

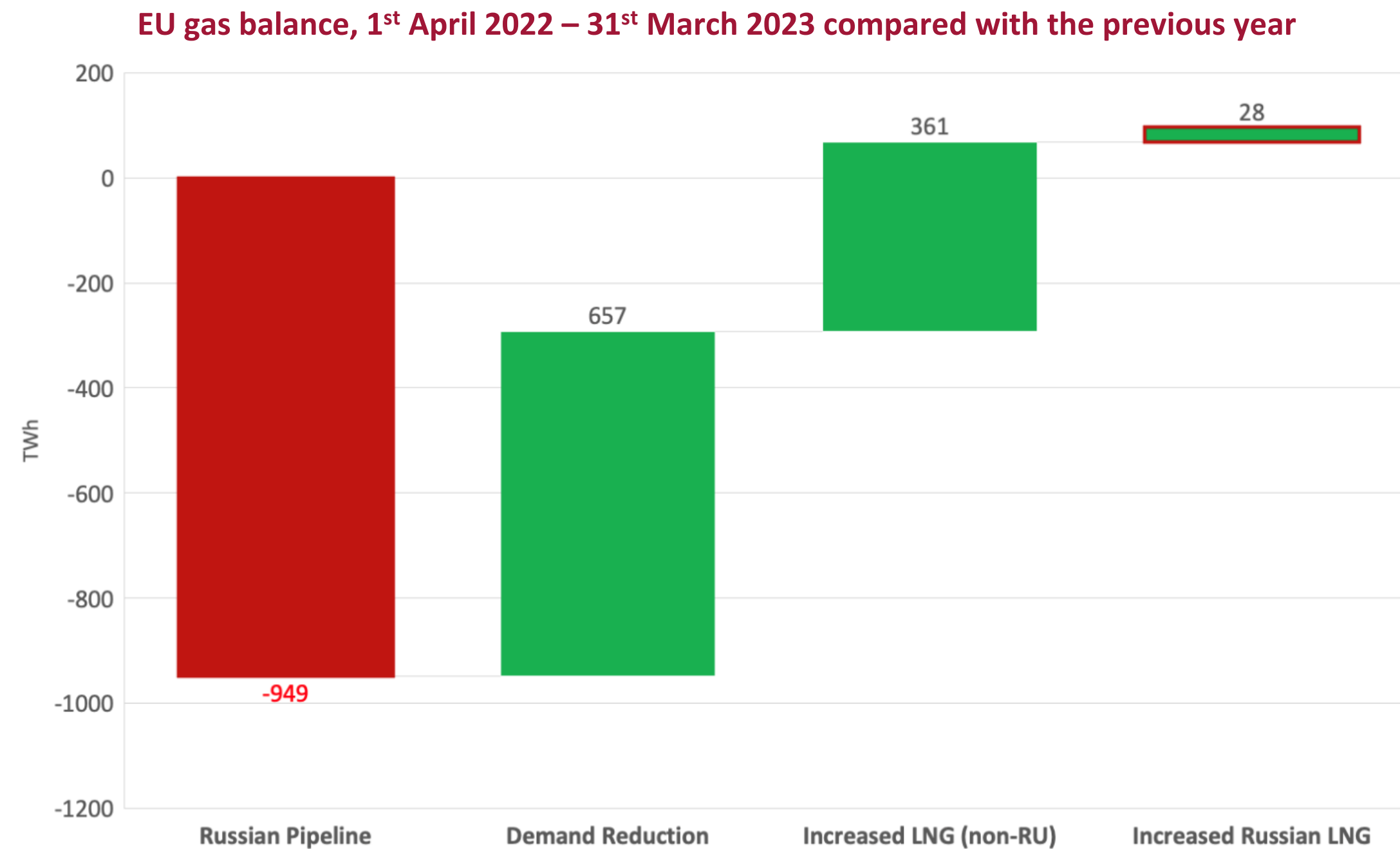
After the great energy crisis: Europe's new landscape

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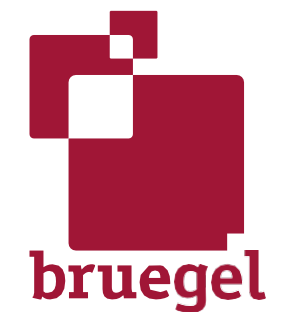
Europe defeated Putin's weaponization of gas supplies

- Russian pipeline exports made 40% of the EU's total gas supply prior to the invasion and today account for less than 10%.
- EU domestic demand reduction and increased LNG imports (namely from US) allowed to manage Russia's gas cuts.
- Behind the US, Russia remains the 2nd largest supplier of LNG to EU, accounting for 16% of LNG supply and 7% of total gas imports.
- EU could live without Russian LNG, but preparations are necessary (e.g., keep EU gas demand reduced by 15%; ensure alternatives, namely for the Iberian peninsula).

