



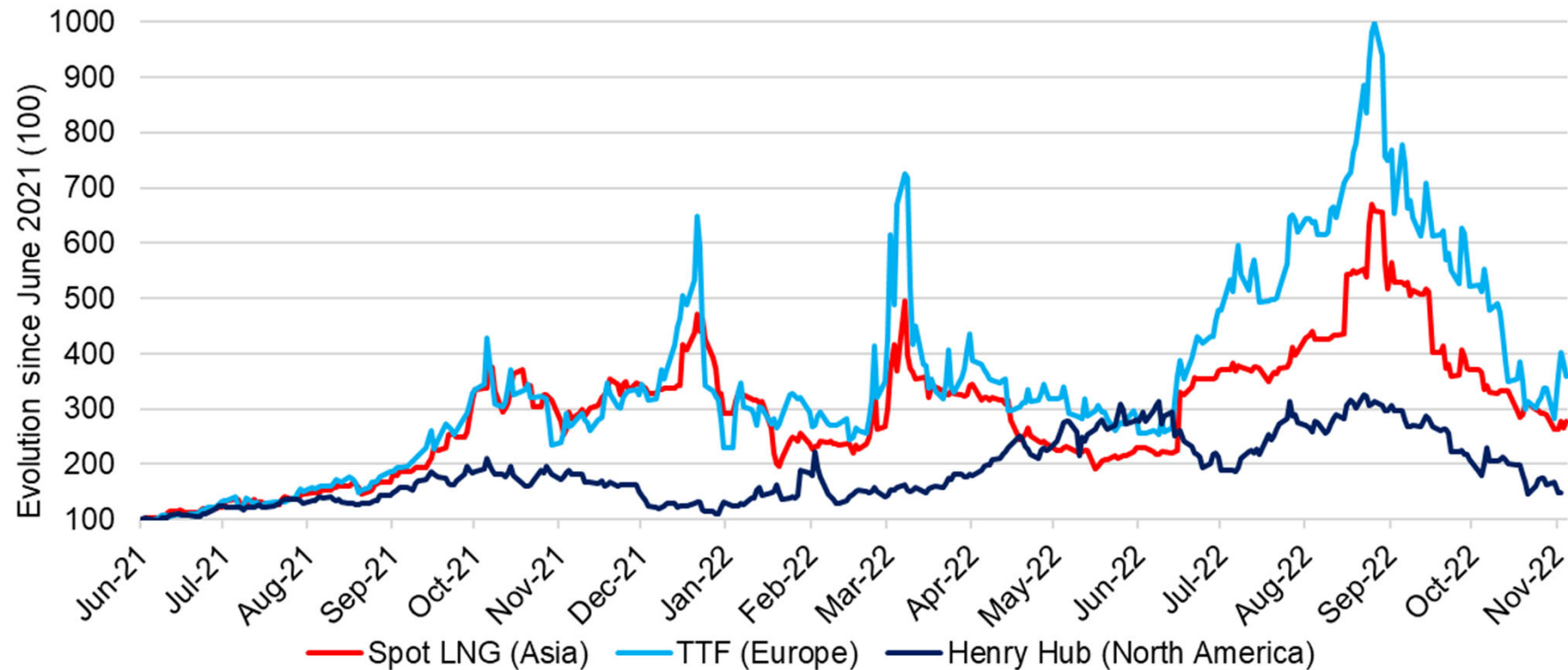
# Gas Market Report 22Q4

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IEEJ Global Energy Webinar, 15 November 2022

# The invasion of Ukraine drove European and Asian prices to record highs

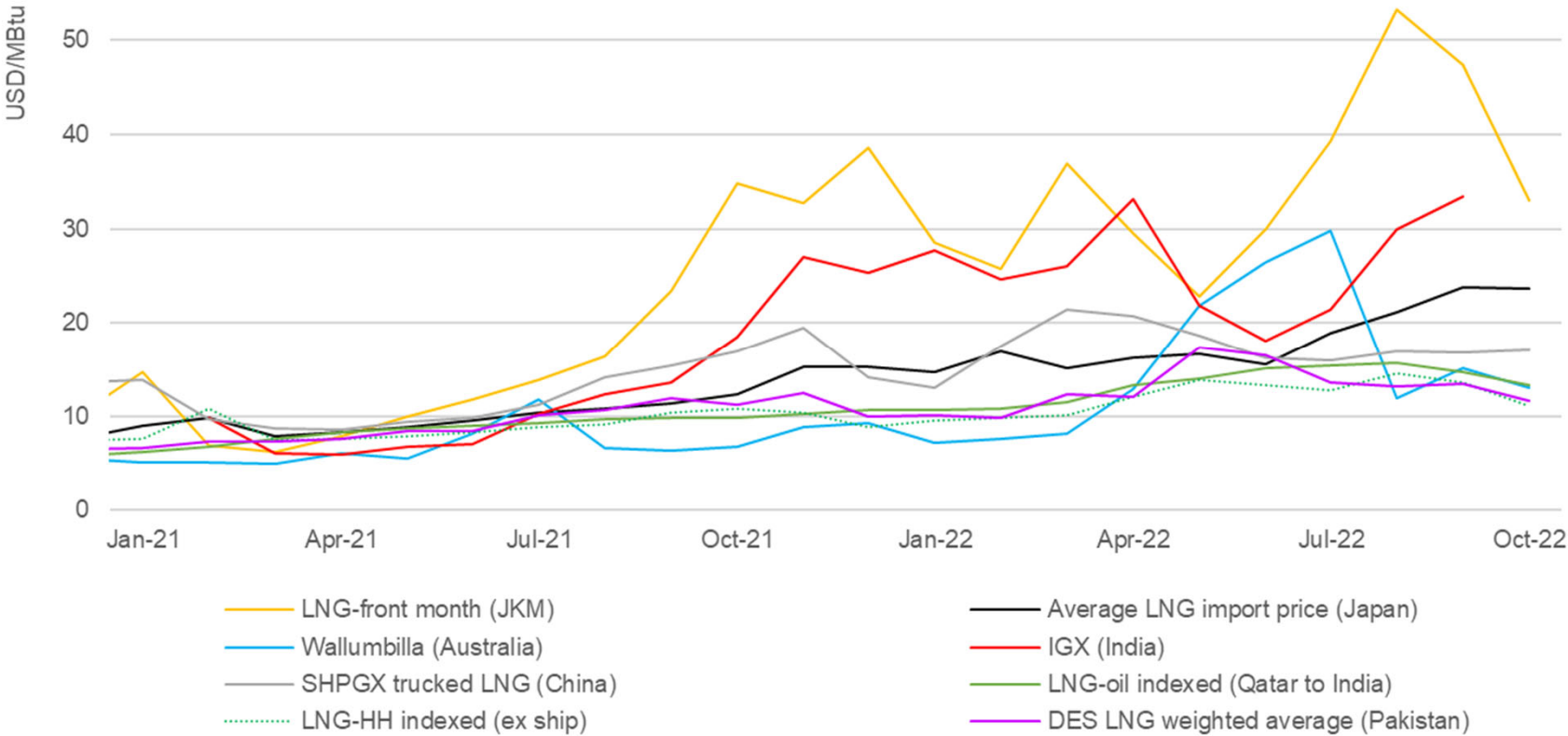
Evolution of key regional natural gas prices since mid-2021



