LR & LR Foundation

Energy | Vessels | Maritime trade | People | Ports

Global Maritime Trends 2026 Barometer

Assessing the progress of the maritime energy and digital transitions

June 2026



About our barometer

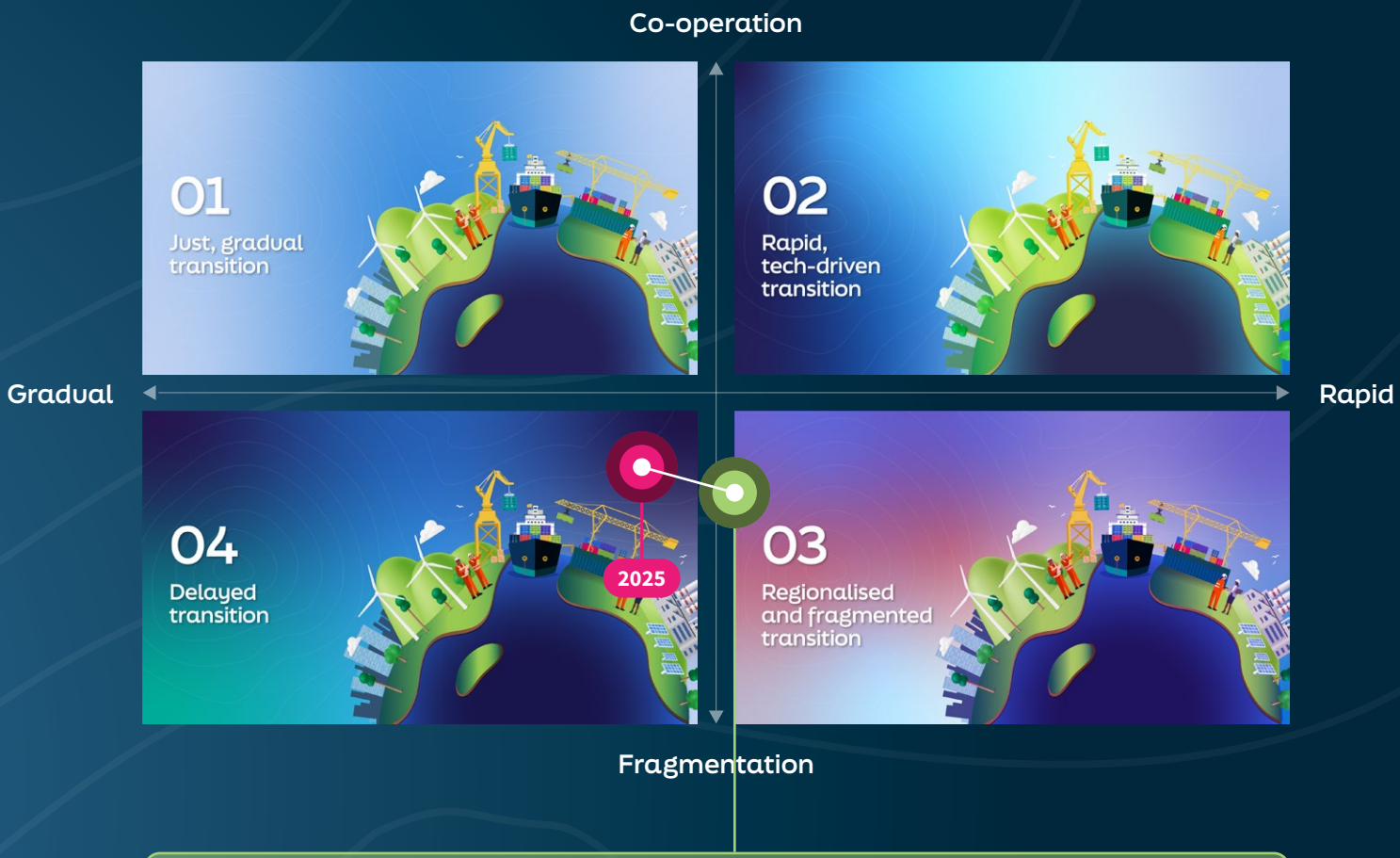
The annual pulse of the maritime industry's transformation. Tracking five key areas — maritime trade, energy, vessels, ports, and people — it provides a data-driven view of how the industry is navigating the energy and digital transitions, while highlighting emerging trends by benchmarking progress towards four future scenarios.

