. ■



The International Marine Contractors Association (IMCA) is the global business association for construction and engineering companies working in offshore energy – both wind and oil & gas. Our membership of 700 companies comprises contractors, energy companies, and suppliers in over 65 countries. We have a 50-year history of developing and publishing best-practice technical and operational documents to improve the safety, efficiency, and performance of our industry. Sail to [imca-int.com](https://www.imca-int.com) to learn more.