

THE BALTICS RENEWABLES AND SECURITY

Rene Tammist, Utilitas Wind



1,400 MW
installed heat and
power capacity



2.4 TWh
energy produced



20.5 mln m²
heated buildings

GOAL OF CARBON NEUTRALITY BY 2030



Already achieved: The positive handprint related to producing renewable electricity exceeds the carbon footprint from producing district heating



All Utilitas district heating and cooling networks are efficient district heating systems within the meaning of Energy Efficiency Directive (2012/27/EU)

Sustainable energy solutions that enable to consume energy:

- at any time
- at reasonable price
- while preserving the environment



Utilitas is a provider of district energy solutions, the largest producer of renewable energy in Estonia, and the largest producer of wind energy in Latvia



700 million euros
total assets



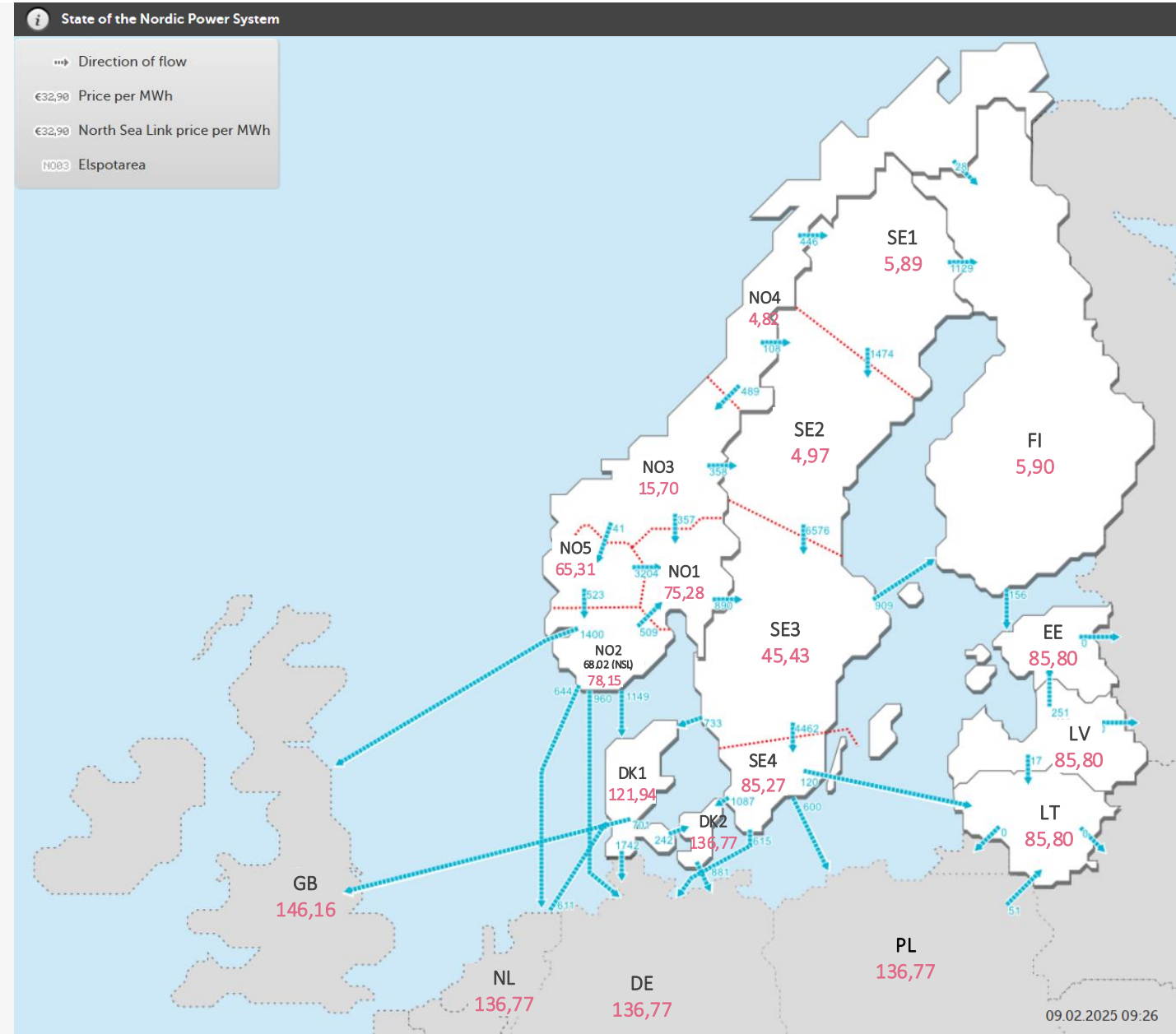
324
employees

113 million euros
investments

226 million euros
operating revenue

ROOM FOR IMPROVEMENTS

- Baltic power grid still needs significant investments into new producing assets
- Local generation covers only 68.2% of the local consumption, equalling 8.7 TWh deficit
- DC Interconnections to Sweden and Finland are utilised more than 80% of average capacity on the import side
- DC interconnection to Poland utilised for import nearly 40%, for export 30%
- Annual power prices have not been below 86 €/MWh since 2020



