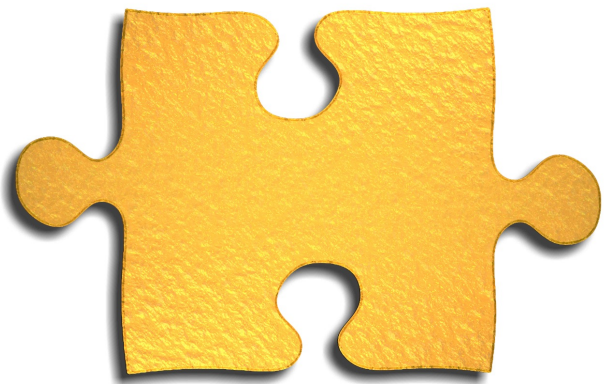


Subsea & DSV Market outlook to 2029



From Stone Cold to Red Hot



Strategic Offshore Research - NUI Bergen International Diving seminar – November 2023

Presentation Structure:

- SOR introduction
- Vessel demand review
- North Sea demand and utilisation review
- Supply - newbuilds and scrapping
- Market forecast
- Contractor review and key vessel points



Strategic Offshore Research – market intelligence

first-hand 
Subsea Newswire
First Class Commercial Intelligence
STRATEGIC OFFSHORE RESEARCH

August 8th, 2023
Editor: Ian McIntosh

» Subsea Contracting

1. **ROMANIA/GERMANY:** Saipem has OMV award on EPIC basis for Neptun Deep Gas project in Black Sea. Worksopce includes gas gathering platform in 100 msw plus subsea developments on Domino in 1,000 msw with two drill centres and Pelican in 100 msw with one drill centre, plus 160km 30-inch pipeline and fibre optic cable. Offshore work will be covered by Saipem 7000 for platform lift and newbuild JSD-6000 for pipelay and subsea construction. 2027 is scheduled first production with 2025 and 2026 offshore work. Saipem also confirms award for Castoro-10 to conduct 50km 48-inch inshore gas pipeline in German Baltic from Lubmin to Mukran. Barge has already mobilised. Line will early 2024 enter service. Two awards have total €1.8 billion value.

2. **NORTH SEA/WEST AFRICA/INTERNATIONAL:** DOF with Skandi Acergy has \$80 million to \$100 million award for fourth quarter starting subsea construction programme in West Africa. Duration is 326 days plus 75 days options covering pre-commissioning, SSIV umbilical, spoolpieces, risers, flying leads and subsea structures. Work is understood on BP Tortue development in Senegal/Mauritania and is further believed on subcontract from Saipem, who provides field FPSO, rather than via original McDermott arrangement. McDermott does have Amazon back on field's export line installation ahead of transfer to Gulf of Mexico for Shell Whale project. Skandi Acergy is in Peterhead having completed return North Sea transit after construction work in Israel.

3. **BRAZIL:** Petrobras reports to September 4 tender submission deadline extended for current PLSV/flexible flowline lay support vessels bid. Multiple vessels could be fixed for three to four years each with start dates in wide September 2024 to March 2026 window.

4. **ANGOLA:** TechnipFMC and Aker have Azure awards for flexible flowline and umbilical supply for Ndungu tie-back to 15/06 West Hub. TechnipFMC suggests \$75 million to \$250 million contract value range. Fourth quarter sees Aker deliver 25km umbilicals. Aker Contract value is in NKR 0.5 billion to NKR 1.5 billion range.

» Vessel Activity

5. **NORWAY/NETHERLANDS/NORTH SEA:** Golden Energy for \$94 million is buying VOS Sugar support vessel and four PX-121 design PSVs (VOS Pace, Paradise, Partner, and Passion) from Vroon. End September acquisition is due complete. VOS Sugar is working through end this month with options to end October on seasonal inspection in Dutch sector with Bluestream. Purchase will be financed through debt and new equity including Oaktree taking 49.99% Golden Energy interest via warrants with NKR 57.77 million total value. Oaktree will also extend three-month unsecured bridge loan with 12% per annum interest. Oaktree equity purchase and loan will cover deposit for Vroon boats and Oaktree is then offering five-year \$98.6 million sale and lease back for the five Vroon

first-hand 
Field Development Newswire
Key Offshore Construction Intelligence
STRATEGIC OFFSHORE RESEARCH

August 9th, 2023
Editor: Andrew Hamilton

» New Discoveries

1. **USA-GoM:** Talos reports Green Canyon oil find on Sunspear prospect. Well hit 79-metre pay across two targets and will tie-back to recently acquired Prince. Within 12 to 18 months is first oil.

» Emerging Plans

2. **NORWAY:** DNO has agreed new fast-track concept for 30 million boe Brasse discovery as two-well 13km tie-back to Okea Brage. Operator says plan sees "much reduced Brage topsides modifications, project is expected to materially extend Brage remaining life". Early next year is expected FID and 2026 first oil. Operator will transfer 3/17 operatorship to Okea "to maximise strategies with Brage and lower costs, plus 50% in Brasse available following partner exit.

3. **UK:** OPRED has requested further information on Ping Avalon project saying "uncertainties surrounding project make difficult to assess". Authority has raised 42 clarification points including how FPSO will be powered, emissions and field life. Plan is two wells to Excalibur FPSO exporting via tanker or new pipeline, either 5km to Britannia or 40km to Ettrick. Last year Ping revised Avalon timing and was targeting this quarter FID with drilling to immediately follow. First quarter 2025 was scheduled subsea construction for third quarter 2025 production.

» Firm Projects

4. **INDIA:** From mid-year to end October ONGC has further delayed first oil from KG-DWN-98/2 Cluster-2 project after believed anchor retrieval damaged umbilical and manifolds. Project was already behind schedule but further work is now required to reinstate equipment with McDermott expected to cover. Baker Hughes supplies subsea equipment.

» Early Prospects

5. **UK:** Longboat says OMV is drilling on Velocette in 6607/3 targeting "very significant" 177 million boe with 30% success probability on Utgard High east flank. Prospect is within tieback distance of Equinor Aasta Hansteen and partner notes "number of follow-on opportunities" with 200 million boe combined unrisks reserves "which would be significantly de-risked by success".

6. **USA-GoM:** Kosmos expects end first quarter 2024 production from Beacon Winterfell in Green Canyon. Operator estimates total field reserves of 200 million boe. This month begins 100 million boe phase 1A development drilling.

7. **BENIN:** Zenith has broken off PSC government talks for Benin Block 1. Operator cites "geopolitical developments in vicinity and significant long-term investment required to develop".

SOR - formed 2001

Key newswires on Subsea and Construction/Field Development markets

Ian McIntosh, since 1988, has been leading market reporter/analyst

Newswires are the foundation of everything the company does which is driven by constant market contact



FrontRunner newsletter and research/forecasts



DSV market in makeover mode

Market makeovers are never really driven by one thing. Often, they happen quickly and without really being noticed. The North Sea diving support vessel market, which knows plenty about wildly changing fortunes, is right in the later stages of one of those makeovers.

The thing is the North Sea DSV market is driven by the interaction of more than one factor. The drivers are not completely straight-forward and are heavily influenced by contractor positioning strategies and the appetite from international clients and projects for vessel time too.

A key factor is the interaction between the ships controlled by construction-focused contractors and the more jack-of-all-trades-like third-party vessels that are normally aligned to a second or third tier player, but not always.

TechnipFMC and Subsea 7 still control a significant part of the fleet. TechnipFMC becomes a reduced, perhaps

much reduced, factor for pure diving jobs anywhere, but particularly in the UK. If one remembers why TechnipFMC chases pure diving jobs, then there's obviously nothing sinister about that. The contractor went back to chasing diving jobs, because it had to. 2018/2019 the construction market was soft. TechnipFMC had to chase diving jobs to keep up vessel utilisation and keep staff from being let go. Now the construction market is much stronger, it simply doesn't need to. Already the contractor has been turning away pure diving tenders and even for construction work won't often bid unless fabrication and installation are bundled together.

Additionally, the major contractors' fleets have to operate on a global basis. Already TechnipFMC has the Deep Arctic and Deep Explorer working as project support kit on its own international projects. The Arctic has just been on such work in Egypt and Israel, and for an extended period last year the Explorer was on construction tasks in India. The Ex-

velopment market picks up, especially in Norway, then the big two's diving ships return to a primary task of covering their own construction support commitments. As a result, Subsea 7 and TechnipFMC get less and less interested in pure diving jobs as they don't get the pull-through margins for turnkey or fabrication and installation packages, or they simply don't have the vessel availability to fit in dedicated diving jobs between bigger contract commitments.