Russia's invasion of Ukraine created a period of unprecedented uncertainty and volatility for European and Asian spot prices alike.

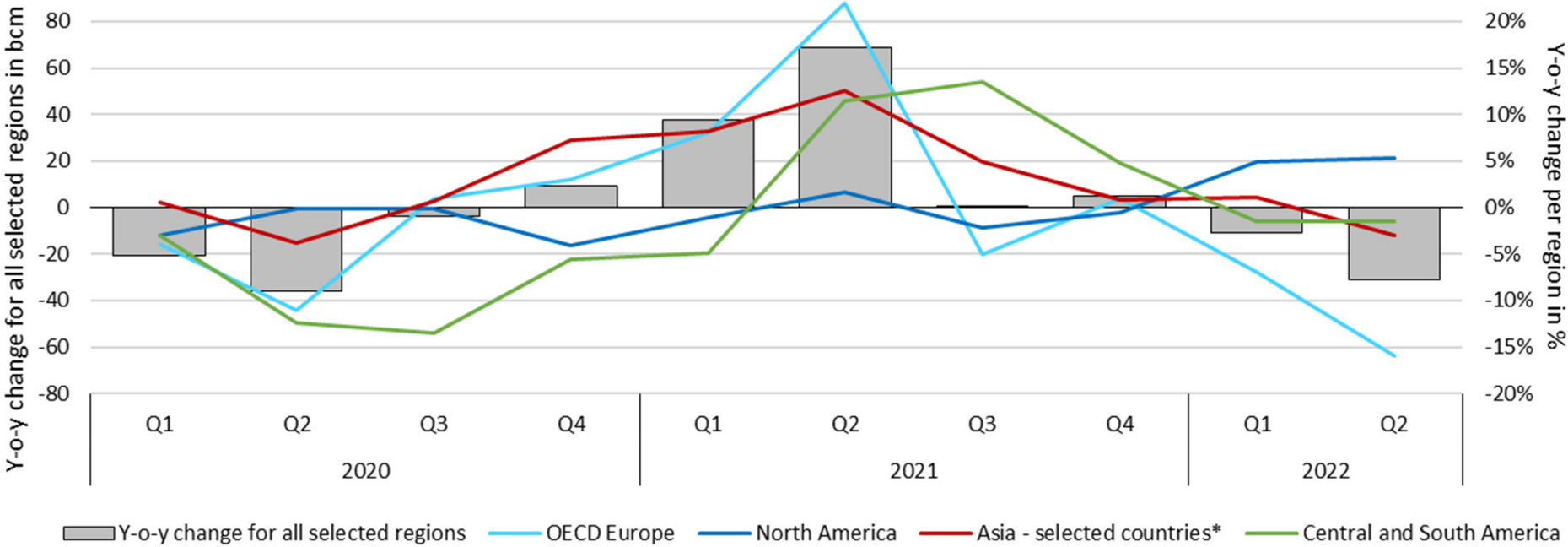
# Focus on Asia Pacific gas prices

Key Asia Pacific natural gas prices, 2021-2022



# High prices erode gas demand across the main markets

Estimated change in gas demand, selected regions, 2020-2022

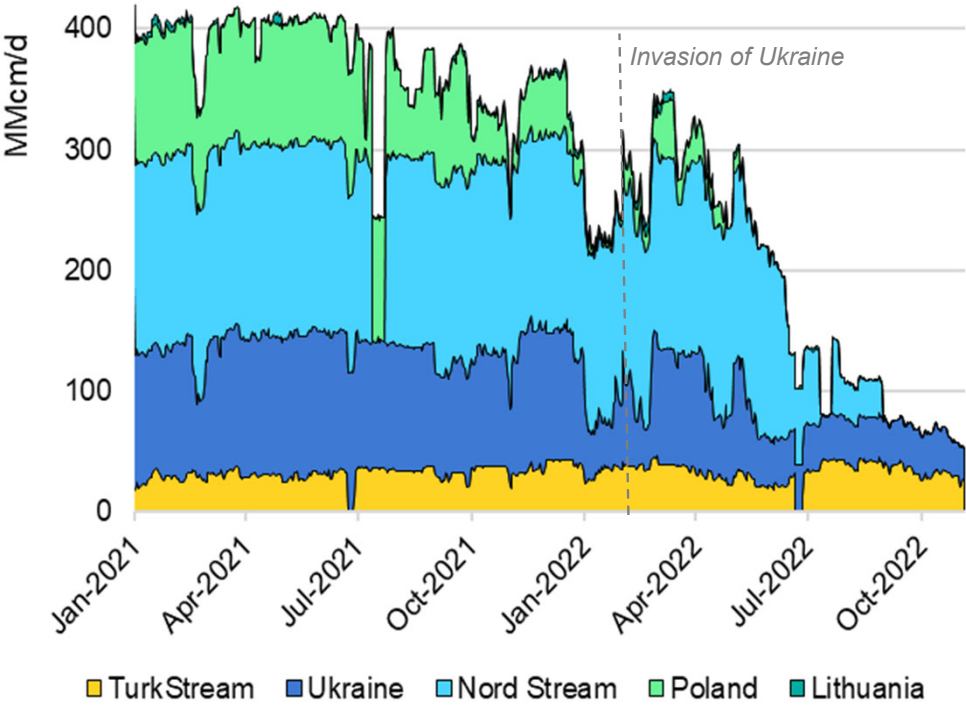


\*China, India, Indonesia, Japan, Korea and Thailand

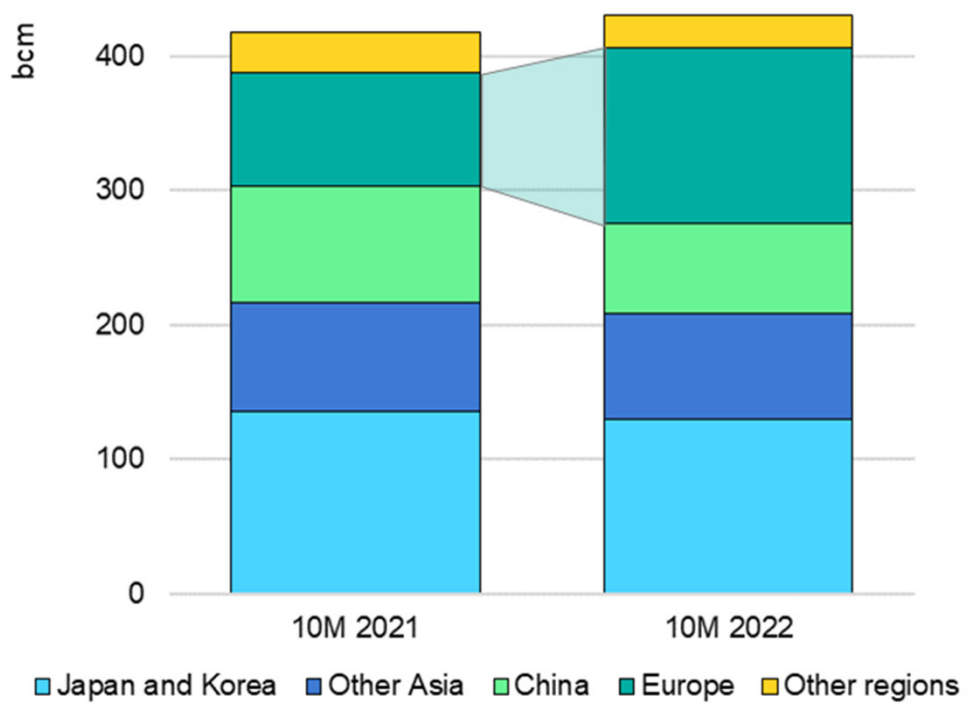