BALTIC AND POLISH PERSPECTIVE

36,657 MW of total installed offshore wind capacity in Europe

13 countries have offshore wind farms

6,592 turbines installed across Europe

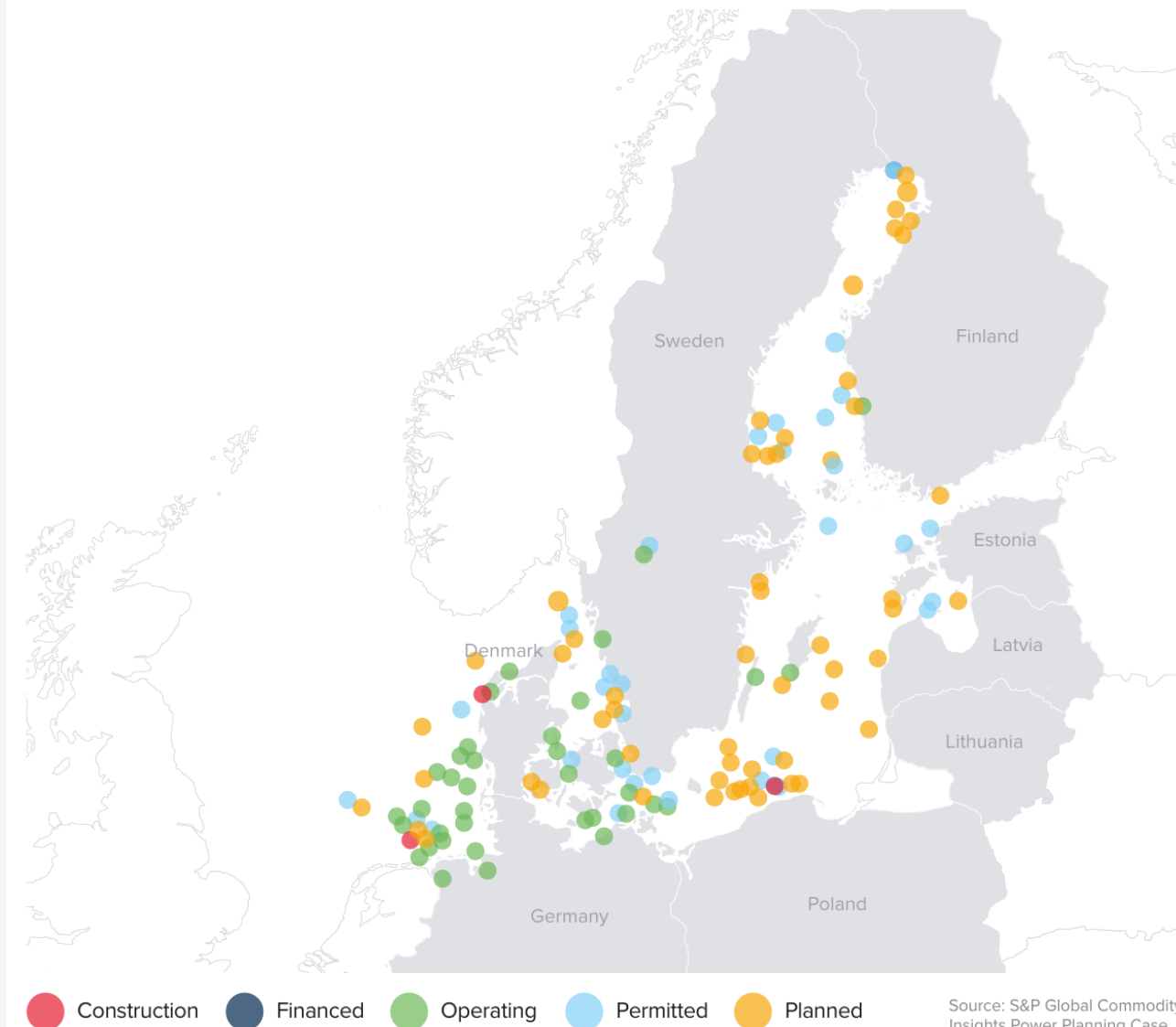
139 wind farms connected to the grid

The Baltic States and Poland have no operational offshore wind farms yet

Source: ORLEN, Baltic Cooperation: Momentum for Energy Transition

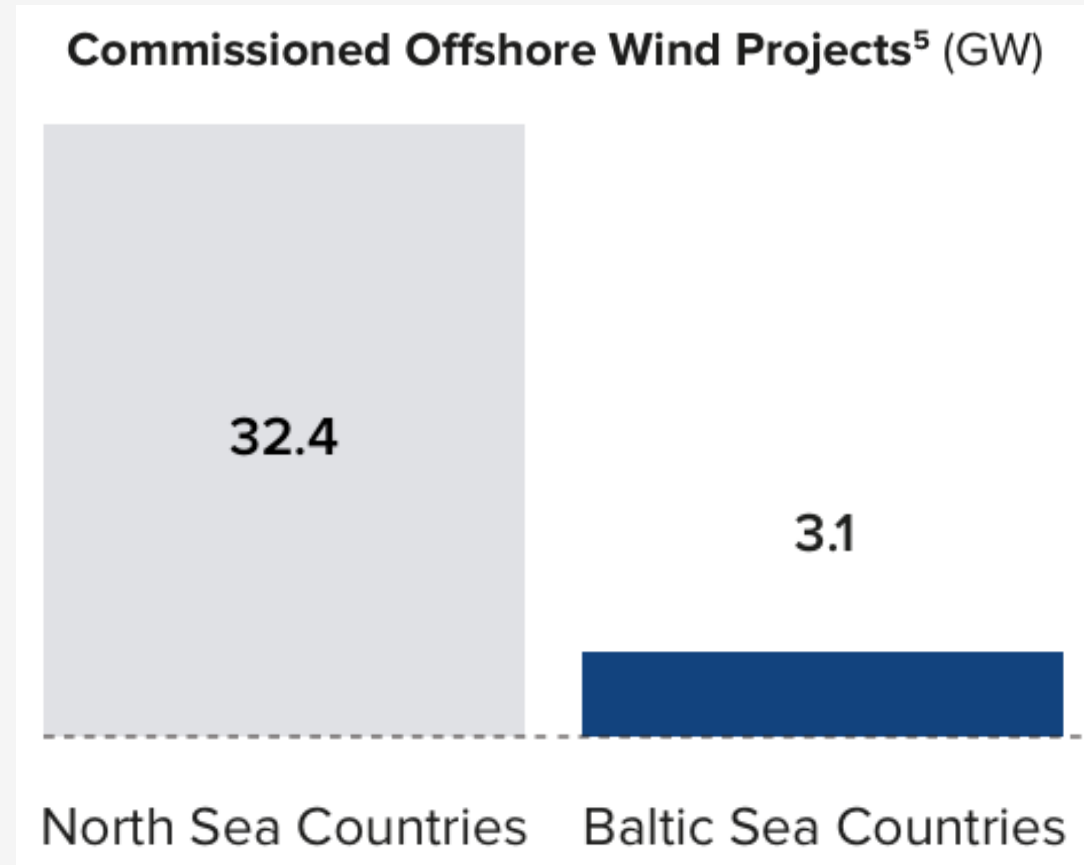
Figure 5

Baltic Sea Countries Offshore Wind Pipeline



Source: S&P Global Commodity Insights Power Planning Case

Despite the Baltic Sea region holding 93 GW of offshore wind potential (as highlighted in the Marienborg declaration) just 3 GW are partially/fully commissioned in the Baltic Sea