That might be about to become even more pronounced, thanks to a TechnipFMC move. TechnipFMC already has the Deep Discoverer DSV booked late this year for an extended yard visit. *FrontRunner* understands the programme is centred around an upgrade to the NORSOK diving standard to allow the ship to work on diving jobs in Norway. The other two TechnipFMC DSVs – the Deep Arctic and newer Deep Explorer – are already rated for the Norwegian market. The Arctic was even originally built against



Twice a month **FrontRunner** opinion-based newsletter designed to stimulate debate and question market moves

Definitive vessel focused annual long-term market forecast

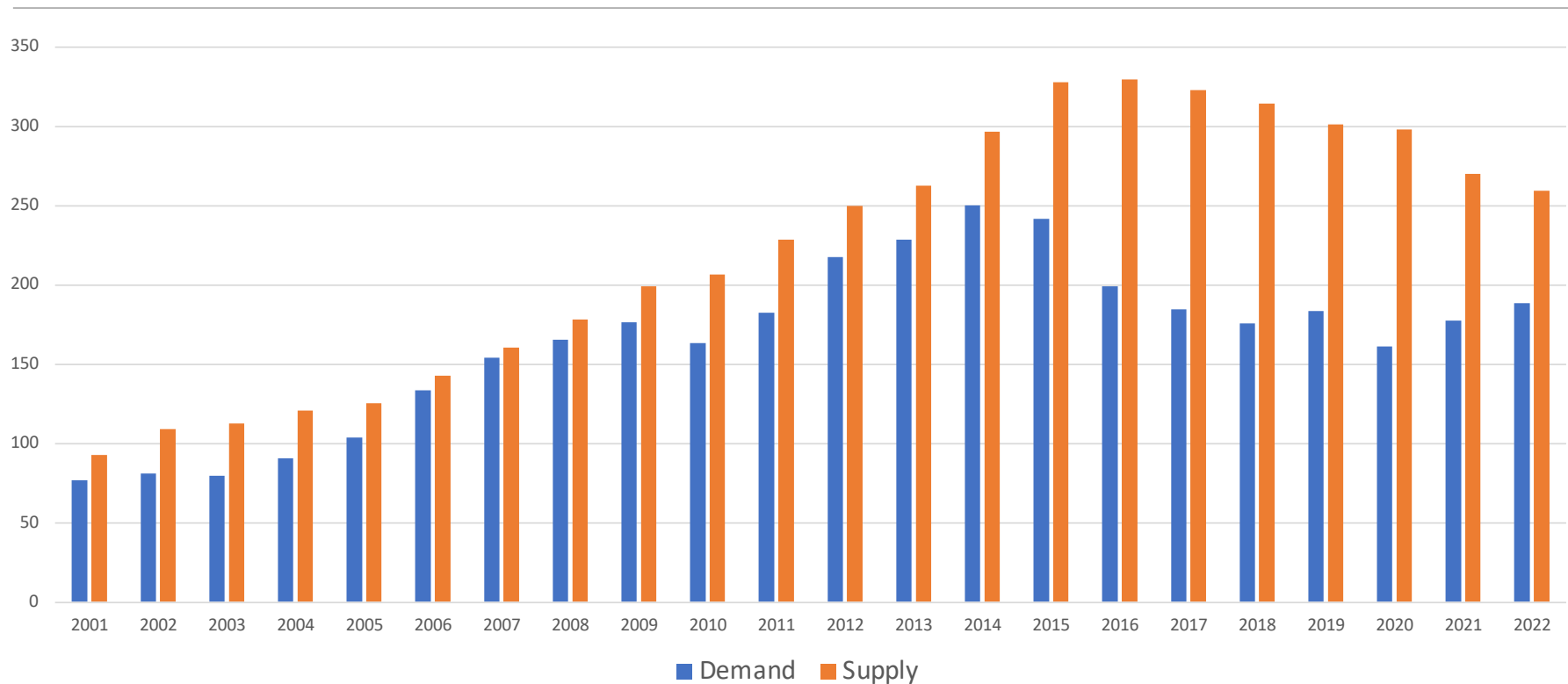
Bespoke market forecasting both ad-hoc and on regular basis

Constant consulting work for operators, contractors and financial investors either exposed to or looking at sector



Coming back together

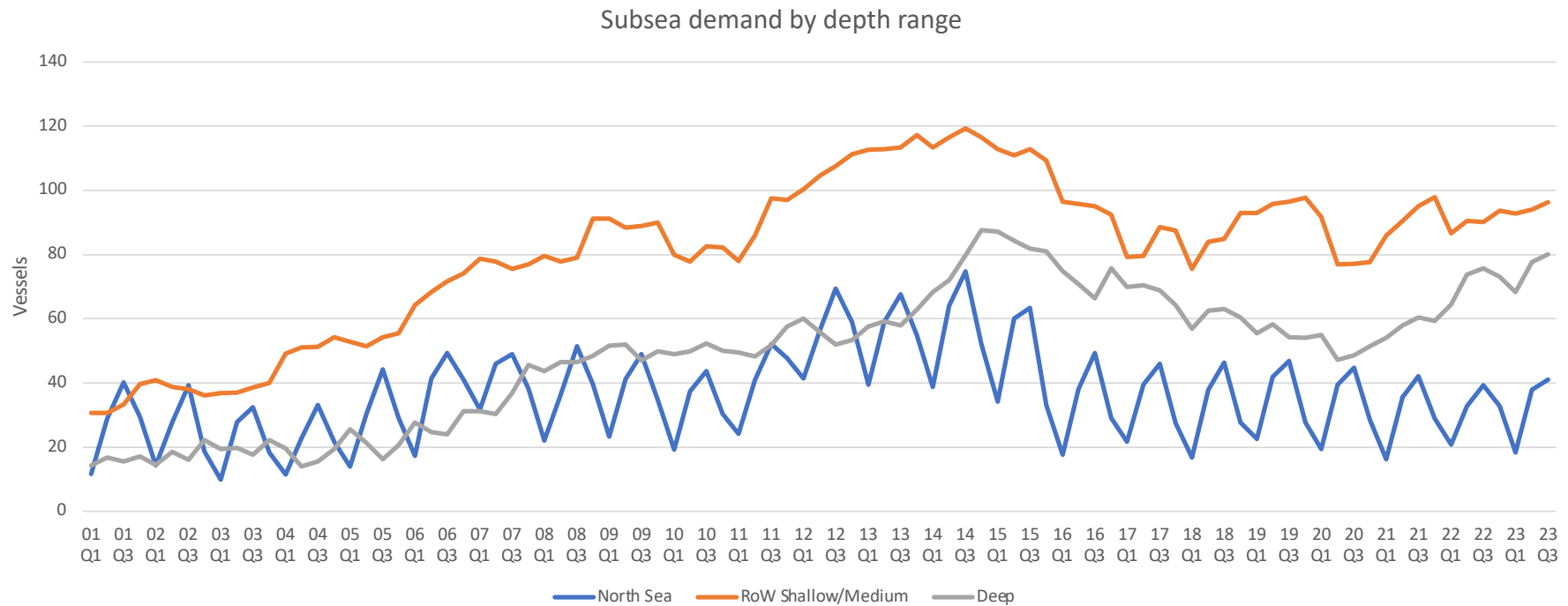
Global subsea support vessel demand and supply, all vessel classes