Tight gas supply and high prices have triggered fuel switching and demand destruction across all major gas-importing markets.

# Europe turns into a premium market for LNG as Russian flows tumble

Russian gas pipeline flows to the EU and Türkiye, 2021-2022



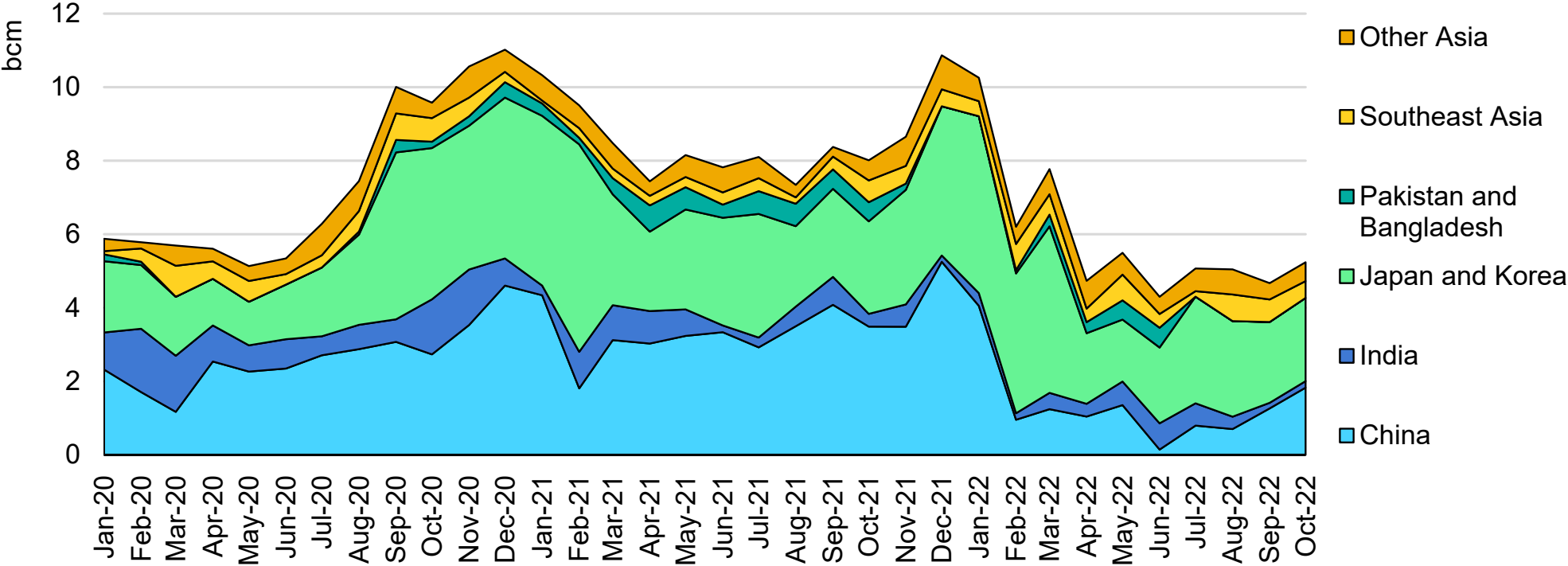
LNG demand per main market (Jan-Oct), 2021-2022



Russian pipeline flows to the European Union halved in the first ten months of 2022, triggering a 65% increase in net LNG imports and a wholesale realignment of LNG trade flows around the world.