Source: ORLEN, Baltic Cooperation: Momentum for Energy Transition

ARE BALTICS SLOW TO ACT?

Whilst all Baltic Sea countries are trying to realise their underlying offshore potential, several key challenges are holding the region back:

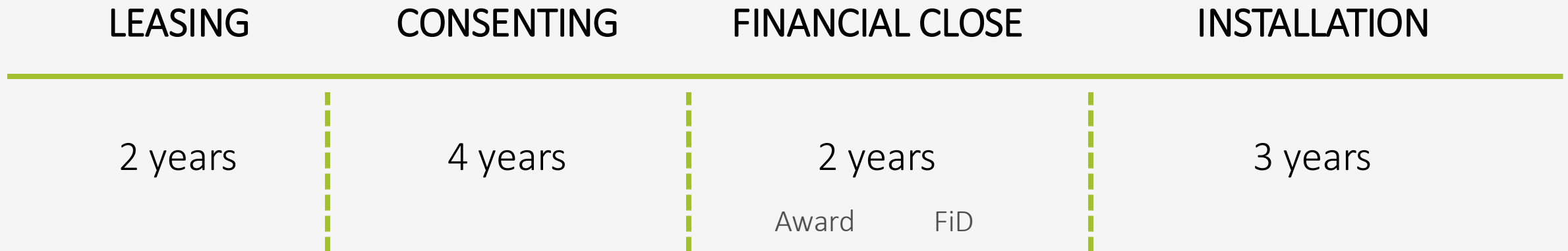
- A lack of integrated maritime spatial planning
- Complex regulations and permitting processes
- Differing or lacking auction structures and support mechanisms
- The cost of financing projects
- A lack of supply chain in the region outside of Denmark, Germany, and Poland