“I’ll be back” really proves true

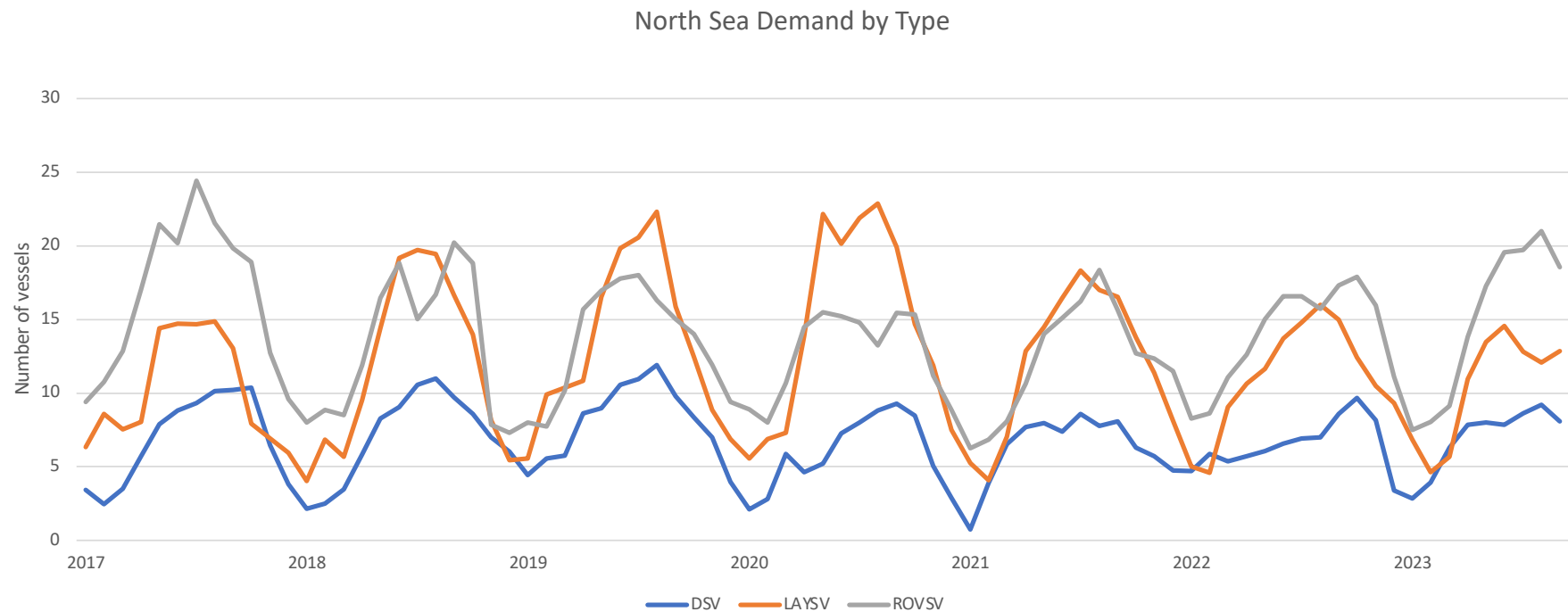
Subsea demand by depth range





Demand stable but supply cut

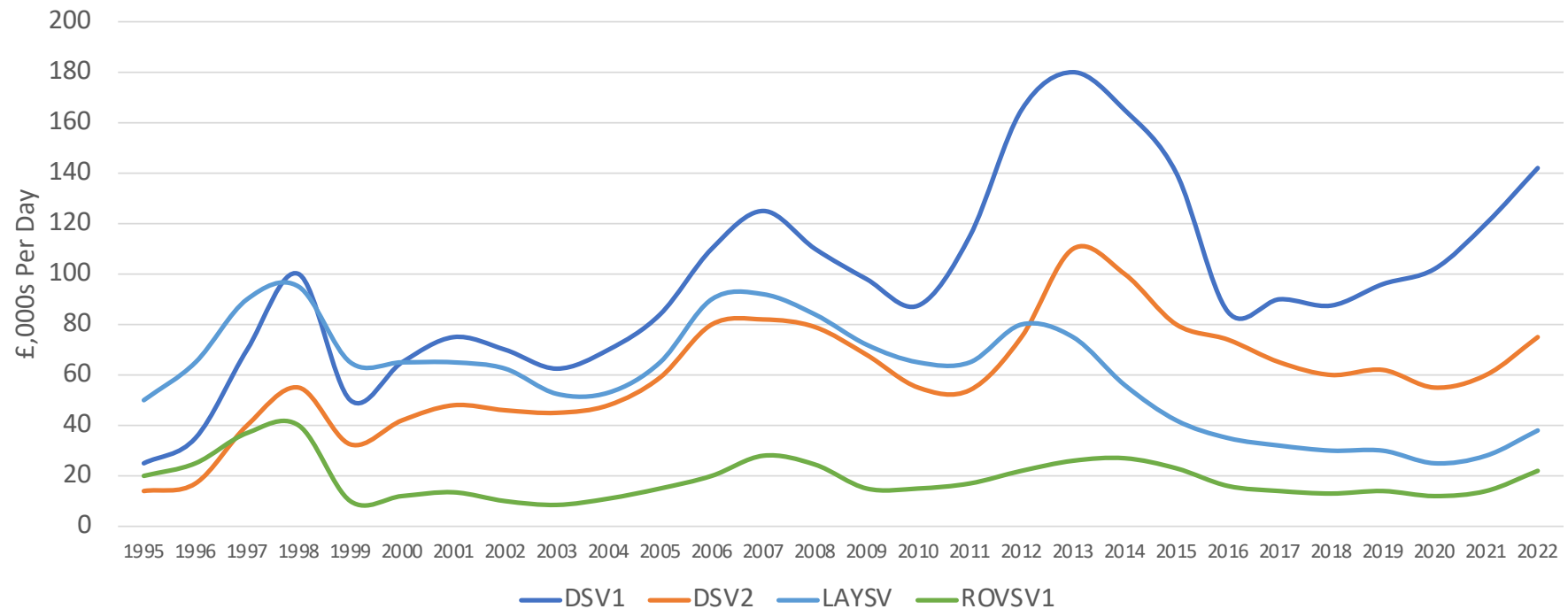
North Sea demand from 2017



Already firming as momentum builds



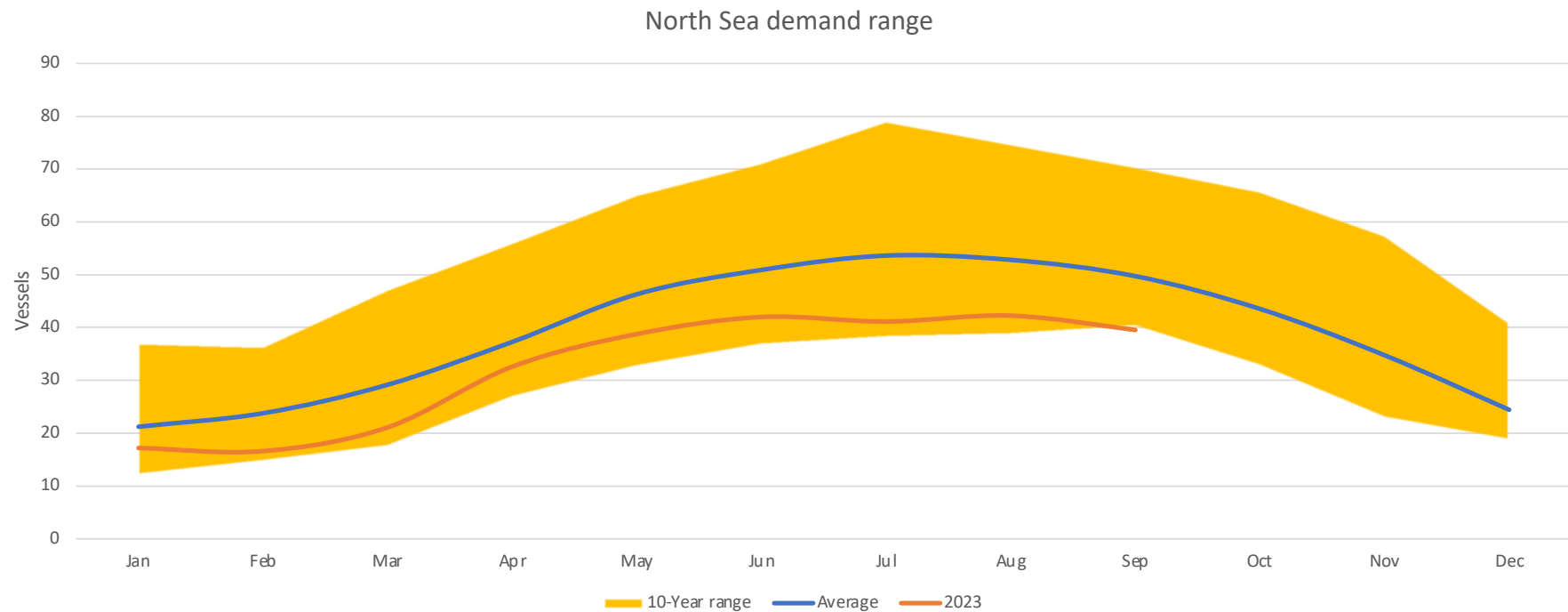