# Global LNG market tightness induces shifting trade patterns in Asia

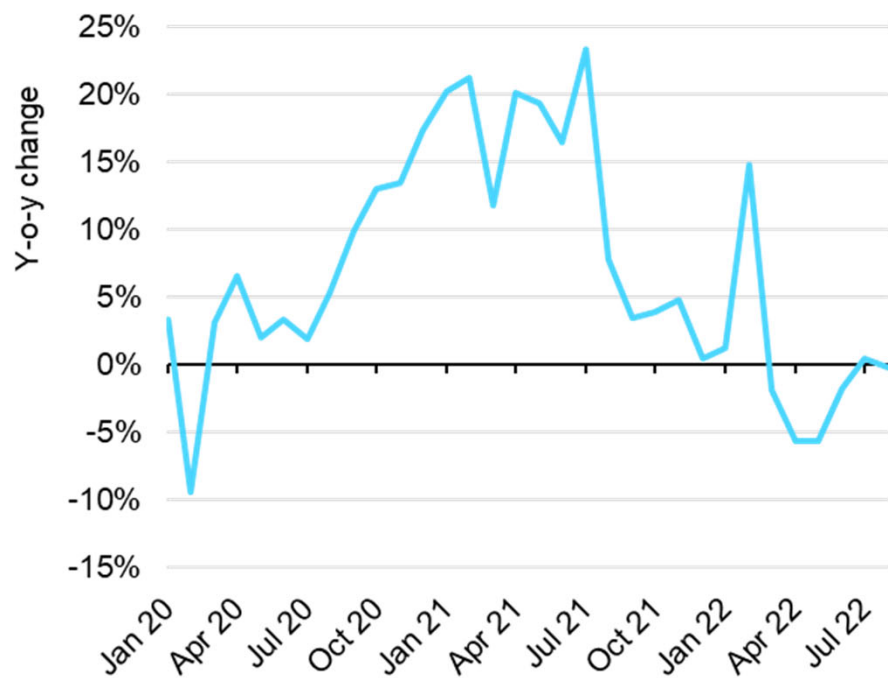
Evolution of spot LNG trade in Asia Pacific, 2020-2022



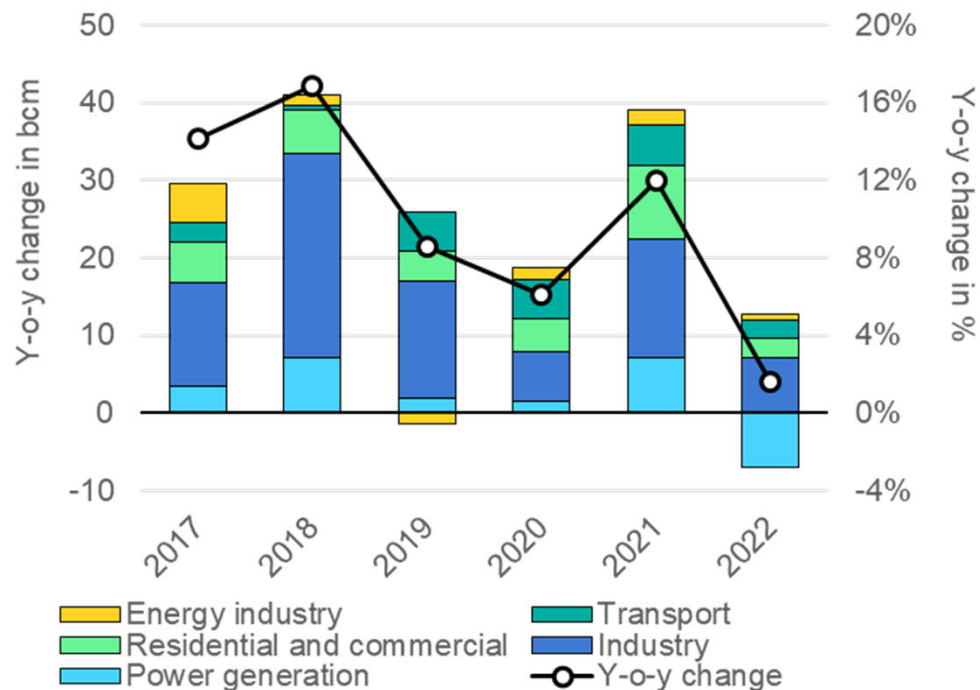
Asian spot LNG imports collapsed since the beginning of the year and about 40% of short-term tenders were left unawarded.