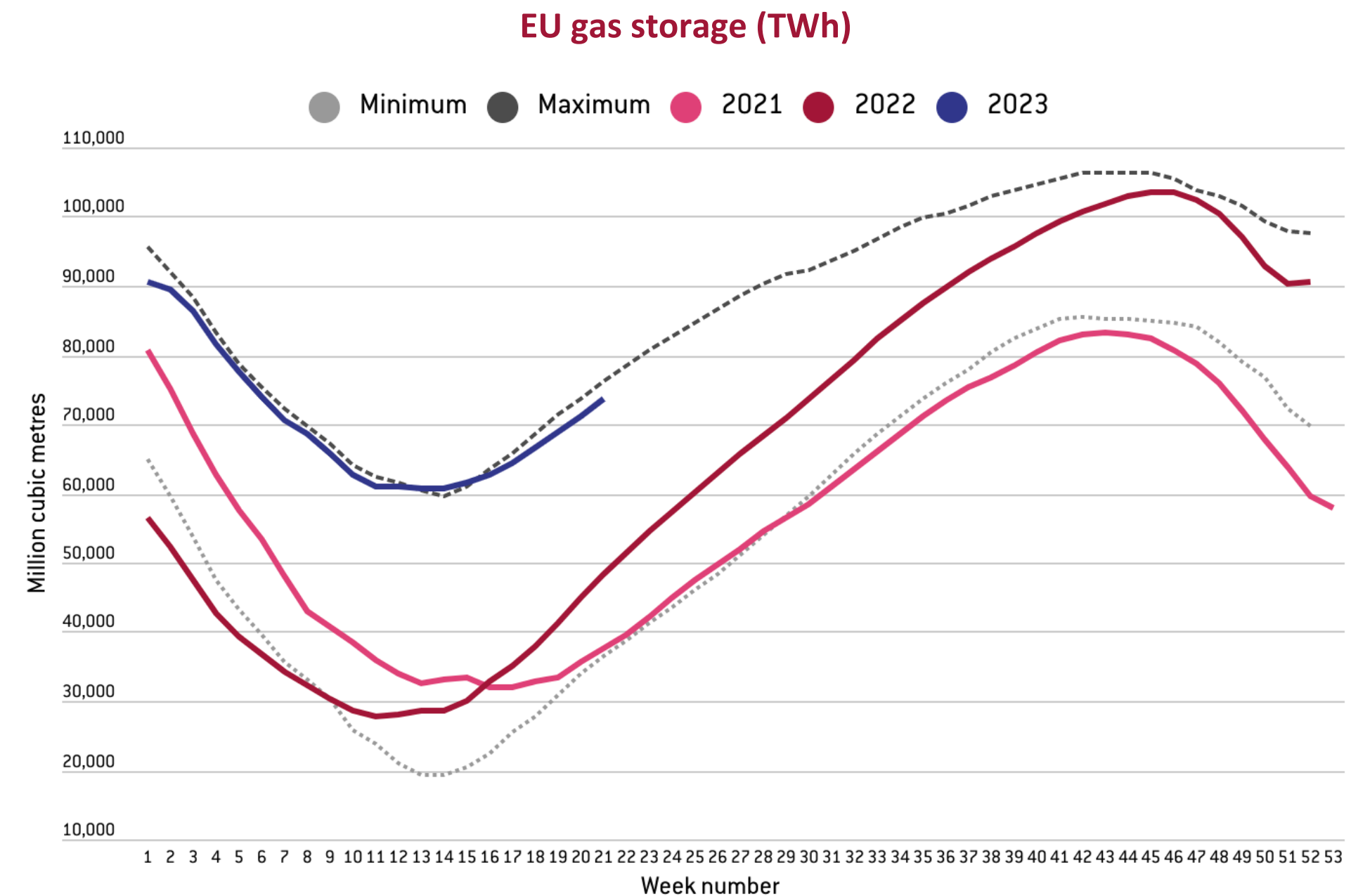


Source: Bruegel

Elements for a safe winter ahead are in place, but prudence is due



- Agreement to extend EU demand reduction (15%) until October 2023.
- Storage levels are good (70% now) and refilling smoother this year.
- LNG is key. Encouraging that Freeport LNG is back: with a capacity of 200 TWh/year, it exceeds total Russian LNG exports in 2022 (see next slide).
- Electricity balances look stronger for the coming year: annual deployment of wind/solar, gradual return of French nuclear, hopefully better hydropower output.
- But markets remain tight and volatility can always resume.