Subsea vessel day-rates





Surprisingly flat as a pancake

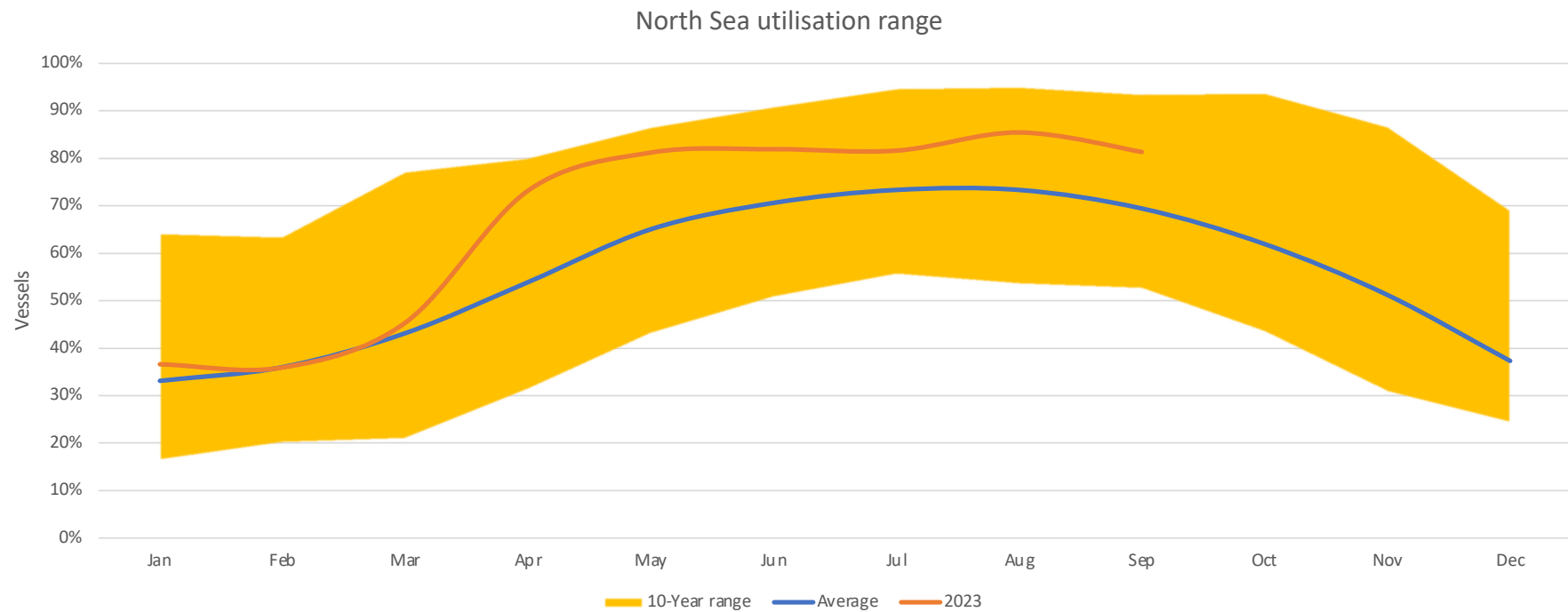
North Sea demand range 2013 to 2023 – all vessel classes





Less supply kicks things up a notch

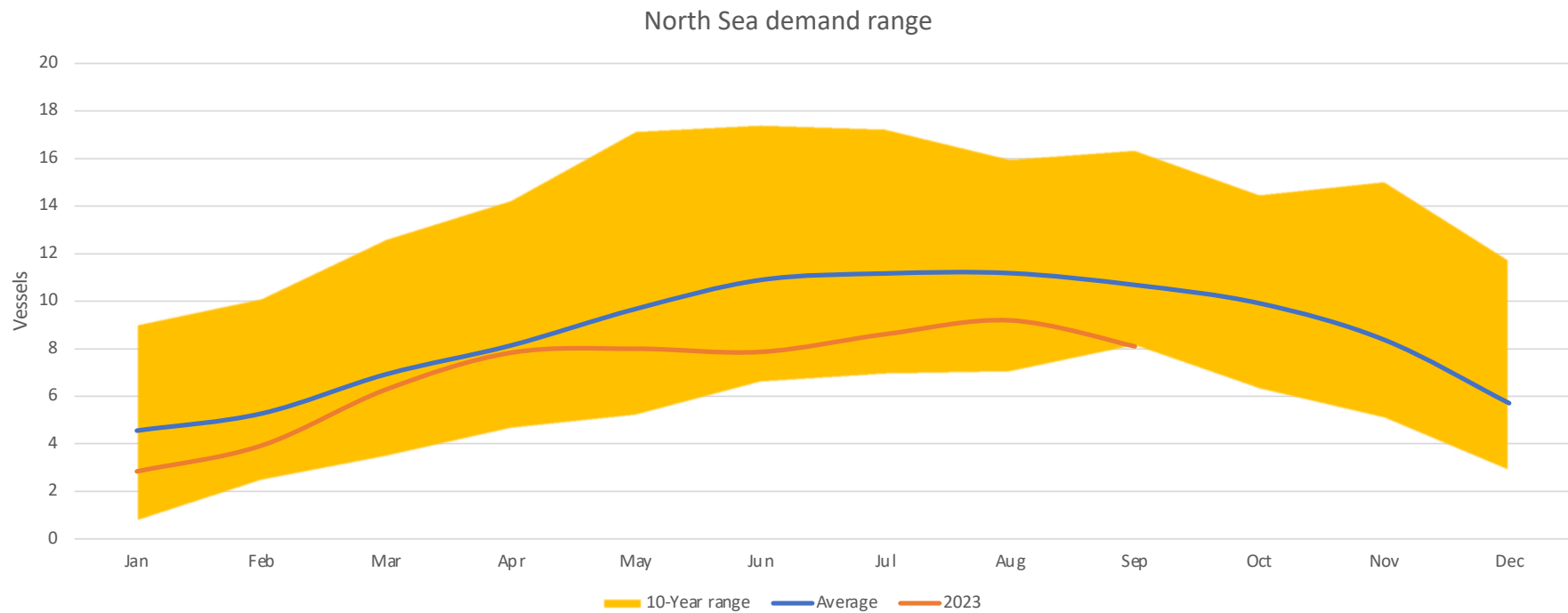
North Sea vessel utilisation 2013 to 2023