# Weak Chinese demand provided relief for the European market

Monthly gas demand, China, 2020-2022



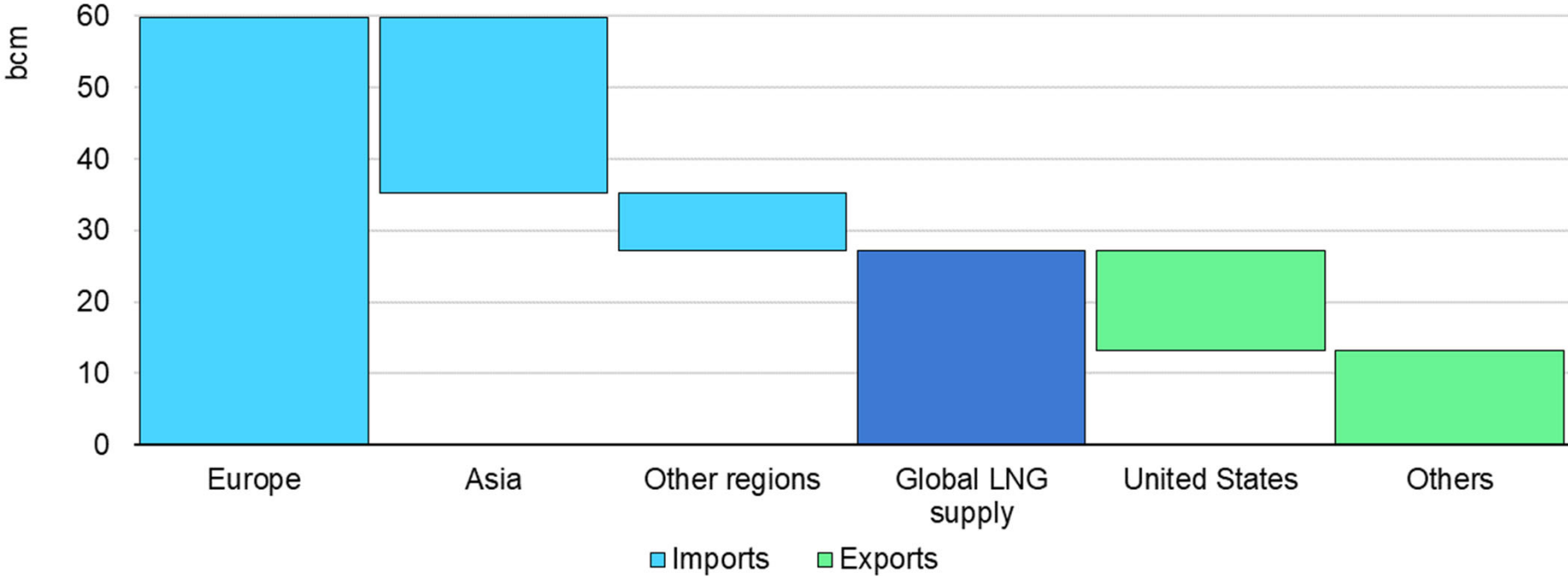
Annual gas demand, China, 2017-2022



China's gas demand is forecasted to increase by less than 2% in 2022, its lowest annual growth rate since the early 1990s.

# Europe's incremental supply needs drive LNG growth and tightness

Global LNG balance, y-o-y change, 2021-2022

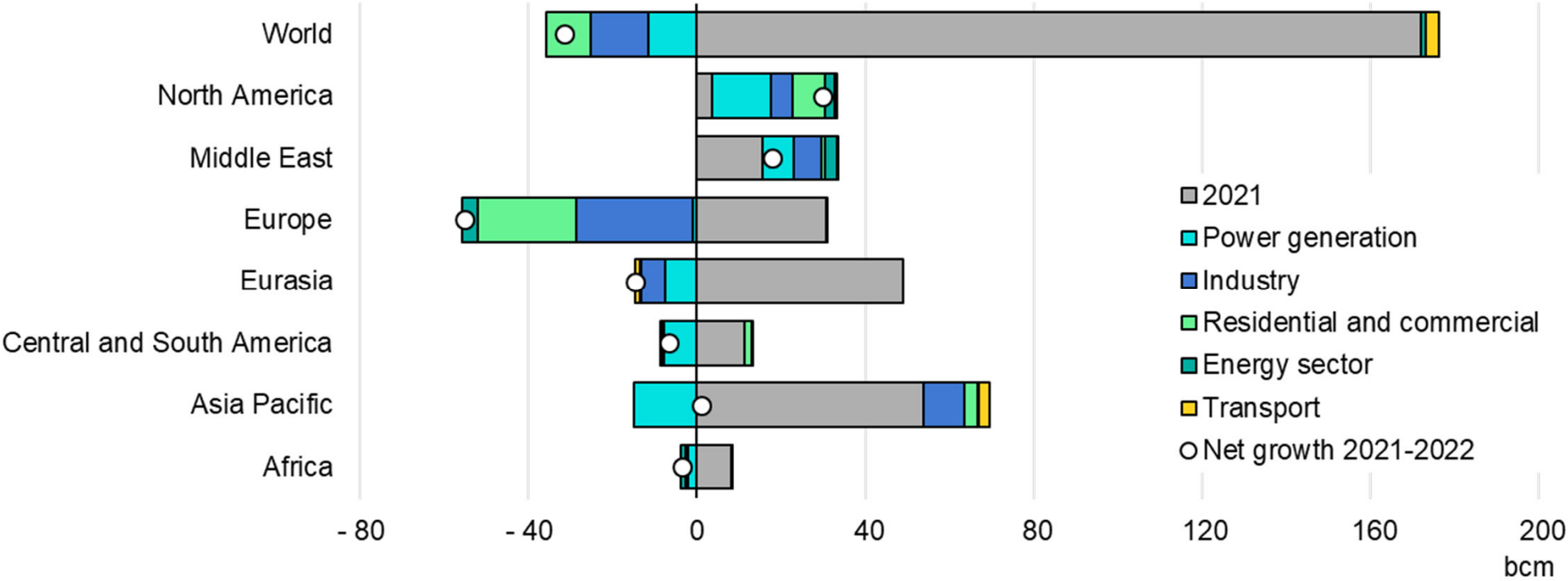


Global LNG trade flows reconfigure as Europe's incremental LNG needs are expected to account for over twice the amount of supply capacity additions in 2022.