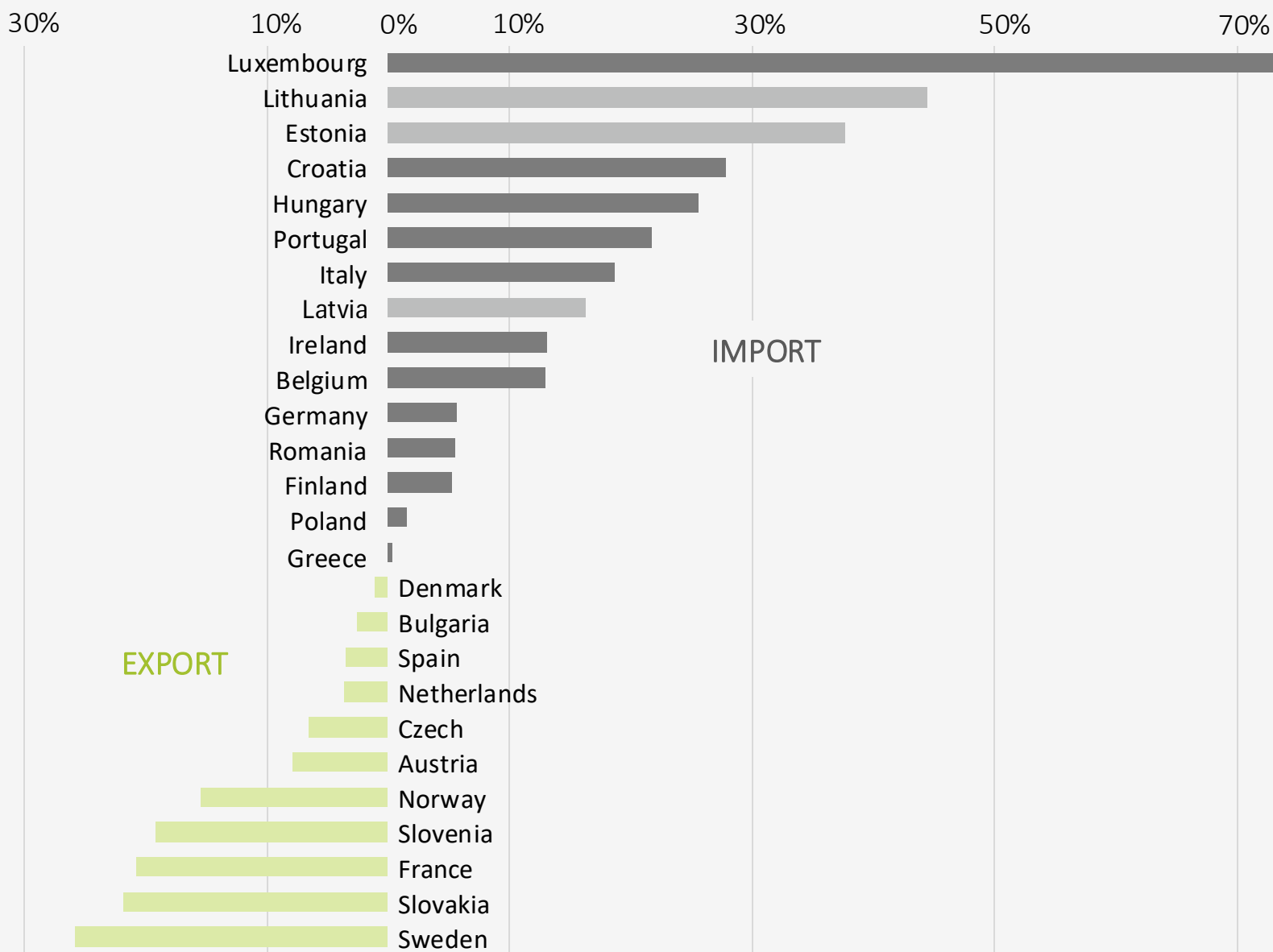
WIND FARM DEVELOPMENT TIMELINE



- Wind farm development is a long-term process involving multiple phases
- Key stages include leasing, consenting, financial close, and installation
- The entire process can take 10+ years before a wind farm is operational
- Streamlining permitting and regulatory procedures is essential to accelerating deployment



ELECTRICITY DEFICIT IN EUROPE



- The European Union imported 62.5% of its total energy consumption in 2022
- Addressing this deficit is crucial for energy security and reducing dependence on imports

ELECTRIFICATION IS DRIVEN BY CHINA

HALF OF THE NEW CARS

sold in China in 2024 were electric vehicles

1.5 MILLION BARRELS/DAY

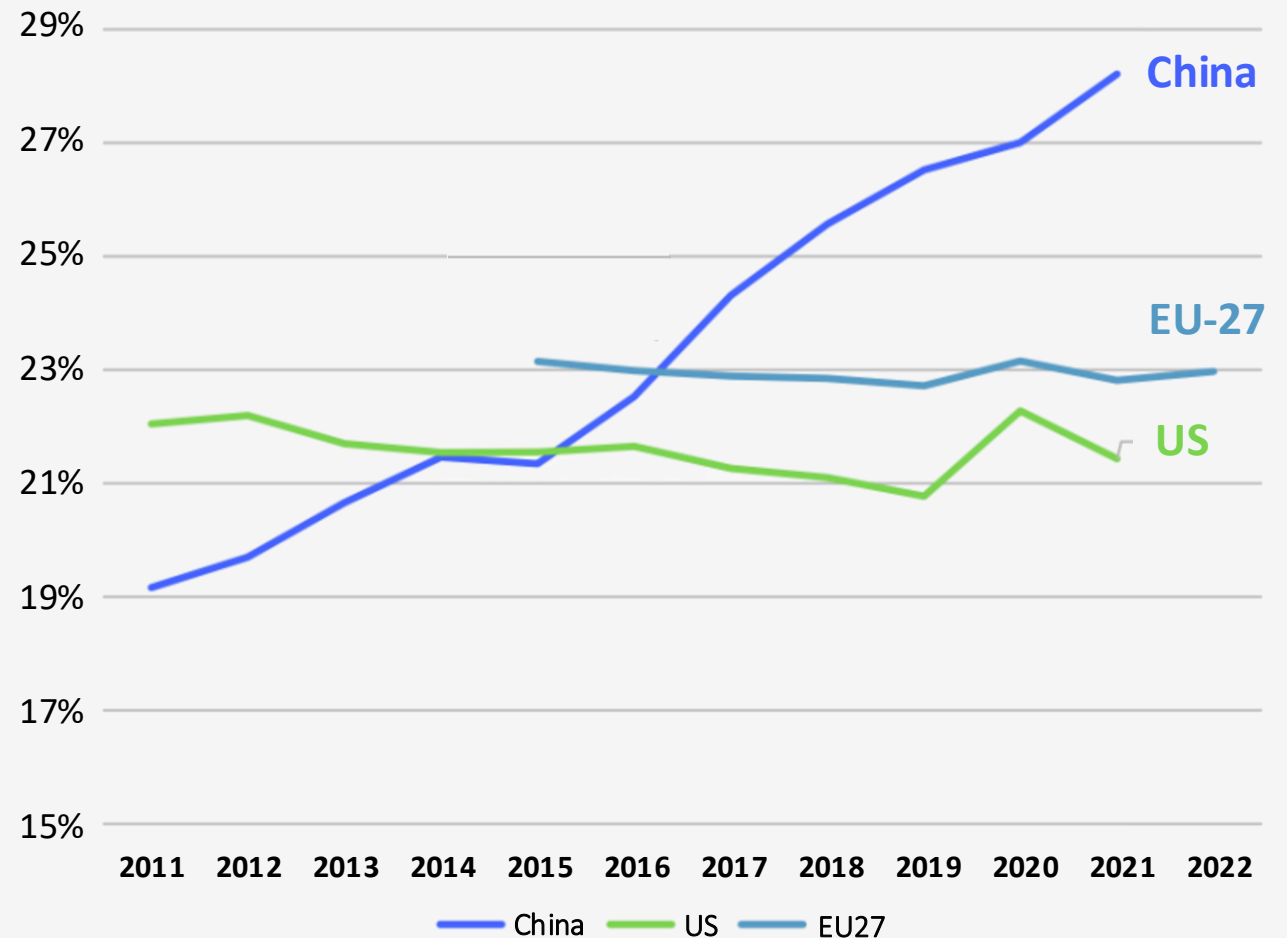
of oil demand are being already displaced by electric vehicles