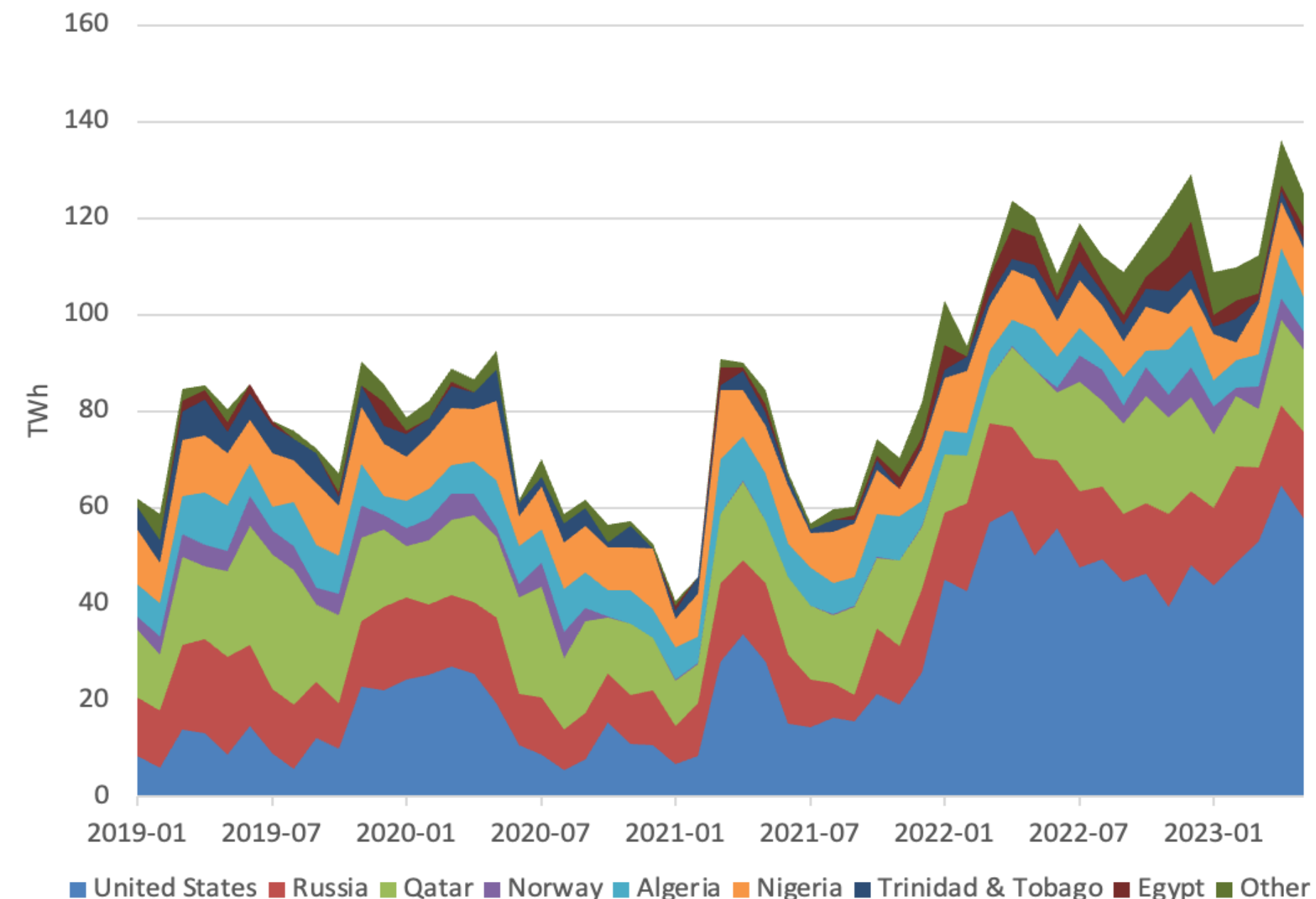
Source: Bruegel

US LNG now is a central pillar of EU gas security of supply



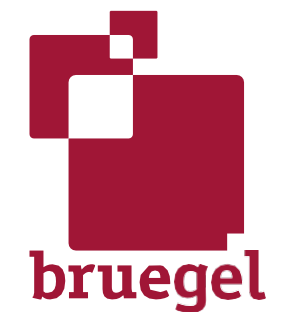
- US LNG imports have become critical for the EU to maintain a healthy gas balance without Russian pipeline gas.
- US LNG now covers 50% of EU total LNG imports - and around 20% of EU total gas imports.
- US LNG will remain essential for the coming years, especially in a scenario where the remaining volumes of Russian LNG and/or pipeline gas are cut.