# Global gas growth turns negative in 2022 after a 4.5% jump in 2021

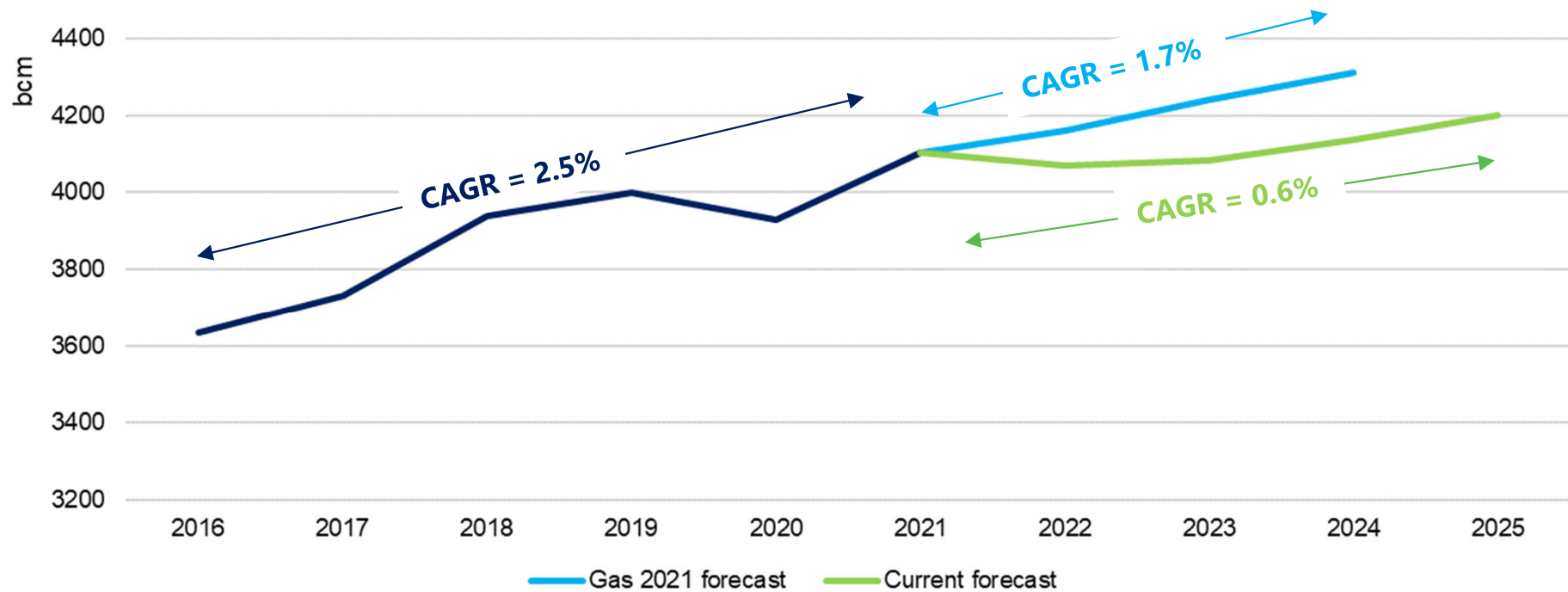
Change in gas demand by region, 2021-2022



Asia Pacific demand increase is capped by tensions on access to supply, while European gas consumption is foreseen to plunge below its 2020 level.

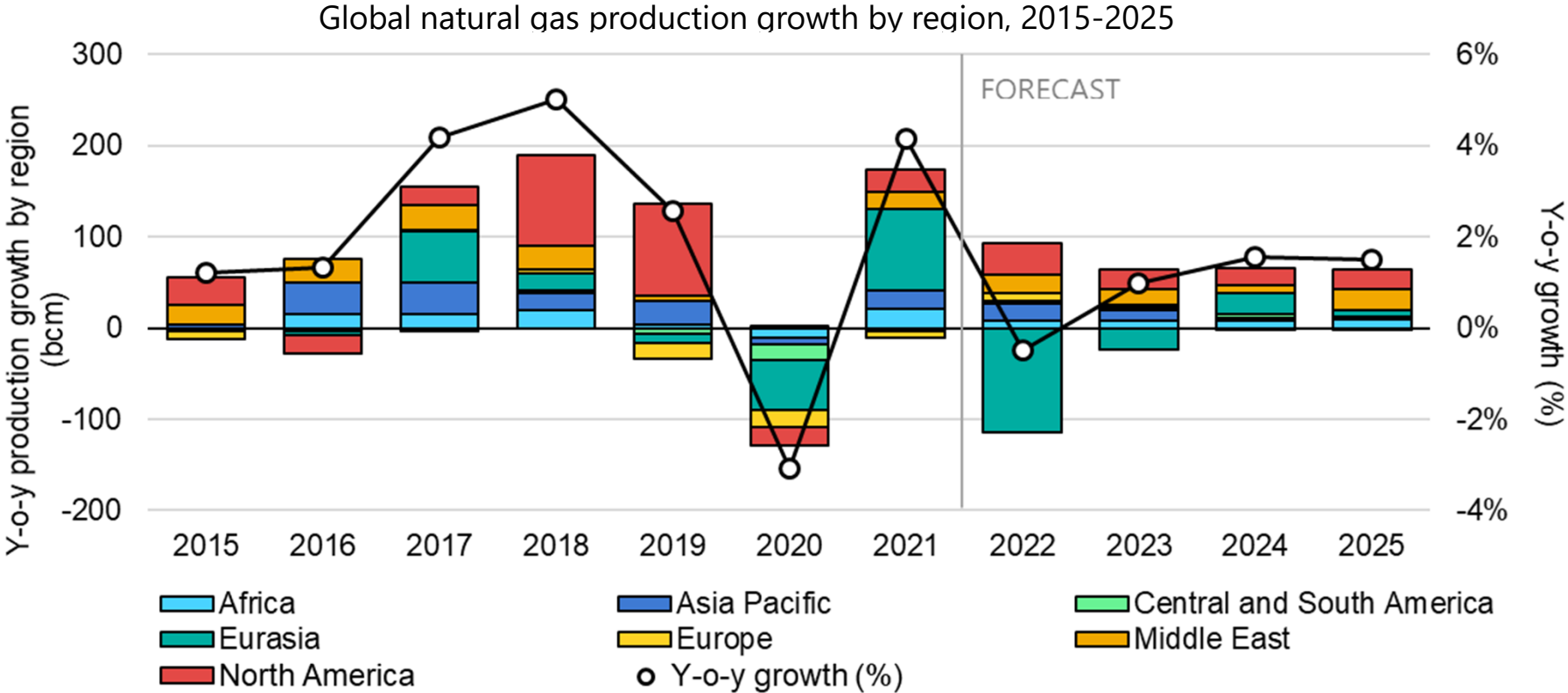
# Short-term growth comes to a halt, uncertainty limits growth potential to 2025

Evolution of global gas demand forecasts in the latest issues of the IEA medium-term gas report



Current market tensions and medium-term uncertainty result in a more than 60% cut in our forecast of average growth in gas demand, compared to our previous outlook.