How do we calculate the barometer?

Our barometer model incorporates key metrics and measurable indicators drawn from trusted, peer-reviewed published sources and market data models. Each indicator is scored on a dynamic scale, showcasing its progress towards targets in the next five years. For the Energy Transition Barometer, each component — energy, maritime trade, vessels, ports and people — is assessed against technology uptake and global cooperation, using both quantitative data and expert-informed qualitative insights where needed. For the Digital Transition Barometer, the model integrates insights from LR's Digital Maturity Index and input from LR and external industry experts who helped define progress to industry initiatives.



Our 2026 snapshot



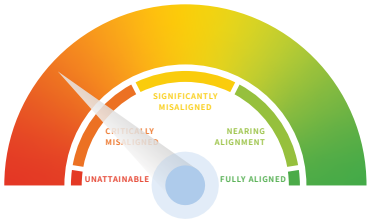
2026

We stand at a pivotal inflection point. Energy technology is advancing, but too slowly to meet net zero targets. We record and report more data, but without stronger global cooperation the energy and digital transitions risk becoming regionalised and fragmented. Aspirations must be translated into practical, globally standardised pathways.

2026 BAROMETER HIGHLIGHTS

The Energy transition

Energy



23%

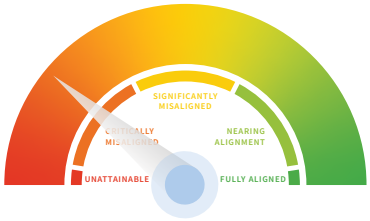
↓ 1% (vs 2025)

Technology development	**27%** ↓1%
Global cooperation	**20%** →0%

The 2026 Energy Pillar declined by one point to 23%, remaining 'Critically Off Track'. While renewable energy deployment has continued to expand and costs improved, these gains were outweighed by a 1.5% increase in fossil fuel demand and record greenhouse gas emissions.

Progress was further constrained by a widening ambition gap and increased global policy volatility, including the United States' withdrawal from the Paris Agreement and abandoning 2050 net-zero targets. This policy uncertainty and escalating costs slowed clean energy investment. Persistent fossil fuel subsidies continue to distort markets and anchor both the global economy and maritime sector to carbon-intensive systems.

Maritime trade



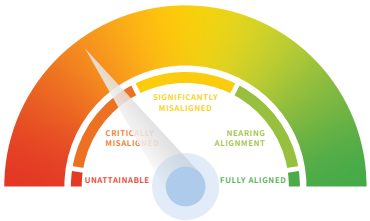
22%

↓ 8% (vs 2025)

Technology development	**13%** →0%
Global cooperation	**32%** ↓15%

The 2026 Maritime trade Pillar recorded the steepest year-on-year decline across all five of pillars of the Energy transition barometer, falling eight points to 22%. From a trade perspective, there was very little change year-on-year. Overall seaborne trade in fossil fuels remained relatively stable, with a slight decline in crude oil shipments offset by rising gas volumes. Low-carbon trade remained minimal, compounded by a significant pullback in large-scale hydrogen projects. The primary driver of the decline in this pillar was increasing geopolitical fragmentation and protectionism over the past 12–18 months, eroding multilateral cooperation. This has weakened stakeholder alignment, stalled collective momentum, delayed progress on the IMO's Net-Zero Framework, and constrained voluntary initiatives, such as green shipping corridors.