Modest, but only half the story

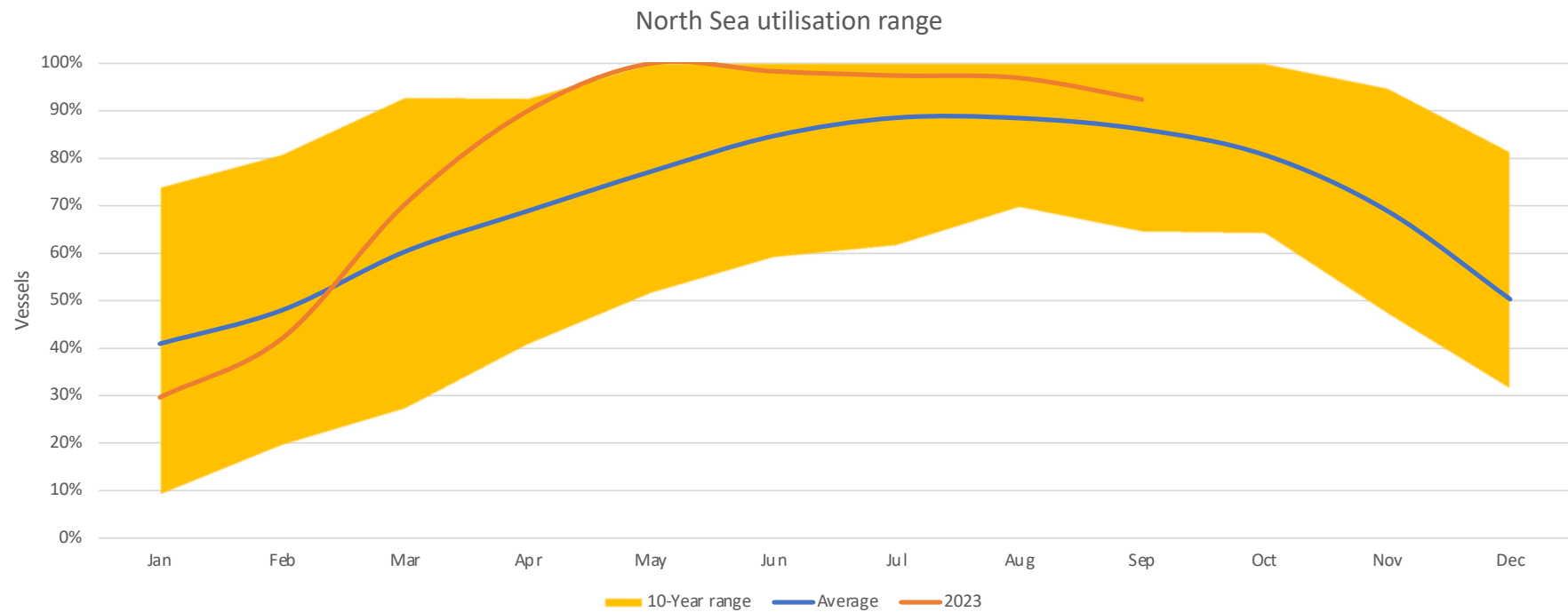
Seasonal North Sea DSV demand





Already reaching its limit

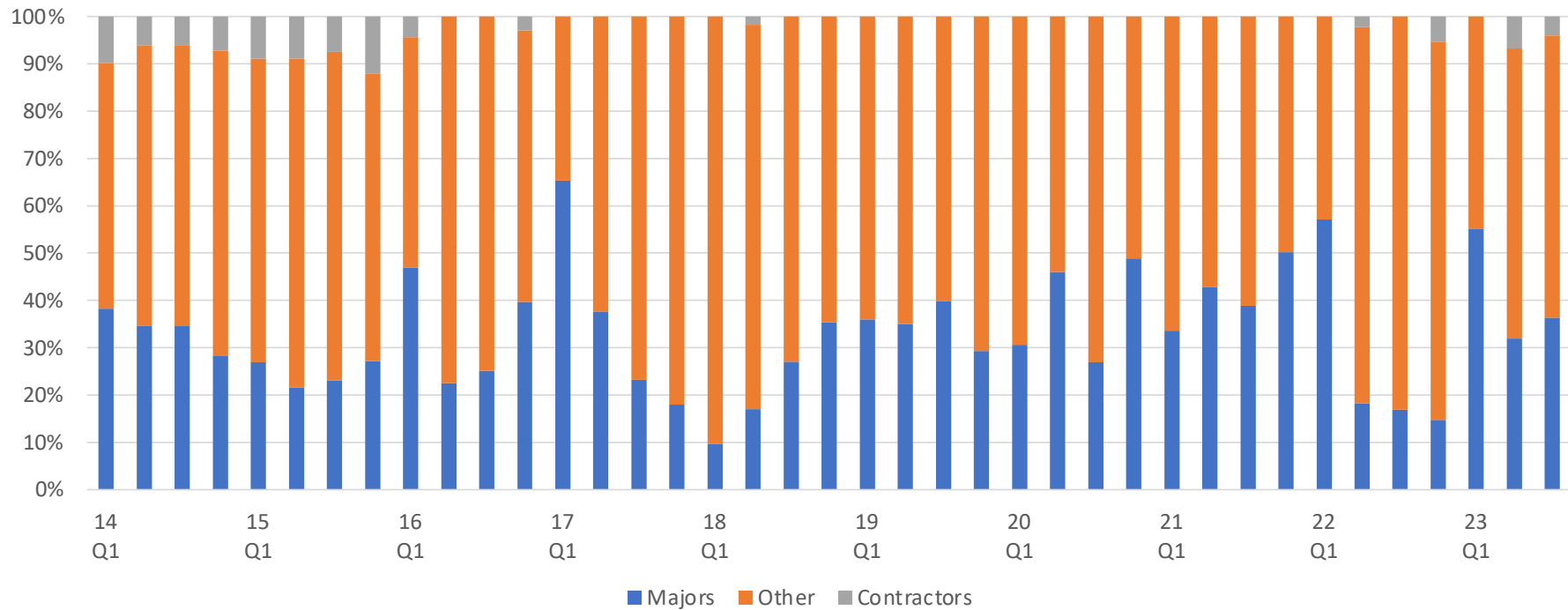
Seasonal North Sea DSV utilisation





Majors often make up less of market

North Sea DSV demand by client type

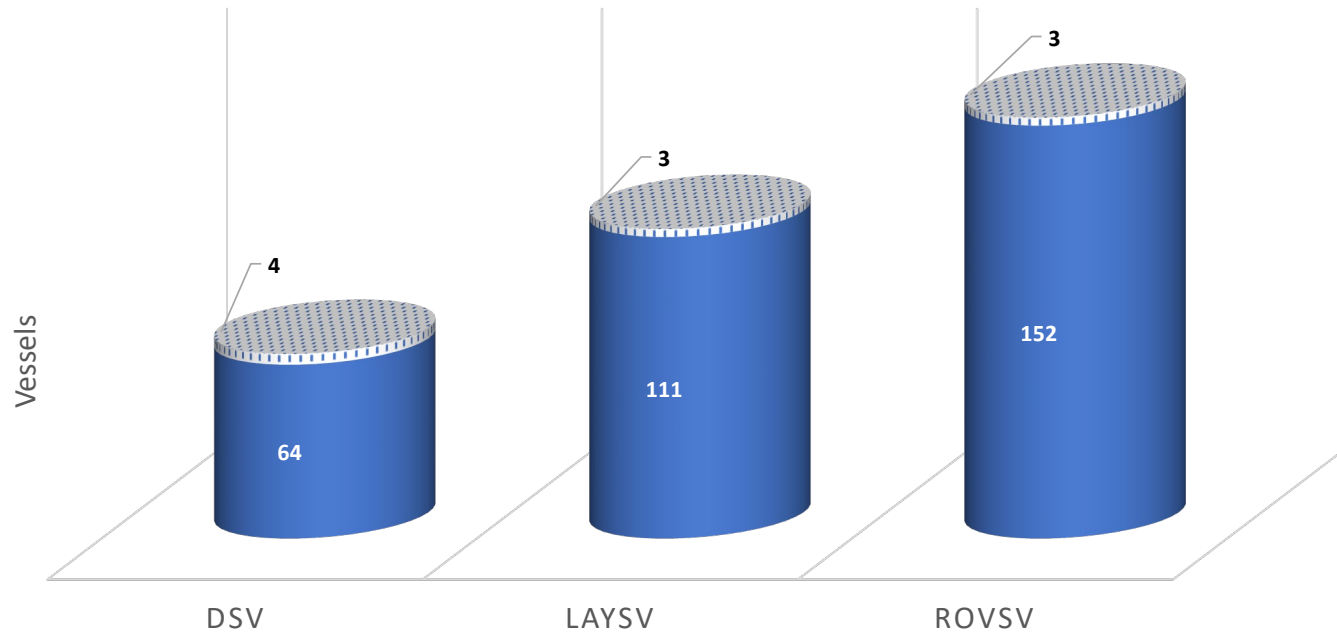




Tiny number of newbuilds left hanging

Existing subsea vessel fleet and additions

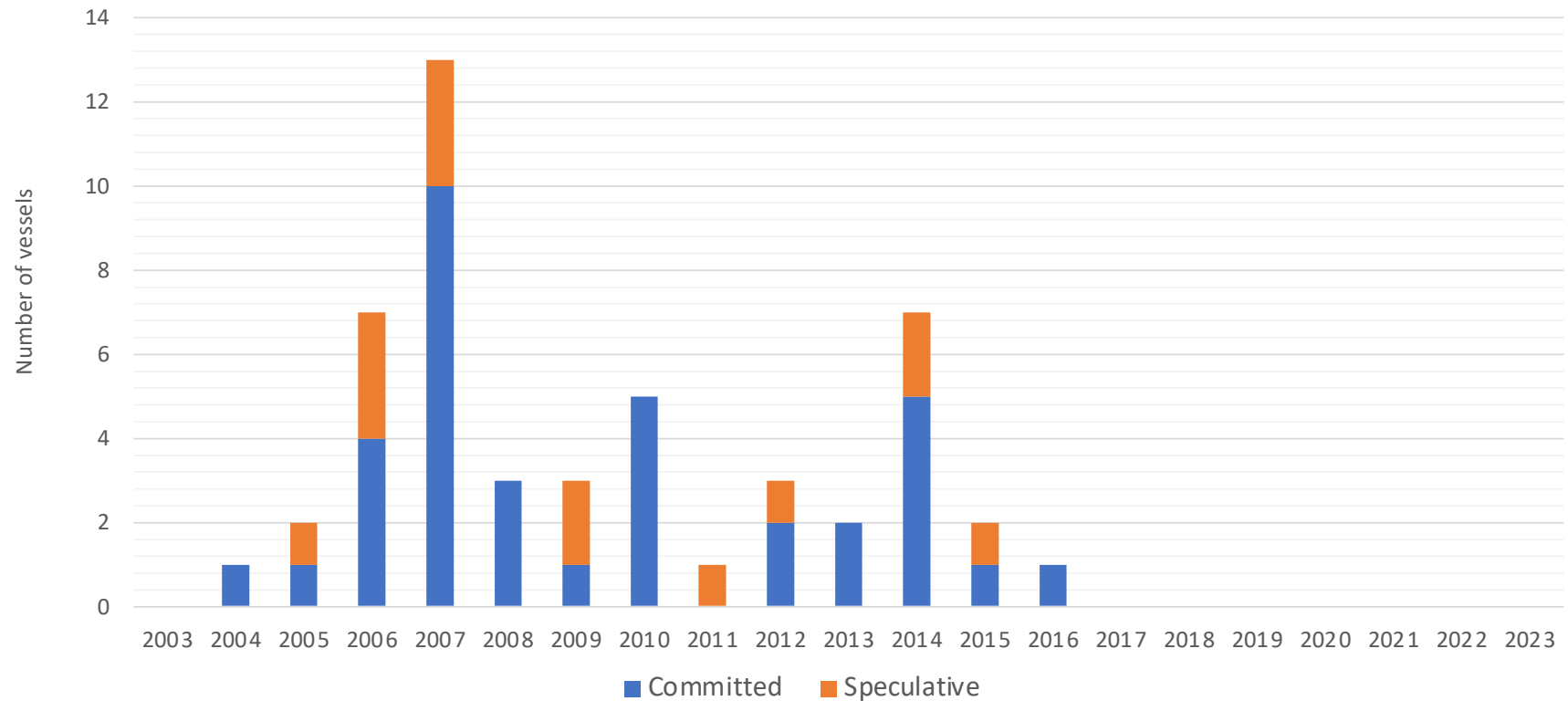
Solid columns: delivered; gradient columns: additions through 2023, active fleet includes subsea vessels currently, temporarily working outside markets