60-90% OF INDUSTRY

could be electrified in Europe

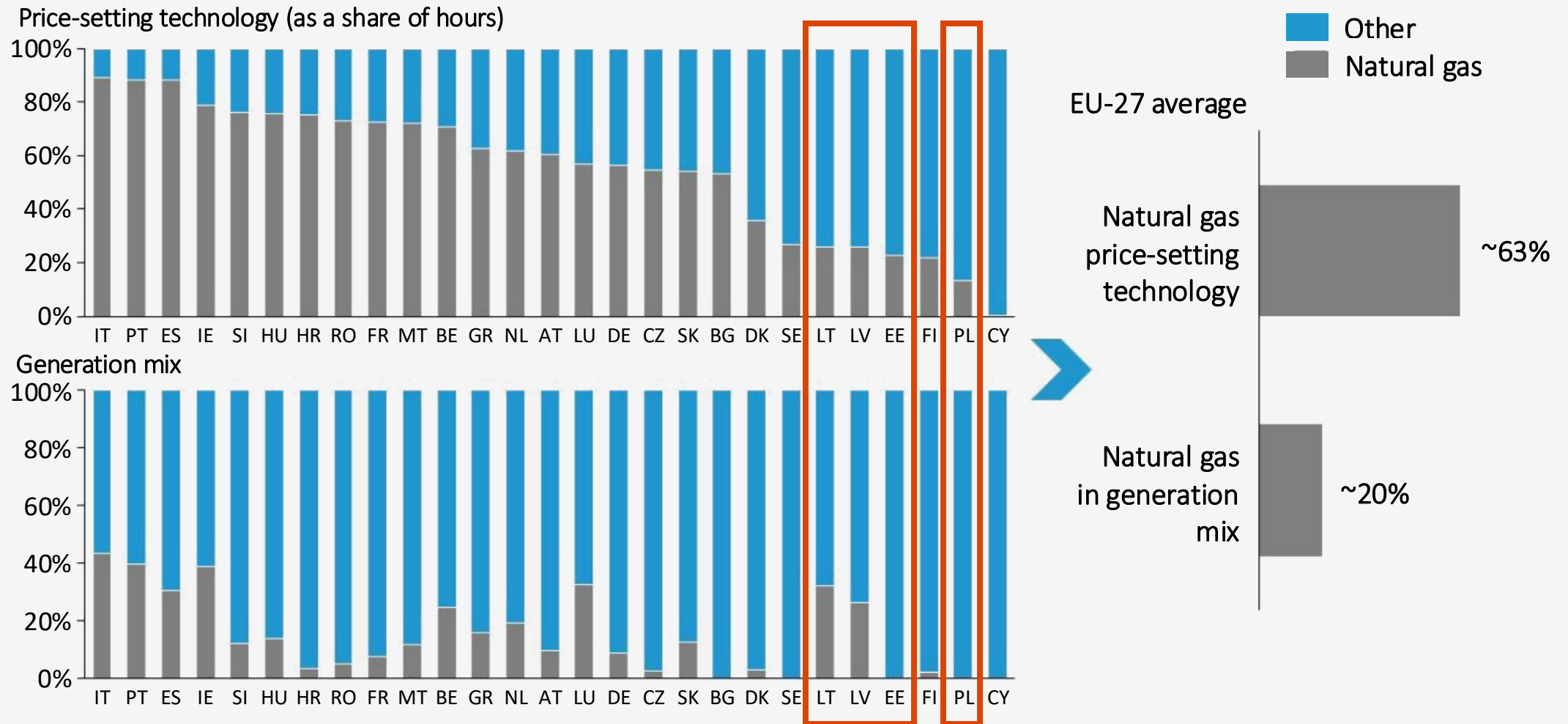
EU electrification stagnating

 Wind
EUROPE



GAS AFFECTS ELECTRICITY PRICES ACROSS EUROPE

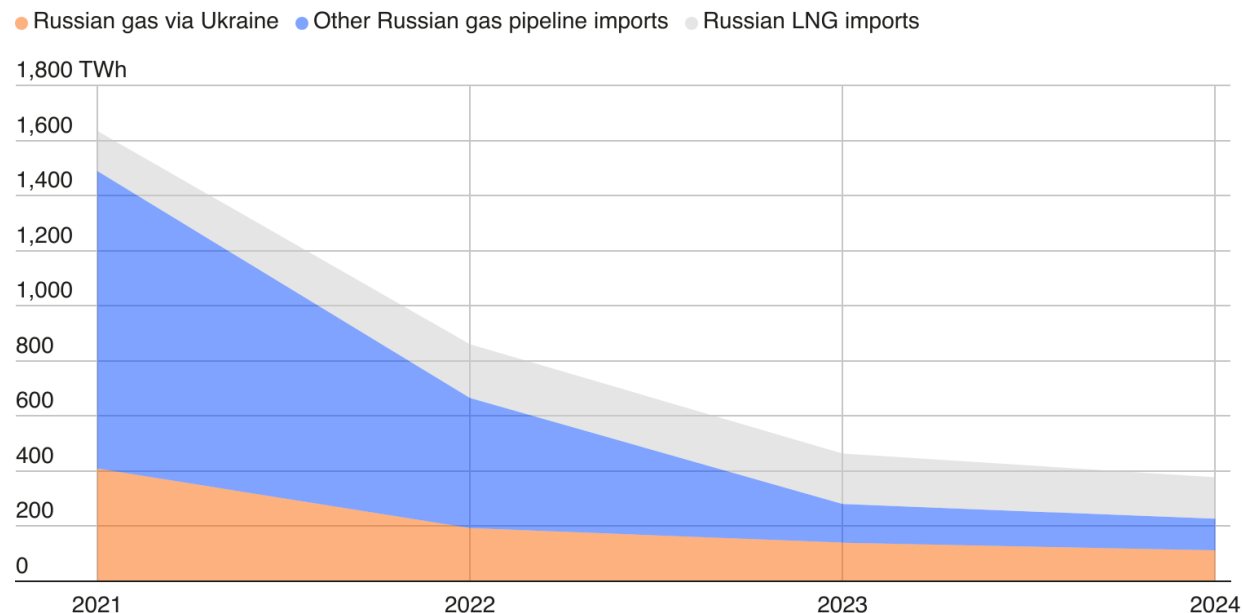
Price-setting technology per Member State and their generation mix %, 2022