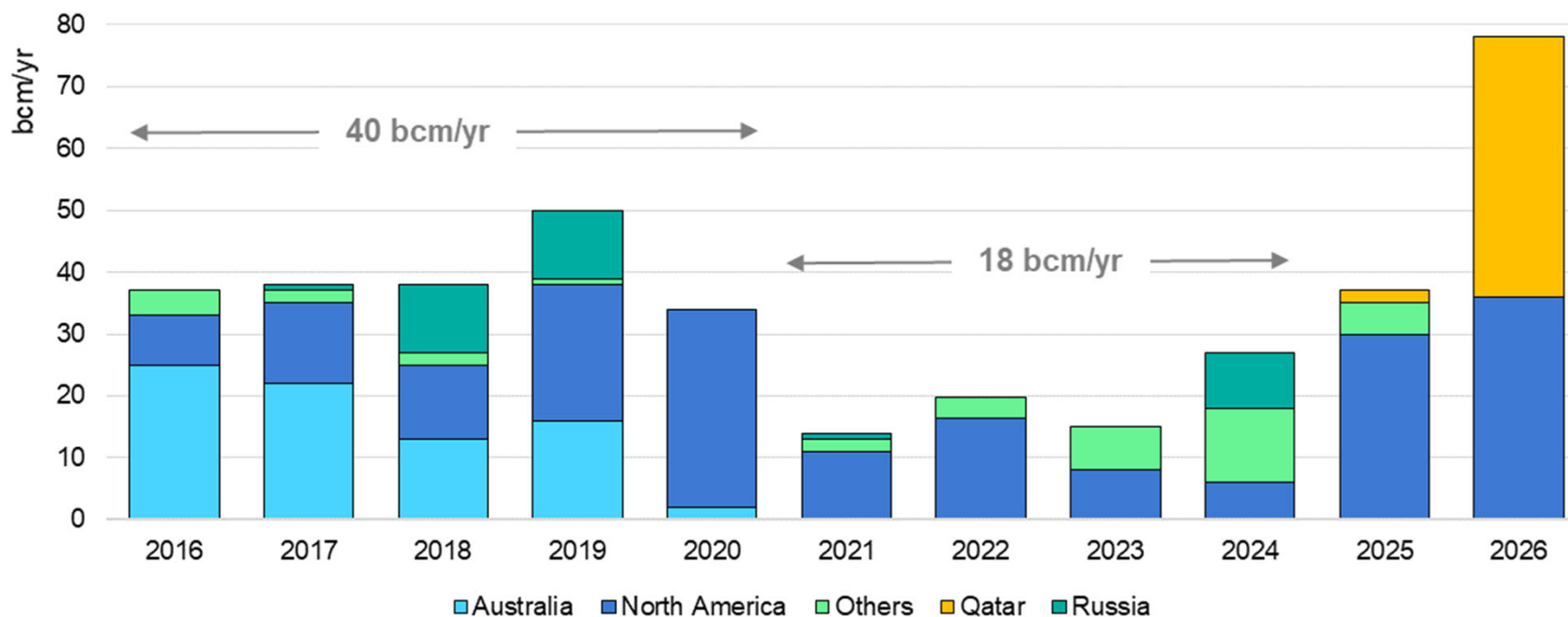
# Gas production growth to 2025 remains limited and concentrated



North America and the Middle East take a strong lead on additions to gas production while Russia dips on declining export prospects.

# LNG capacity additions provide limited medium-term support

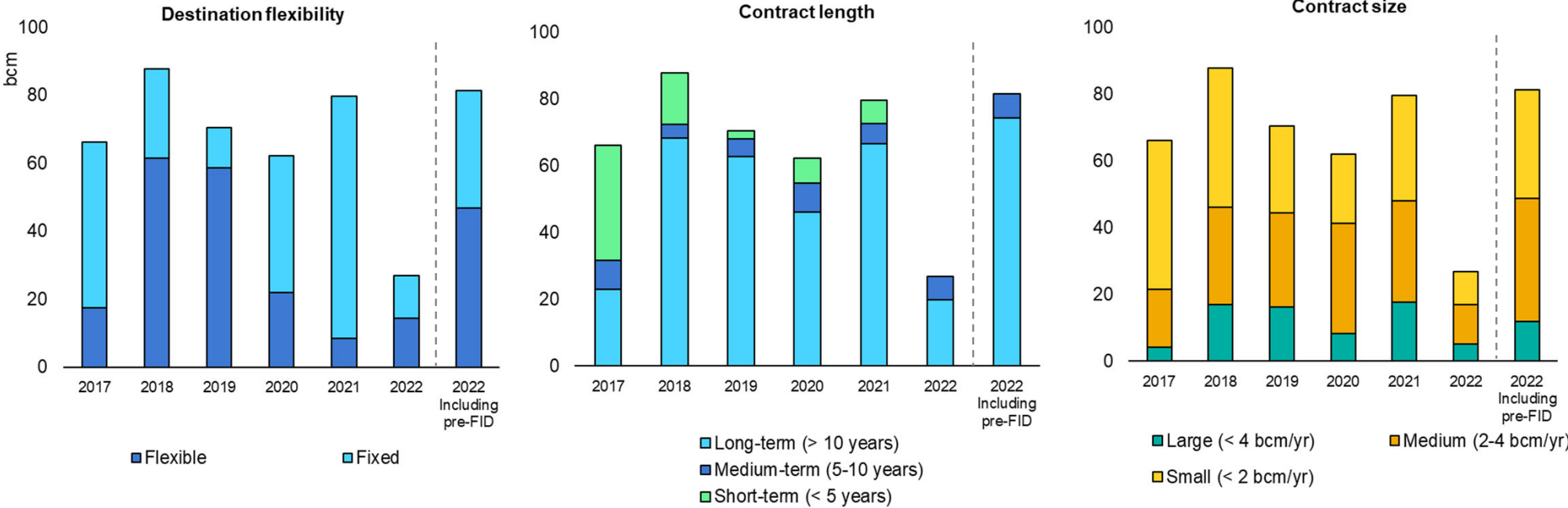
LNG liquefaction capacity additions by regions, 2016-2026



LNG liquefaction capacity additions slow significantly in 2021 to 2024 compared to previous years, raising the risk of prolonged tight market conditions.