No one has the guts to order

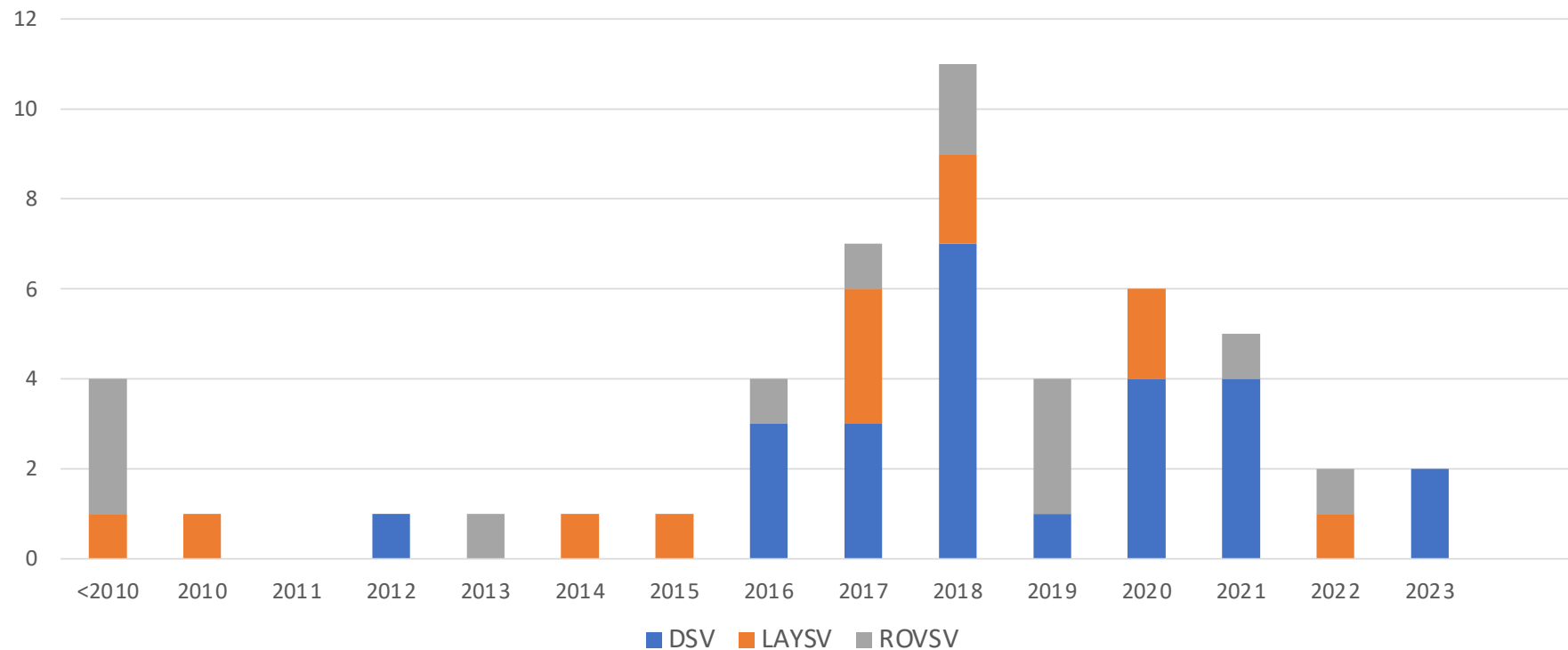
Committed and speculative DSV builds by order date





Scrapping has made marked difference

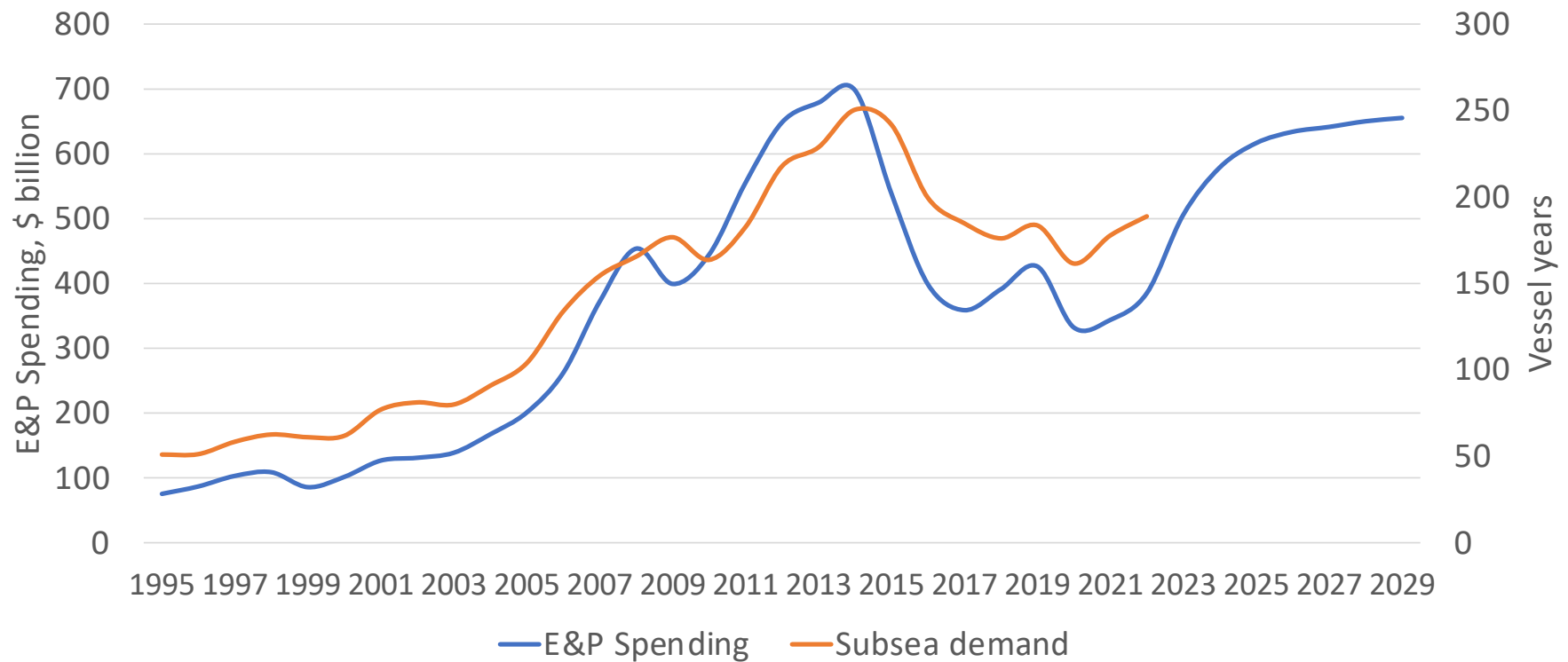
Subsea vessels scrapped since 2010 by type