EU LNG imports by source country (TWh)

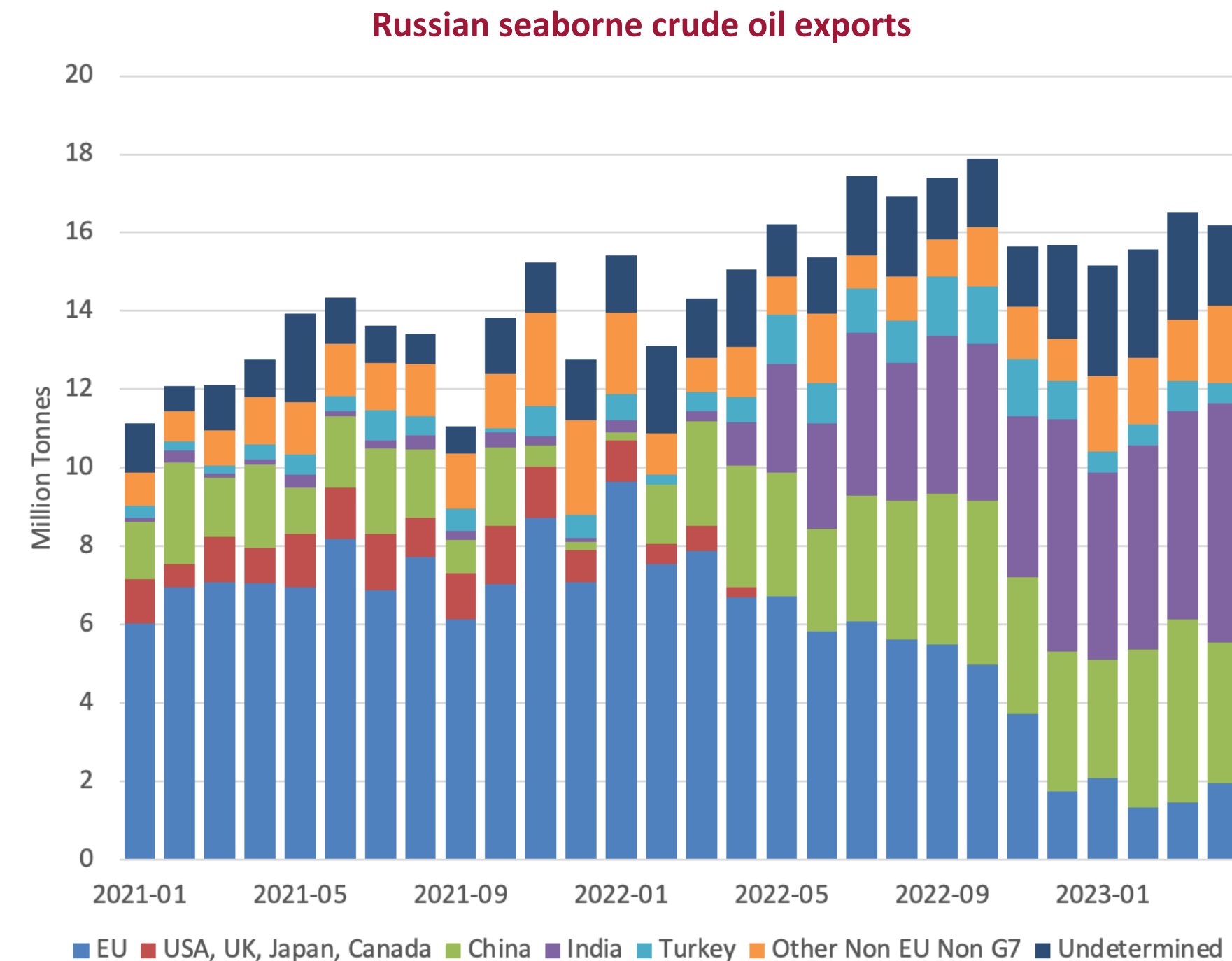


Source: Bruegel

Europe has also managed to implement a difficult oil embargo

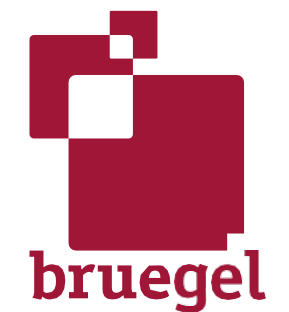


- Pre-embargo, EU imported from Russia 25% of its crude oil and 40% of its road diesel.
- In the 1st year after invasion, EU paid Russia €53 billion for crude oil, and €30 billion for oil products. Embargo should take volumes to 10% of that (i.e., around €8 billion).
- Price-cap has facilitated re-routing to India and China, but issues remain:
 - Price cap not always respected (especially from Russia's eastern ports);
 - Side payments (insurance, transport premiums);
 - Political attention in EU is growing concerning import of oil products that were refined from Russian crude (e.g., via India).