Vessels



30%

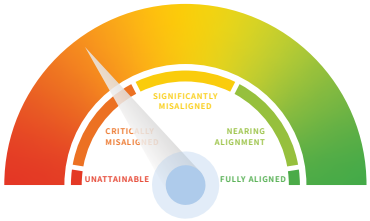
→ 0% (vs 2025)

Technology development	**39%** ↑2%
Global cooperation	**21%** ↓1%

The 2026 Vessels Pillar remained stable at 30%, with the past twelve months registering incremental improvements in technological maturity and the uptake of alternative fuels and emissions abatement solutions. These developments have been supported by improved access to ship finance, although this remains selectively available, primarily benefiting owners with stronger balance sheets and clearly defined decarbonisation pathways. Despite this, the global fleet approaches a critical inflection point. Without stronger international consensus and broader more equitable access to capital, the sector risks bifurcation, with a subset of owners with future-ready fleets advancing while smaller owners lag, increasing exposure to asset obsolescence without a coordinated policy framework.



Ports



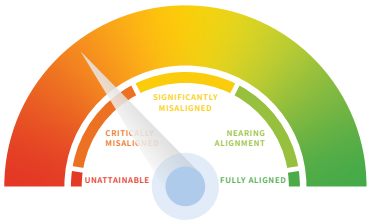
30%

↑1% (vs 2025)

Technology development	**25%** ↑5%
Global cooperation	**35%** ↓2%

The 2026 Ports Pillar increased marginally by one percentage point to 30%, driven by advances in port technologies and alternative fuel infrastructure. LNG bunkering expanded to more than 220 ports, with Singapore and Rotterdam selling record volumes, while onshore power facilities reached approximately 280 ports globally. However, the gap between ambition and execution has continued to widen over the past year. Despite continued technological progress, implementation remains slow and uneven. Progress has been concentrated in regions such as the EU, Northeast Asia, and in leading hubs like Singapore. If this trend continues, this imbalance risks limiting progress to advanced maritime centres, undermining a broader, equitable global transition.

People



29%

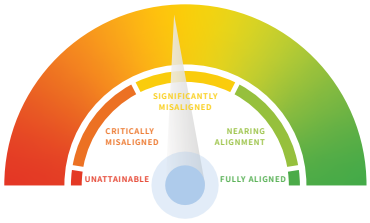
↑2% (vs 2025)

The 2026 People Pillar rose two percentage points to 29% but remains “Significantly Misaligned” with a just and equitable transition. There has been promising progress with IMO’s STCW review and new safety frameworks, but implementation remains fragmented. Advanced hubs roll-out green skills while other regions face systemic technology and funding barriers. Moreover, progress in diversity and labour rights remains muted. Despite shore-based improvements, seafaring roles face persistent representation gaps. Crew welfare is recognised but remains largely at owners’ discretion. Ultimately, resource disparities and slow execution mean the human element lags the rapid pace of technological change.

2026 BAROMETER HIGHLIGHTS

The Digital transition

Energy

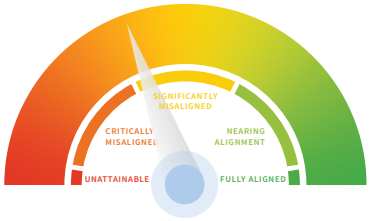


48%

→ 0% (vs 2025)

Progress under the Energy Pillar remained flat at 48% over the past year. Regulatory pressure drove the adoption of digital tools covering data collection and emissions reporting throughout 2025. While fragmented regulations and reporting could have been unified under an agreed IMO framework, progress here has stalled. Coupled to the US withdrawal from the Paris Agreement, this fragmentation is likely to continue, which will increase pressure on ship owners. Despite these diversions, the focus on fuel and costs supports business cases for fuel monitoring, focusing on data quality and company's digital and cyber maturity, reflected in our Digital Maturity Index feedback.