Back in the room and reacting quickly

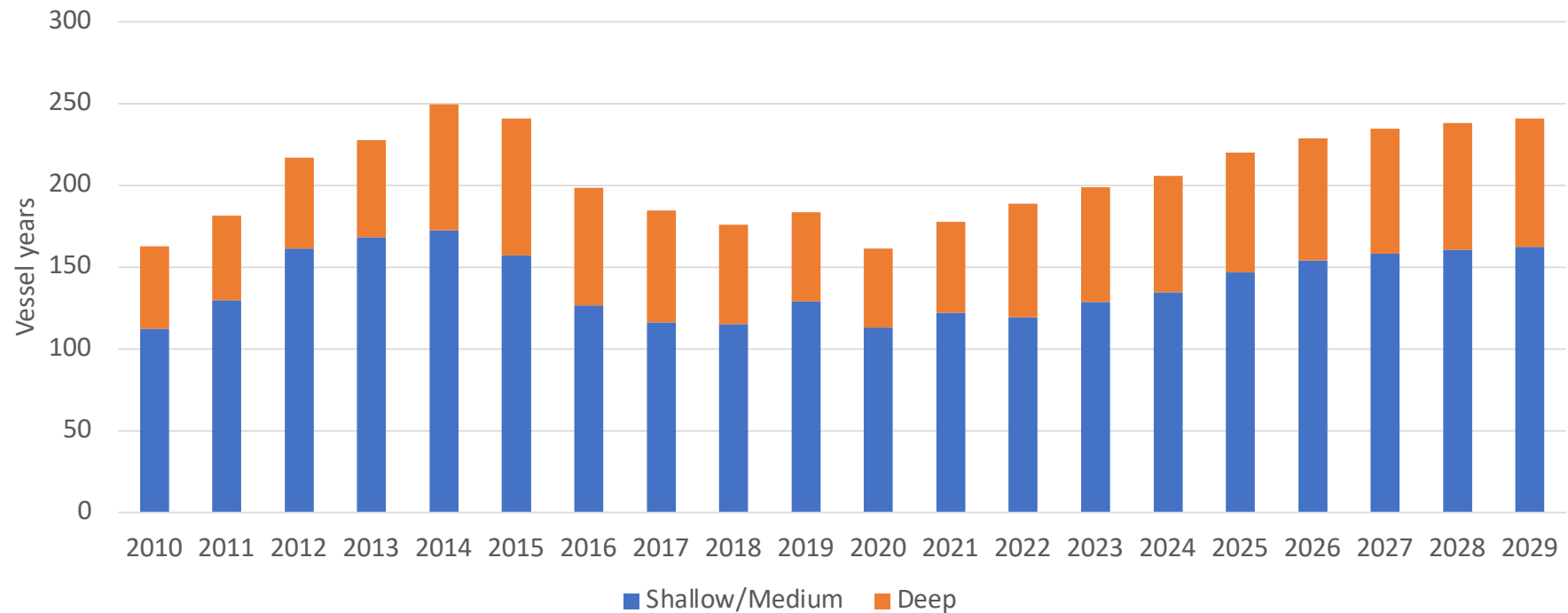
E&P Spending and subsea demand





A new improved design for living

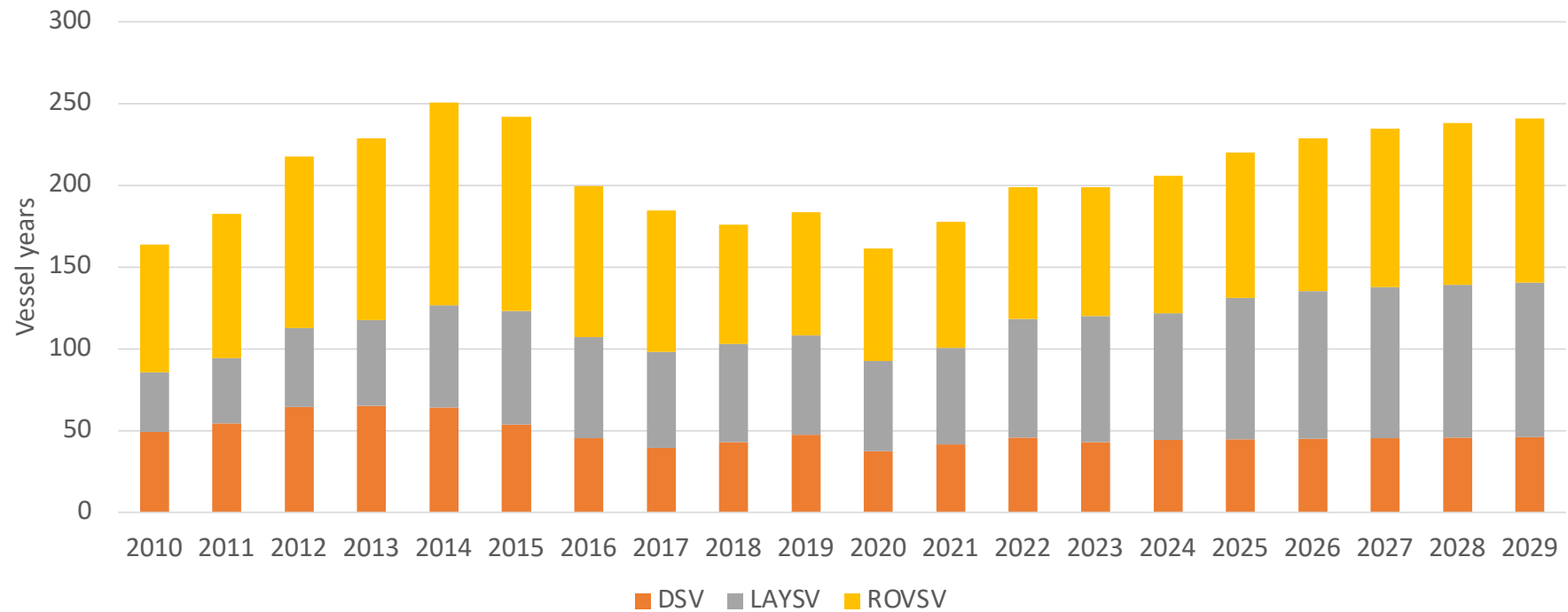
Global demand by depth range to 2029





Engine is already revving

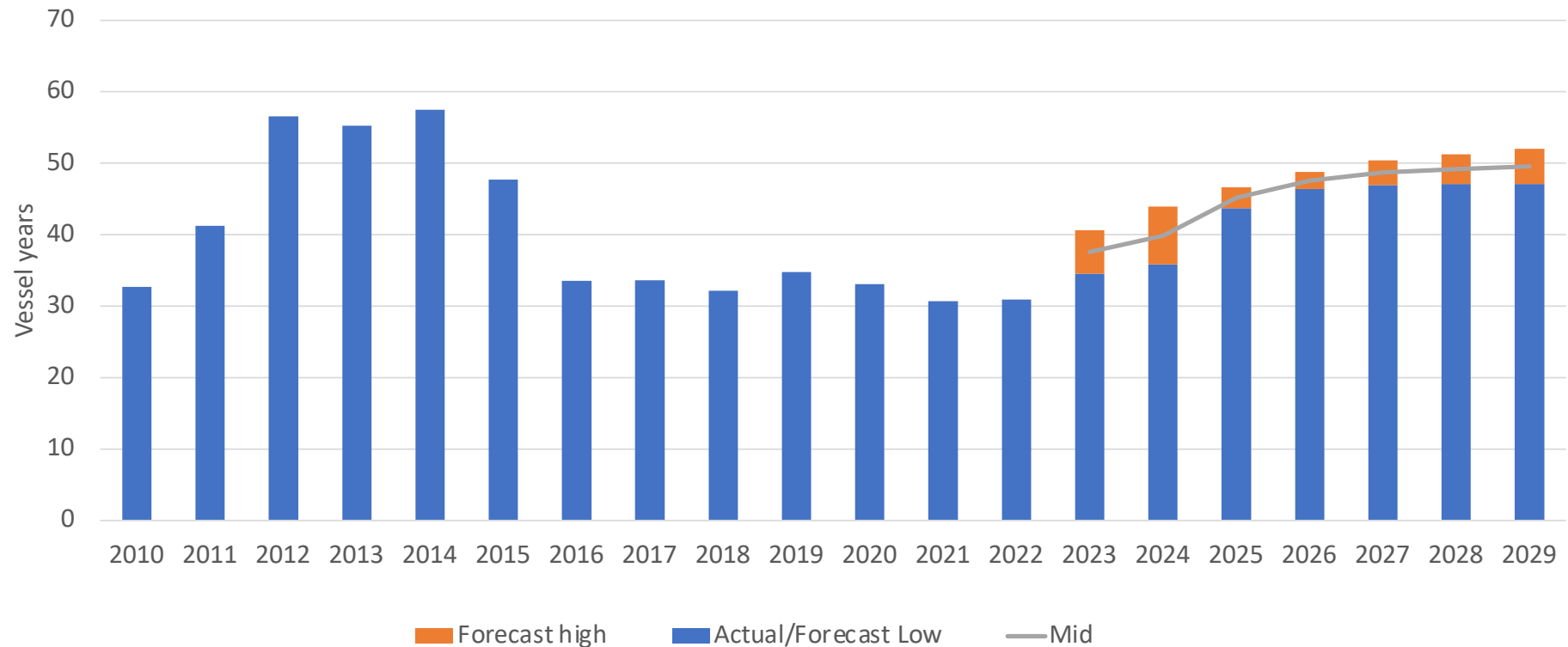
Global demand by vessel type to 2029





Norway makes all the running

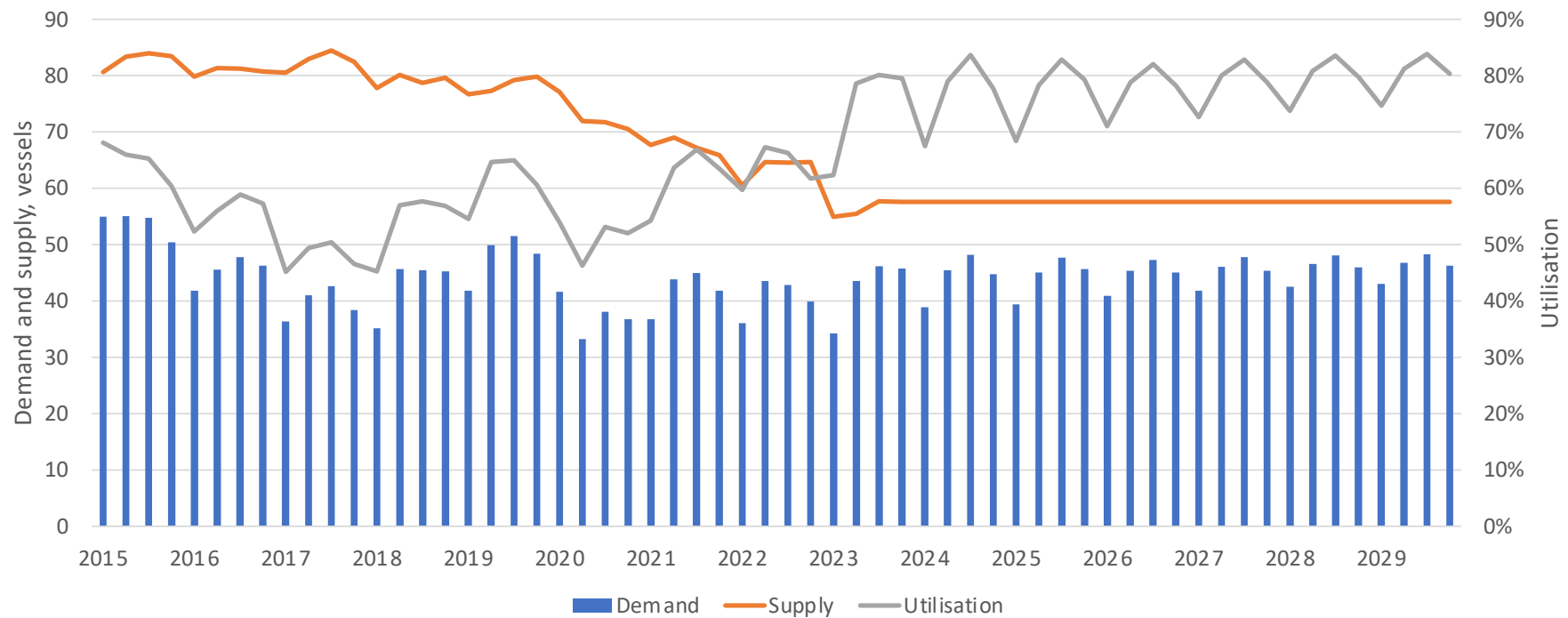
North Sea demand to 2029, all vessel types



Regions will be more tight



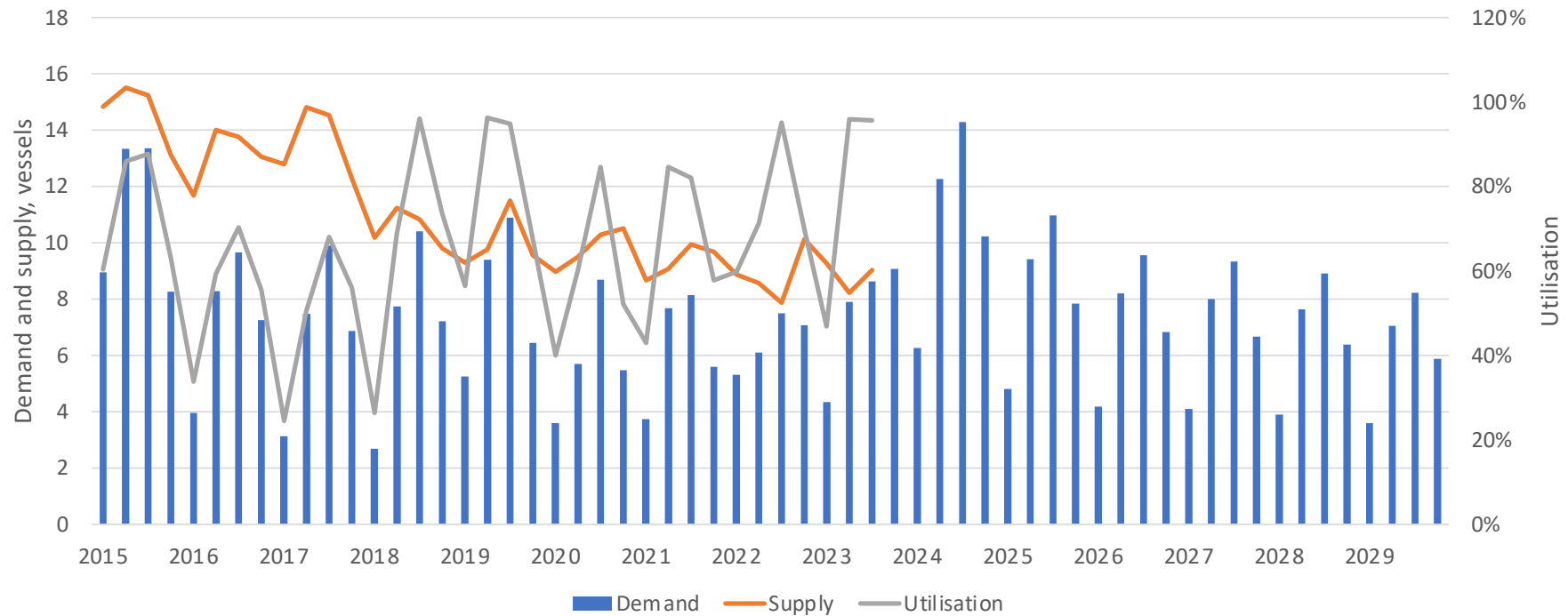
Global DSV supply and demand by quarter





Making do with limited supply

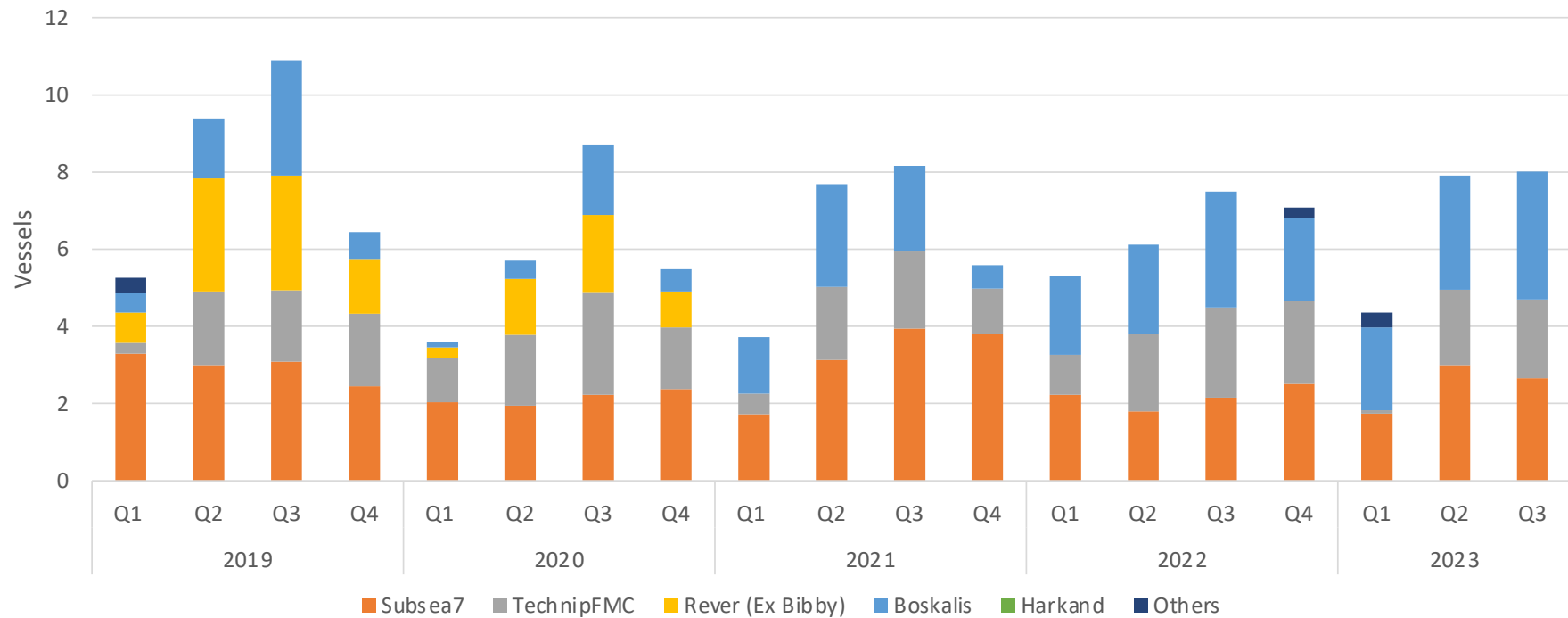
North Sea DSV supply and demand by quarter





Boskalis is the key swing supplier

North Sea DSV demand by contractor





Key Points

- Dynamics of subsea market changed with (non-UK) construction work ramping up. UK underwritten by decommissioning which can be pushed back
- Scrapping completely changed supply side tightening market globally – ships with deck-mounted systems make comeback in some regions
- Mermaid and Shelf become very important to international market
- TechnipFMC and Subsea 7 have increasing need for their DSVs to support their own projects
- North Sea demand is far from stellar but utilisation already very high on back of fleet management and unlikely to change
- Plans for additional North Sea players and ships are tending to be all talk
- Remaining newbuilds all have issues so unlikely to make any difference soon



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