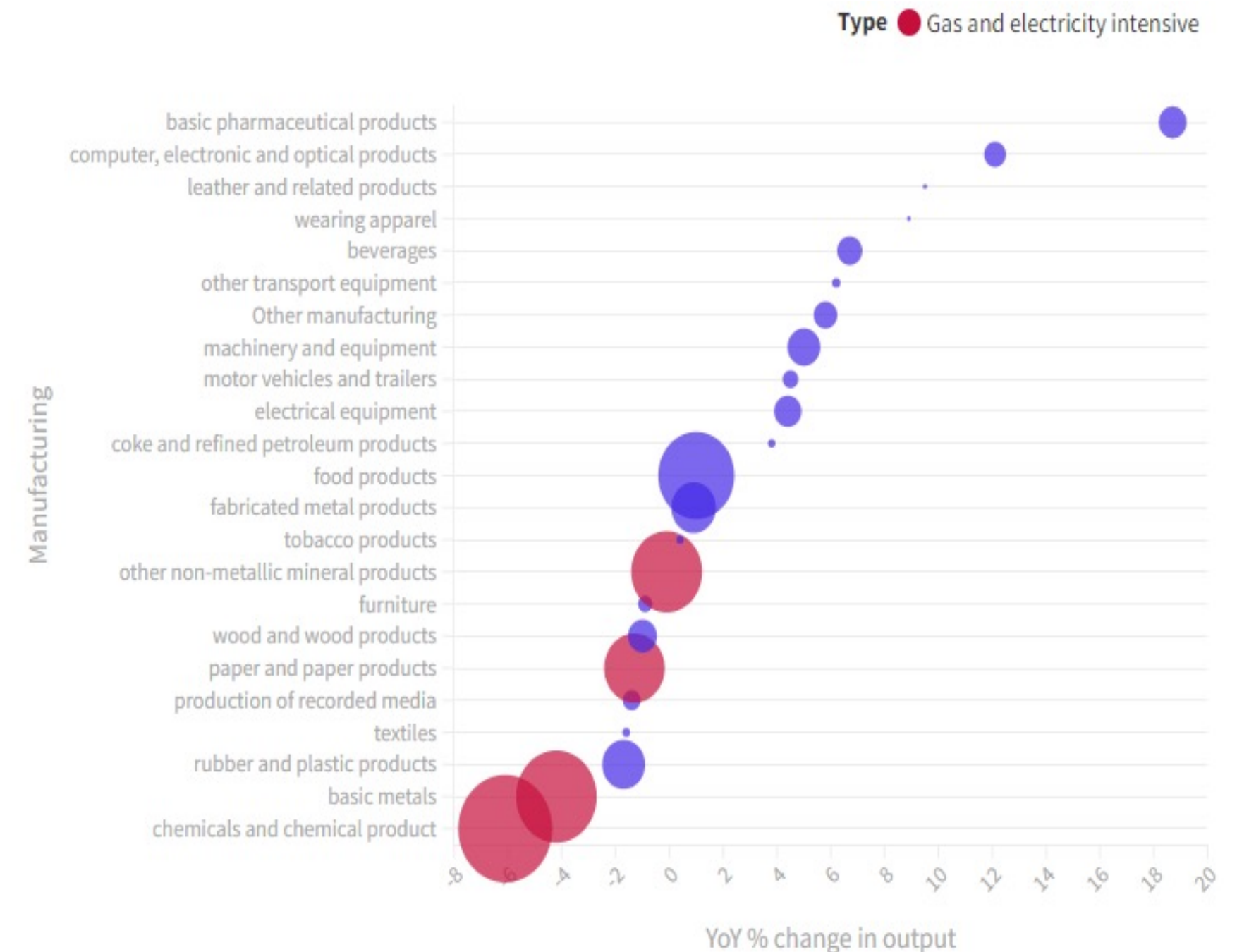
Source: Bruegel

Europe's industry was resilient to the shock – but questions loom



- Y-o-Y (2022 Vs 2021) EU manufacturing output increased by 3.8% and employment by 1.3%.
- This was achieved with energy efficiency, fuel switching, higher imports of energy-intensive products and some reallocation of industrial activity (chemicals, basic metals, paper and cement took the hardest hit).
- Moving forward, gas in Europe will likely be x4 more expensive than in the US, versus x2 before the crisis. This also puts an upward pressure on the cost of electricity in the EU. This represents a major source of concern for EU industrial competitiveness.