DECLINE OF RUSSIAN FOSSIL FUEL EXPORTS TO THE EU

- Russian oil and coal exports to the EU have significantly decreased due to sanctions
- Pipeline gas deliveries have drastically decreased, but LNG imports have remained high
- The EU imported a record 16.5 million tons of Russian LNG in 2024, despite efforts to reduce dependency.
- The shift highlights Europe's ongoing challenges in energy diversification and security

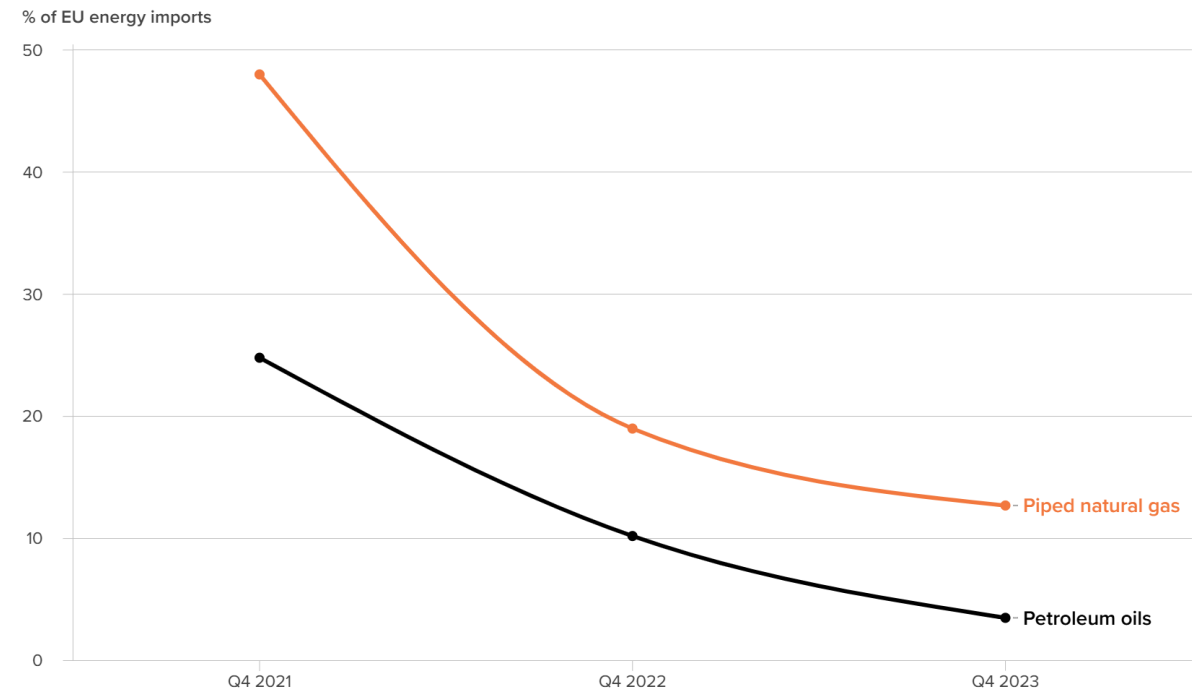
EU gas imports from Russia have fallen sharply since 2021