# Recent contracting trends present a shift to less flexible LNG supply

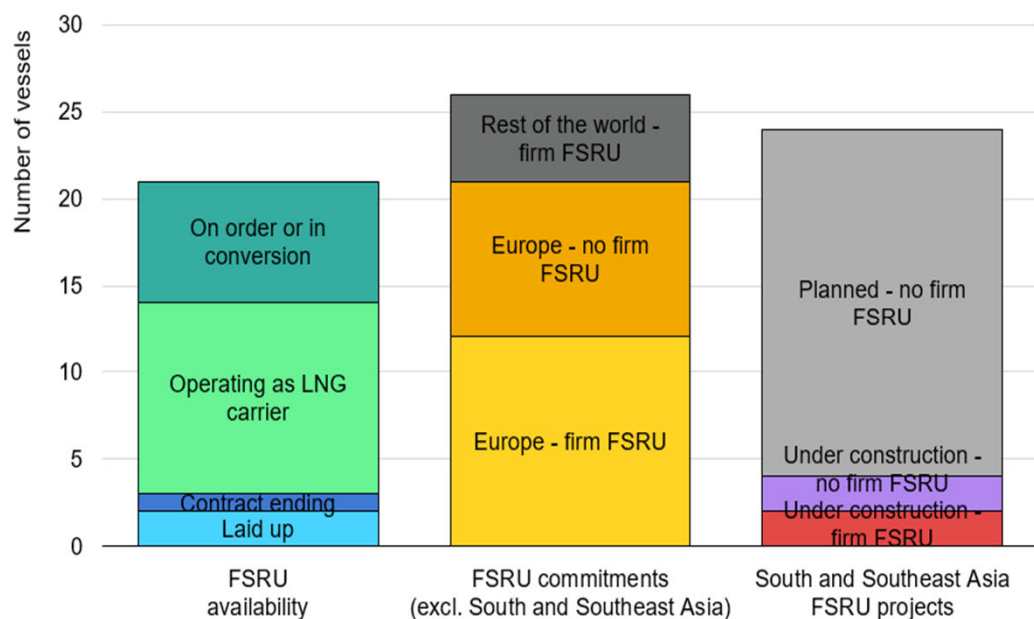
Volume of LNG contracts concluded in each year split by contractual element (2017-2022 to date)



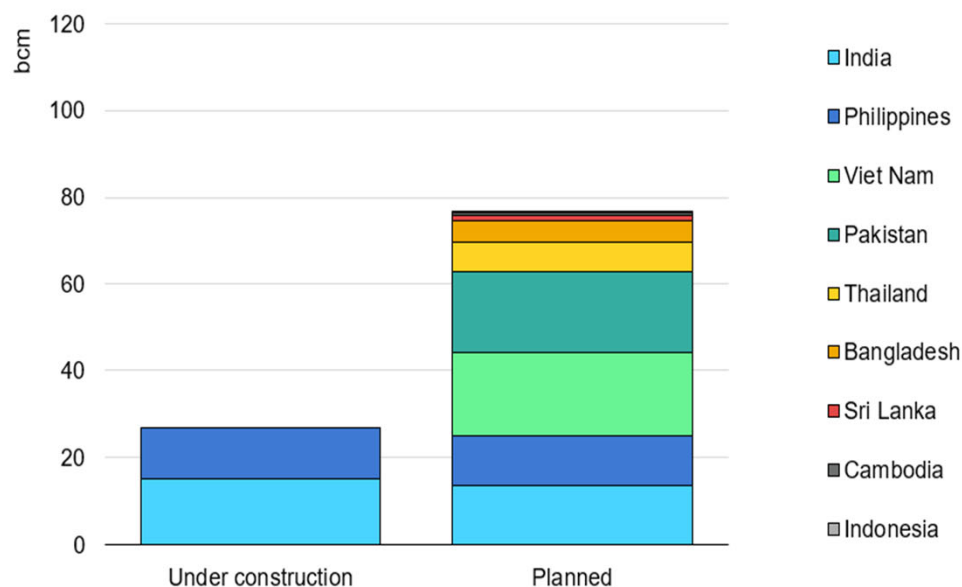
Destination-free contracts, which accounted for almost 80% of the average contracted volumes in 2018-2019, dropped to 35% in 2020 and 11% in 2021.

# Most of the FSRU-based projects are at risk in South & Southeast Asia

FSRU availability and requirements as of August 2022



FSRU projects by status in South and Southeast Asia



Europe's rapidly rising LNG requirement has drawn away not only flexible LNG volumes from Asia, but also the limited number of FSRU vessels available for hire in the foreseeable future.

# Conclusions

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- Global gas consumption is expected to decline by 0.8% in 2022, marked by a 10% contraction in European demand and flat demand growth in the Asia Pacific region.
- Access to alternative supply sources – including LNG – played a key role in offsetting the shortfall in Russian gas supplies to Europe so far in 2022.
- The resulting supply tightness has had ripple effects on the global LNG market, especially for non-European buyers that are strongly reliant on spot LNG procurement and sensitive to high prices.
- The European Union and its member states have taken steps to increase security of supply, through minimum storage obligations, supply diversification and demand reduction measures. In the event of a complete Russian supply cut, gas saving measures will be needed to maintain adequate storage levels to be able to cope with a late-winter cold spell.
- Weak Asian demand, especially in China, has provided most of the relief for the European market so far in 2022. The global LNG market is set to remain tight in 2023 and 2024, due to the limited increase in supply and a possible rebound in Asian LNG imports.
- Governments should consider monitoring even more closely the developments in global, regional and national gas markets as well as the interlinkages with oil, coal and electricity markets in particular.
- The IEA Secretariat stands ready to support such efforts and facilitate cooperation among member countries and with key partner countries.