Y-o-Y (2022 Vs 2021) change in EU manufacturing output by sector

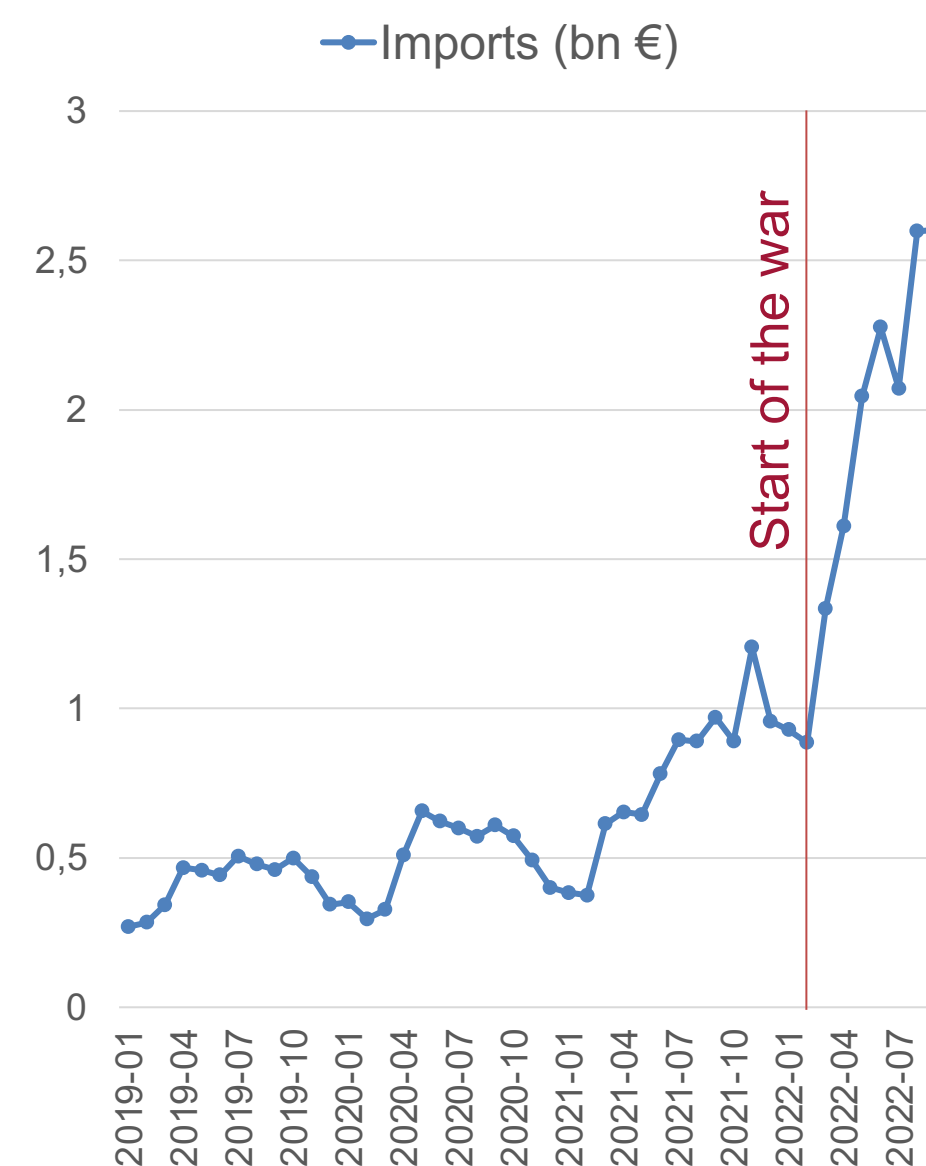


Source: Bruegel

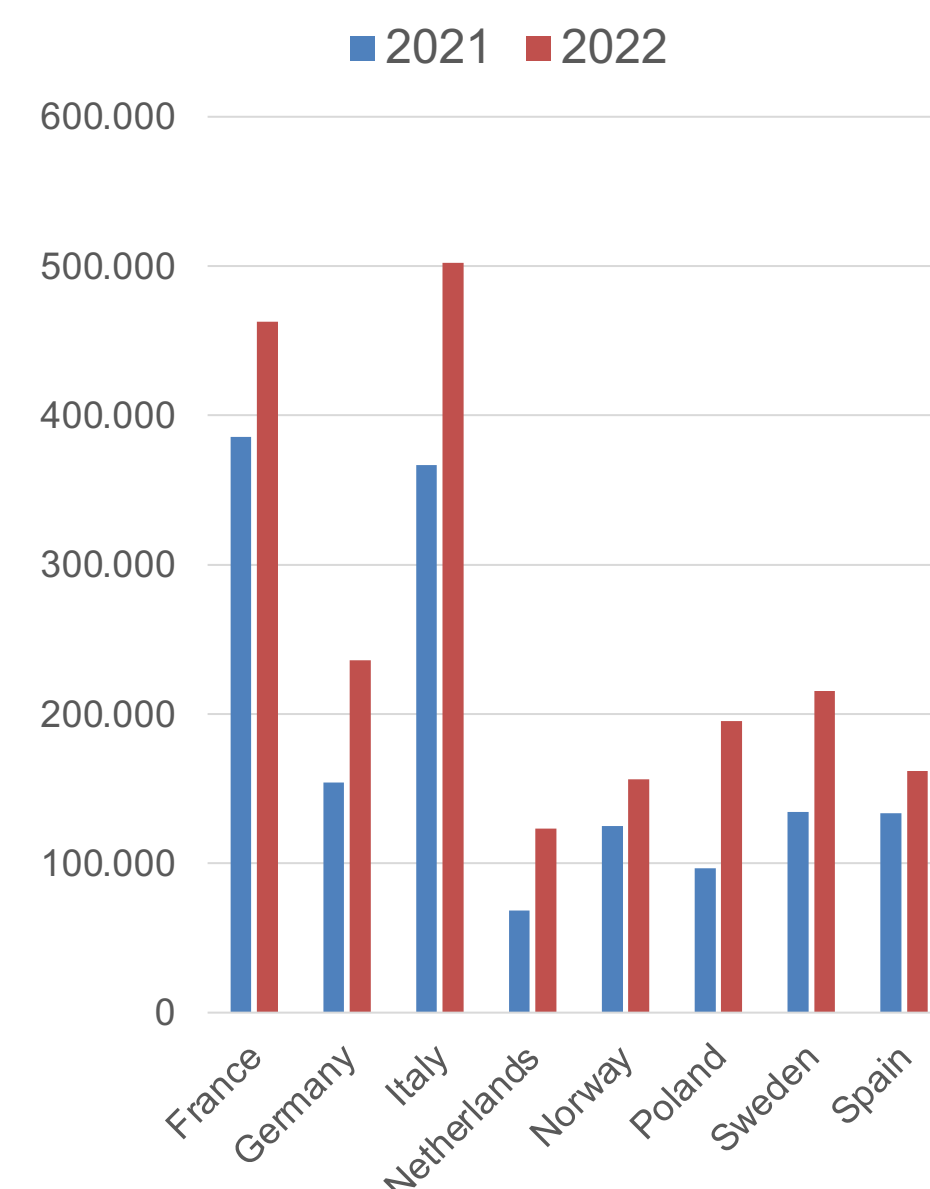
Energy crisis is an accelerator of Europe's green transition

- High energy prices led to a sharp acceleration of green alternatives in 2022, from solar panels (+25% Y-o-Y) to heat pumps (+48% Y-o-Y). Families and businesses understand these are key remedies to protect from volatile fossil fuel prices.
- Policies adopted at both the EU and national levels support this trend and will yield further results.
- REPowerEU (aimed at cutting dependence on Russian fossil fuels by 2027) focuses on EE and RES (45% of final energy consumption by 2030 – up from 22% today). How? Key focus on permitting streamlining.