Note: 2024 reading is only for first eight months of year

Source: Bruegel | G. Hay | Nov. 22, 2024

Russia's share of EU energy imports



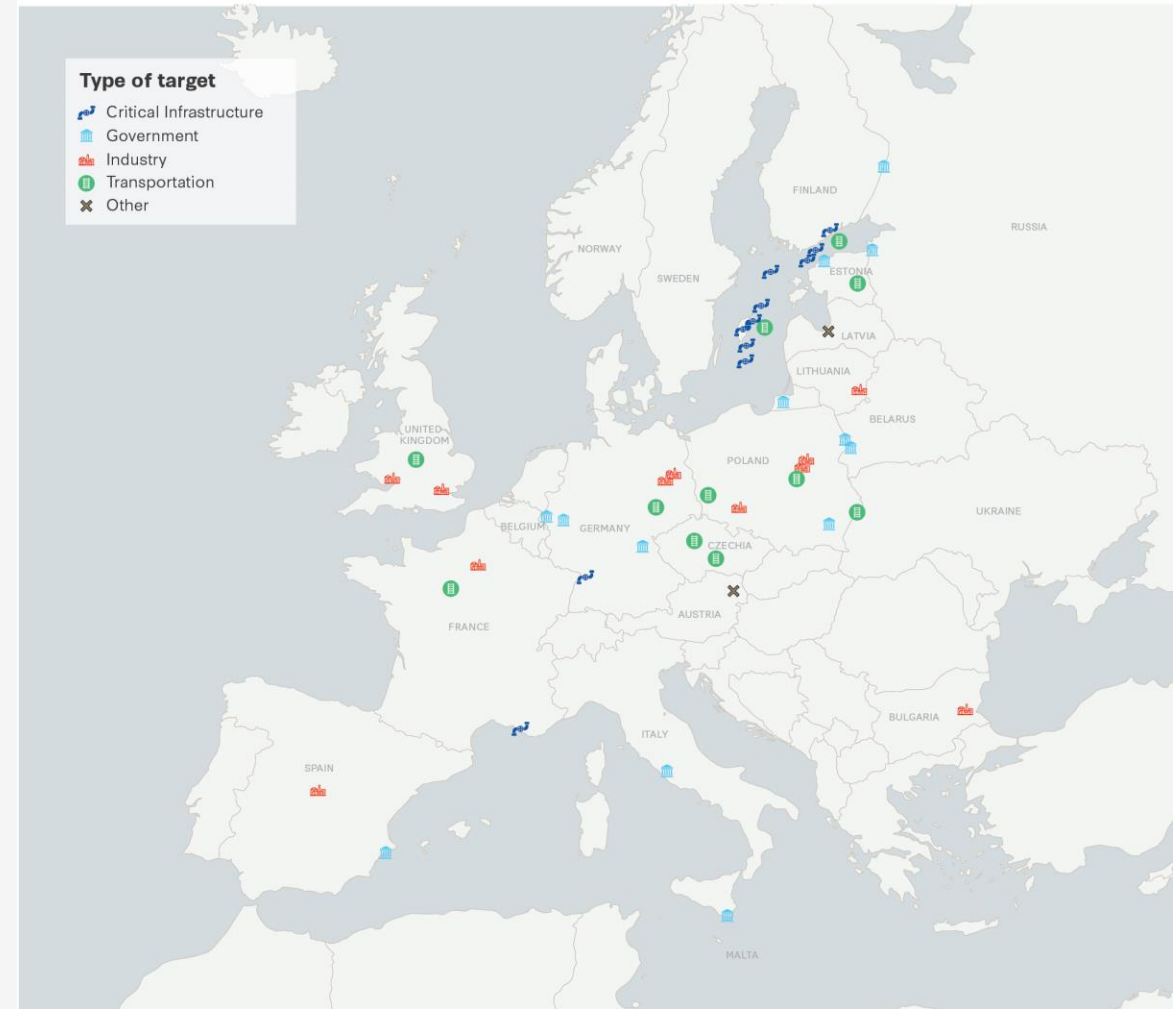
Source: Eurostat

HYBRID WARFARE

Russia conducted attacks throughout Europe, however, the attacks were largely concentrated in NATO's eastern flank, such as Estonia, Finland, Latvia, Lithuania, and Poland, as well as waters like the Baltic Sea