Maritime trade



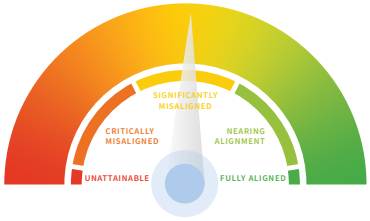
39%

↑ 2% (vs 2025)

The Maritime trade Pillar rose two points to 39% over the past year. While pilot projects continue, marine trade digital transformation remains slow, lagging behind terrestrial counterparts. The framework for the transformation of maritime trade digitalisation is developing with some impetus and the issues of the reluctance to sharing data and interoperability are being highlighted more vocally.

However, there is limited progress in the adoption of key digital tools, including Maritime Single Windows, digital noon reports and electronic bills of lading. Translating frameworks and ambition into widespread, practical implementation remains the central challenge.

Vessels



51%

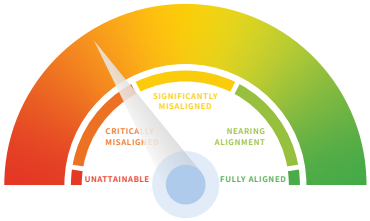
↑ 8% (vs 2025)

The Vessels Pillar saw a significant increase over the last year, rising eight points to 51%. Reliable, resilient, low latency, high speed connectivity is affordable and widely adopted amongst marine vessels and will soon become a minimum requirement as the pace of digitalisation increases. New vessels are now being built to meet the latest cyber security standards under UR E 26, making it easier to safely adopt smart technologies and adapt to regulatory or market changes.

Overall, the fleet is moving in the right direction, but older vessels are slow to adapt. Regulatory and business pressures will accelerate change, even amongst the legacy fleet, who will have to adopt new requirements.



Ports



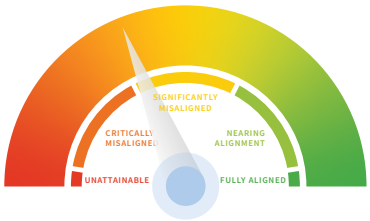
32%

↓ 1% (vs 2025)

The Ports Pillar score declined by a single point to 32% over the past year. Pilot projects continue at major ports, creating digital corridors and adopting smart port technologies, but no real progress has been made in scaling solutions. However, it is more difficult for smaller ports to develop digital solutions where a reliance on fragmented legacy solutions impedes collaboration and data sharing between ports, shipping, etc., reducing overall efficiency.

The savings and environmental benefits from smart port technologies are significant but require a holistic and collaborative approach for all parties to accept the efficiencies available.

People



38%

↑ 6% (vs 2025)

The People Pillar score has increased by six points to 38% over the past year. People are central to the success of digital transformation both onshore and at sea. Getting this right requires clear understanding across design, operations, communications, training and integration. Digital tools can strengthen collaboration between shore-based teams and seafarers. Improved connectivity also has a positive impact on crew welfare, giving better access to support and communication while at sea.

However, these human factors must be carefully managed. Poorly implemented technology can create confusion and resistance, undermining the very benefits digital transformation is there to deliver.

Key takeaways

Progress in the energy transition is real, but it is structurally uneven and insufficient. There has been incremental technological progress. However, deployment lags ambition, and progress is concentrated in a few regions and hubs.

Policy misalignment and geopolitical fragmentation are now the primary pain points. The biggest constraint is no longer technology, but its coordination and governance.

The human dimension of the transition remains significantly misaligned with equitable net-zero ambitions. Progress in safety, training and workforce development is still uneven and slow. Structural changes persist across fleets and geographies. Without a more coordinated and inclusive approach, the sector risks a fragmented, tiered workforce, undermining both safety and long-term sustainability.

Fuel Emission reporting will continue, whether in a unified or fragmented approach, and now is the time to develop a strategy to ensure data collection, quality and maturity.

A lack of standardisation previously stood as a barrier to digital transformation, but the IMO compendium and other initiatives will accelerate digital uptake. As these initiatives move towards maturity, the opportunities for digital efficiencies increase. The direction is becoming clearer and so now is the time to act.

The barrier for crew digital services is no longer held back by connectivity. It is good to see the improvements in crew welfare through digital technologies. It is now time to build on this foundation and raise standards and support for crew.

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