EU imports of solar panels from China

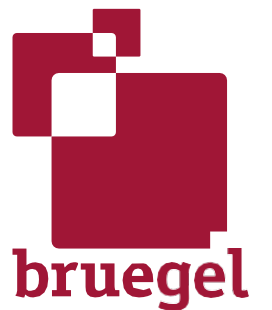


Heat pumps sales in selected countries



Source: Bruegel

Notwithstanding the 2022 shock, EU managed to approved CBAM



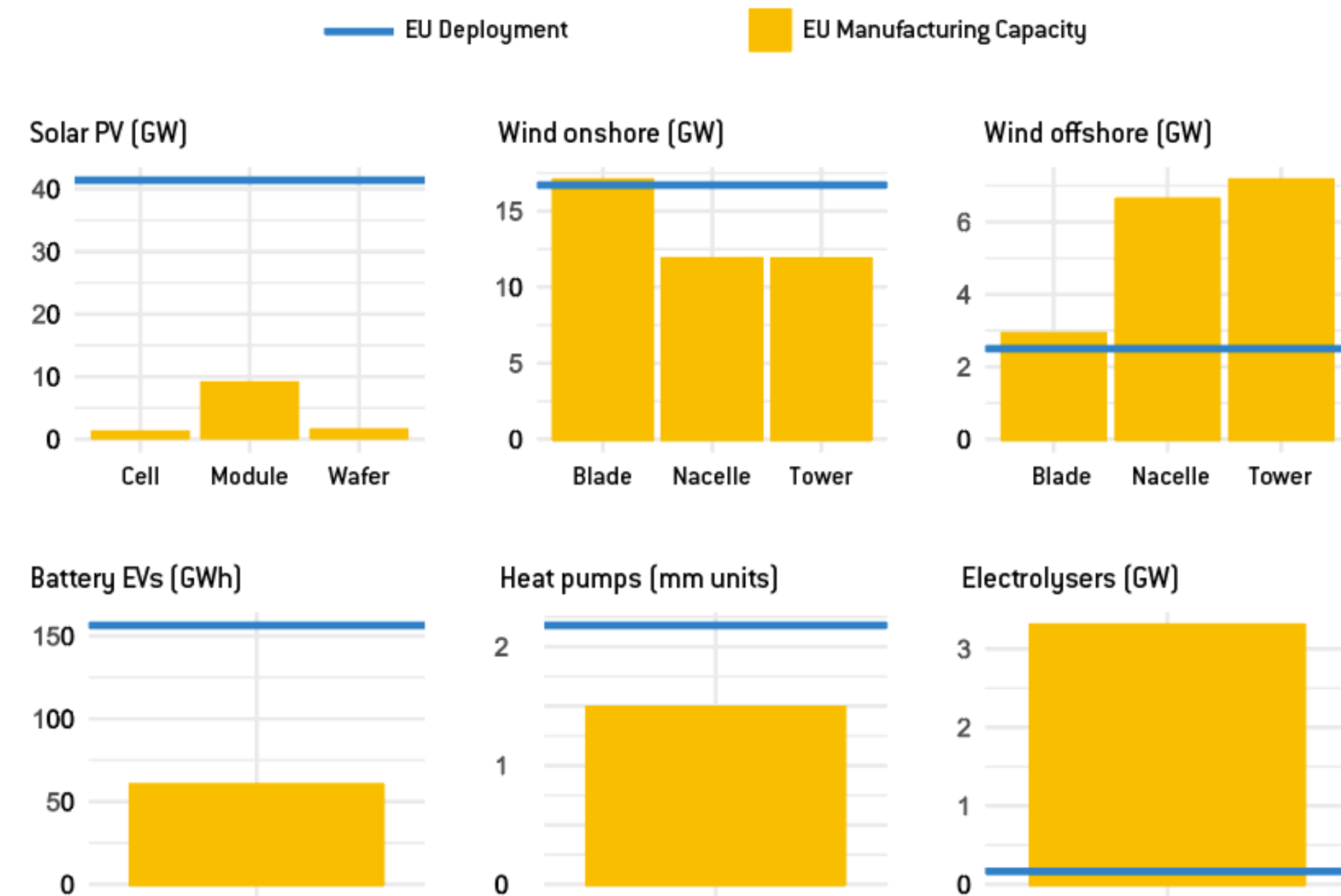
- Climate policies are heterogeneous. Jurisdictions with strong carbon pricing systems need to prevent carbon leakage and free-riding from low-ambition countries. The EU is just the first to face this, others will follow.
- CBAM transitional - pilot and learning - period: 1 October 2023 – 31 December 2025.
 - Limited coverage: cement, iron and steel, aluminium, fertilisers, electricity, hydrogen (3% of imported goods, 50% of emissions covered by ETS).
 - Importers of these goods will only have to report GHG embedded in their imports, without making any payments.
 - A review will be done to assess the functioning of the system and explore the feasibility of expanding its sectorial coverage to other ETS sectors.
- Entry into force of CBAM permanent system: 1 January 2026.
 - EU-based importing companies to declare each year the quantity of goods imported into EU in the preceding year and their embedded GHG.
 - They will then surrender the corresponding number of CBAM certificates, the price of which will reflect that of EU ETS allowances.
 - Phasing-out of free allocation under the ETS will take place in parallel with the phasing-in of CBAM in the period 2026-2034.
- Limited impacts on trade with the US
 - US not substantially impacted by CBAM, as only a small share of its exports to EU are interested - notably steel and aluminium.
 - In these sectors, US is in any case well positioned as it is more carbon-efficient than other countries.
 - Exempting US steel and aluminium from CBAM might constitute a breach of WTO rules (most favoured nation rule) and weaken CBAM.
 - EU-US Trade and Technology Council of March 2023 agreed to keep negotiating Global Sustainable Arrangement for Steel and Aluminum.

Economic security and clean tech is now driving the EU agenda



- Pandemic and Ukraine war pushed economic security at the top of EU policy agenda. New strategy out on June 20.
- Challenge #1: what balancing act between economic efficiency and resilience?
- Challenge #2: who pays the security premium?
- EU principles: commitment to open trade; de-risking rather than decoupling; international partnerships.
- Industrial policy at the core: NZIA, CRMA.
- What role for US-EU cooperation in clean tech and decarbonisation in the Global South?

EU cleantech manufacturing capacities and domestic deployment levels in selected technologies, 2021-2022



Source: Bruegel

Thank you!

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