FIGURE 4

Geographic Area of Russian Attacks, 2022-2025

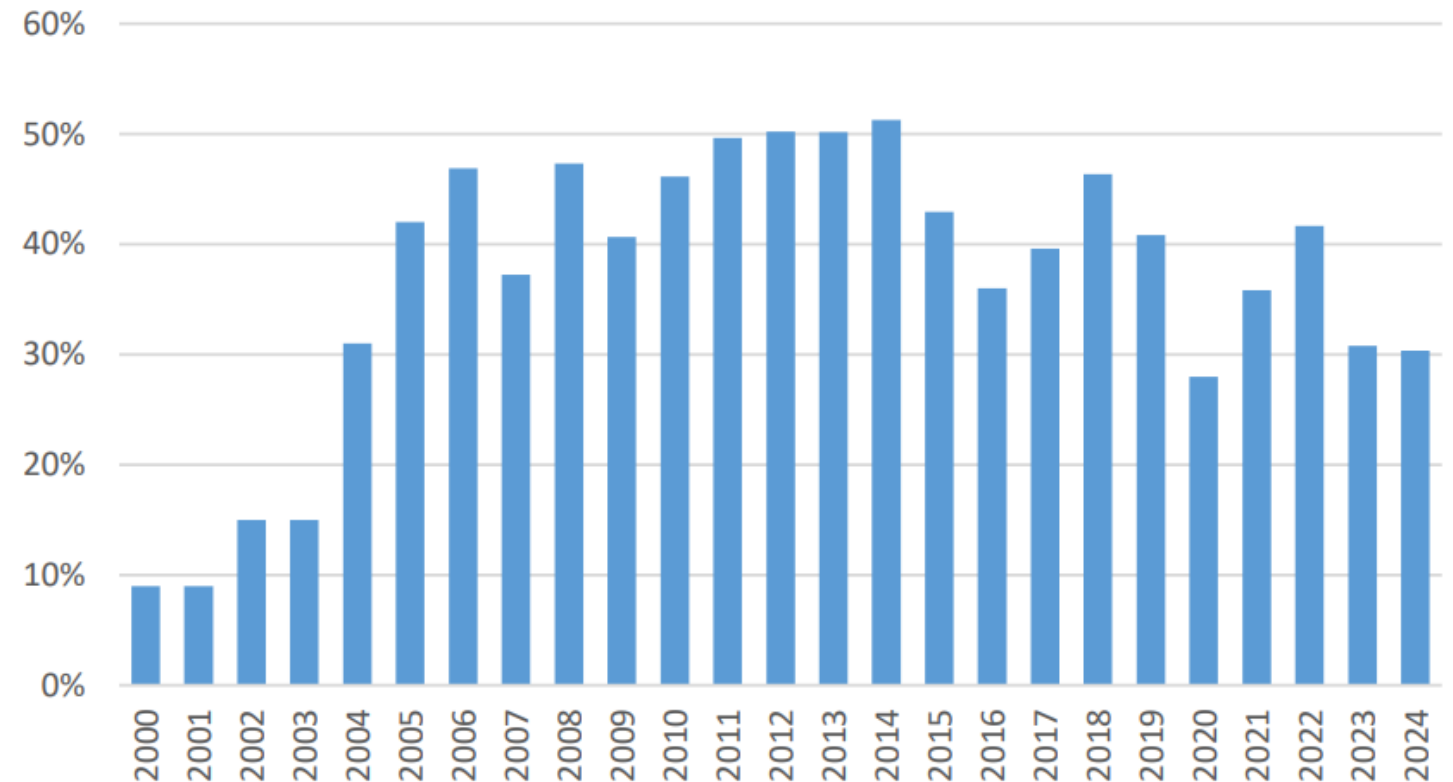


Source: CSIS analysis.

FOSSIL FUEL IMPORT

- Since the beginning of the war, Russia earned EUR 842 billion in revenue from fossil fuel exports. European Union countries purchased for more than EUR 206 billion of these exports
- Since the start of the war, the EU and our Member States have made available close to \$145 billion in financial, military, humanitarian, and refugee assistance

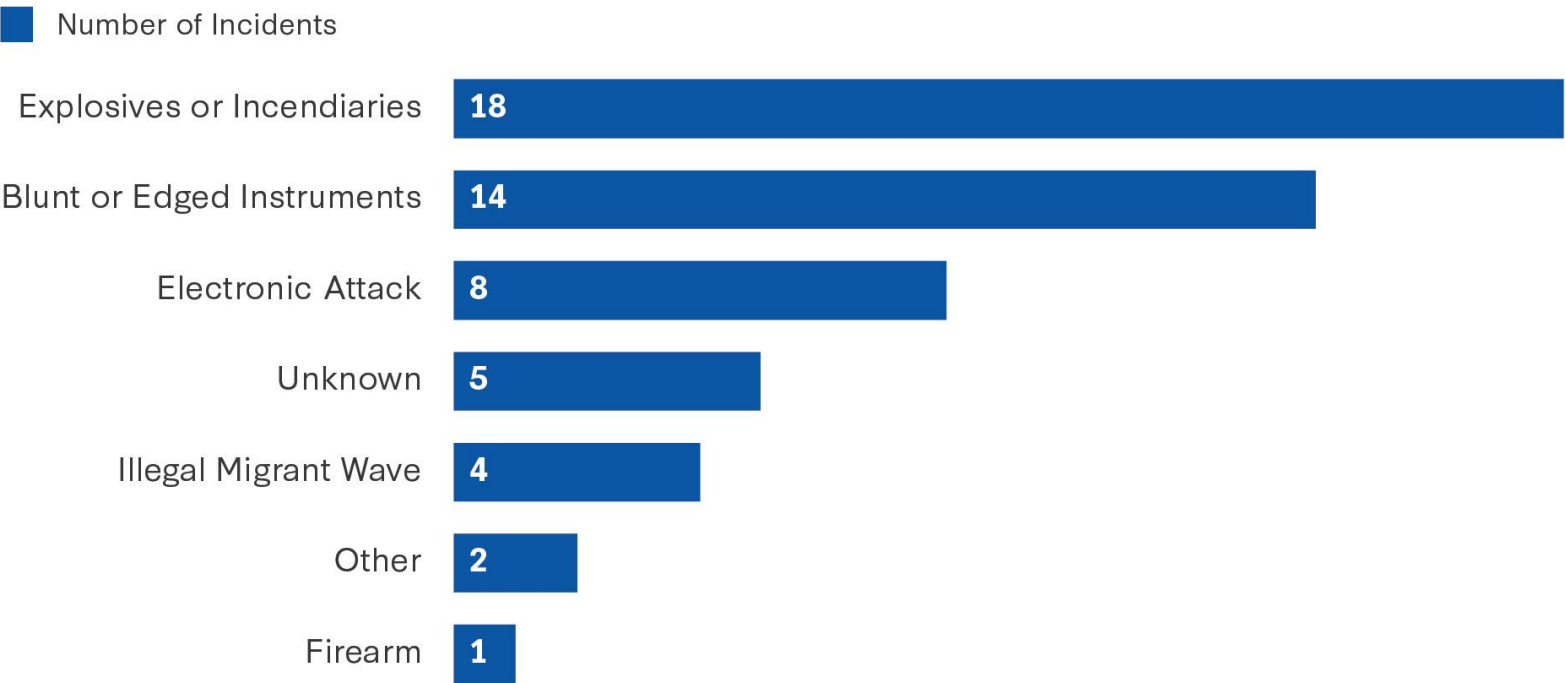
Oil and gas revenues of Russia's federal budget as percentage of total



Source: The Oxford Institute for Energy Studies, Fiscal Flex: Russia's oil and gas revenues in 2024

FIGURE 3

Weapons Used in Russian Attacks in Europe, 2022-2025



- Physical and cyberattacks, disinformation, and sabotage
- Targeting NATO member states and its critical infrastructure
- Aimed at destabilizing democratic institutions and economies
- Increasing use of private sector infrastructure in hybrid warfare

Source: CSIS analysis.

- **Critical infrastructure:** private companies increasingly owns energy, transport, and communications infrastructure
- **Vulnerabilities:** Private sector targets for cyberattacks and sabotage
- **Cooperation:** Strengthening public-private partnerships to improve defense
- **Standardized security frameworks:** For private sector infrastructure
- **Investments:** Encouraging investments through incentives and regulatory frameworks





CLEAN ENERGY
IN CLEAN FUTURE