

**27<sup>th</sup> NATIONAL ENERGY CONFERENCE**  
**“Energy & Development”**  
**Athens, 14-15 November 2023**

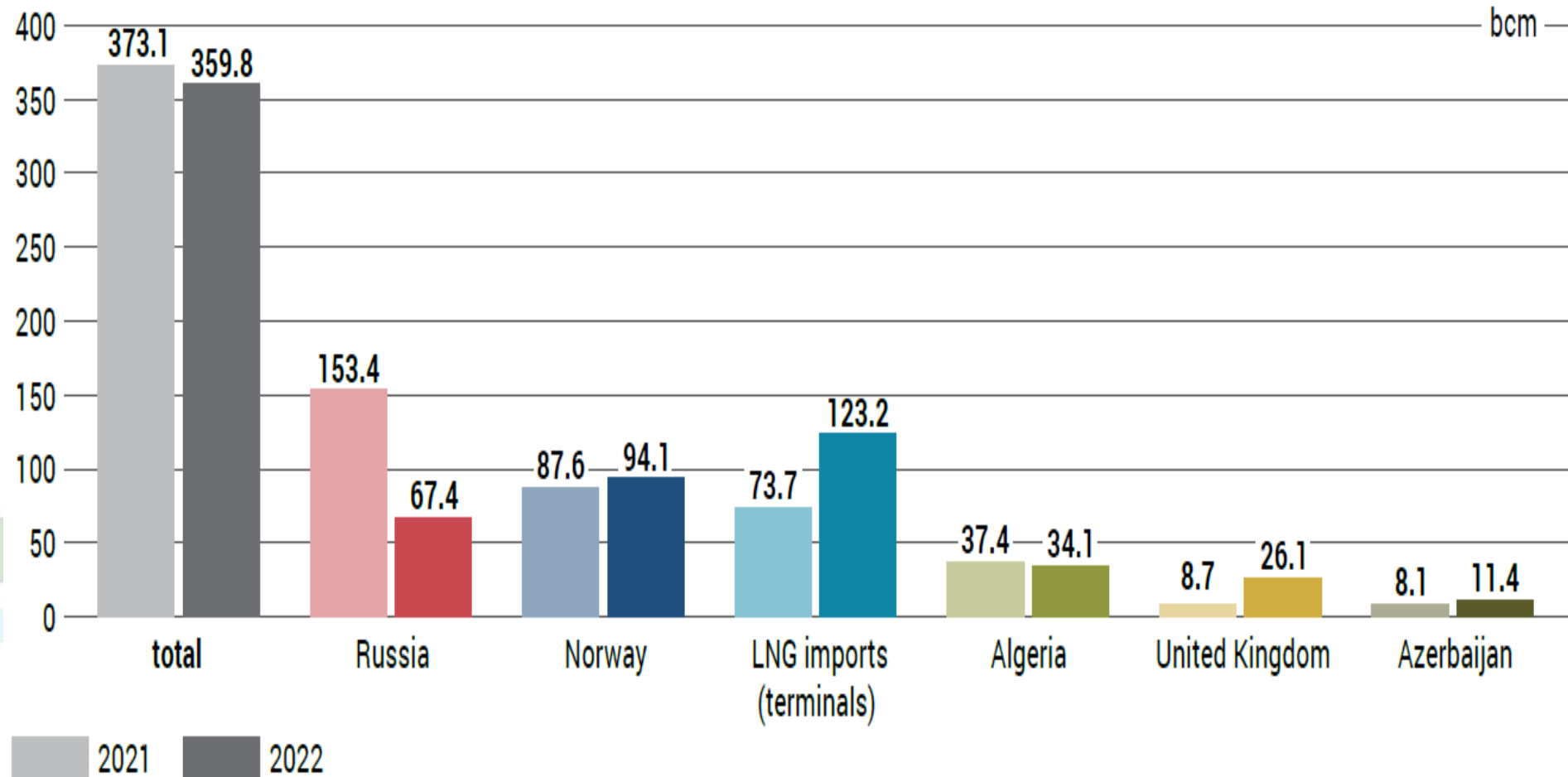
***“Establishing a Renewable and Low-carbon Gas  
Traded Hub in SE Europe & Eastern  
Mediterranean”***  
***A first-class opportunity for Greece***

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- Geopolitics and climate change policies have resulted in:
  - ✓ greater uncertainty, slower growth, and higher liquidity as well as rump up of the RES use
  - ✓ faster phase out of fossil fuels to achieve quicker GHGs reduction
  - ✓ urgent deployment of innovative green and zero-carbon technologies
- Particularly Europe (including our region), after Russia's invasion of Ukraine in 2022, entered a severe energy crisis faced:
  - ✓ extremely high gas (and electricity) prices
  - ✓ high gas imports uncertainty
  - ✓ massive LNG imports mainly from the US (70% up in 2022)
  - ✓ gas demand destruction along with energy efficiency measures
  - ✓ urgent shift to greener energy sources, including renewable and low-carbon gases
- Thus, the fragile energy security and high energy costs threaten the competitiveness of the European economy and standards of living of citizens, while undermine also a smooth energy transition

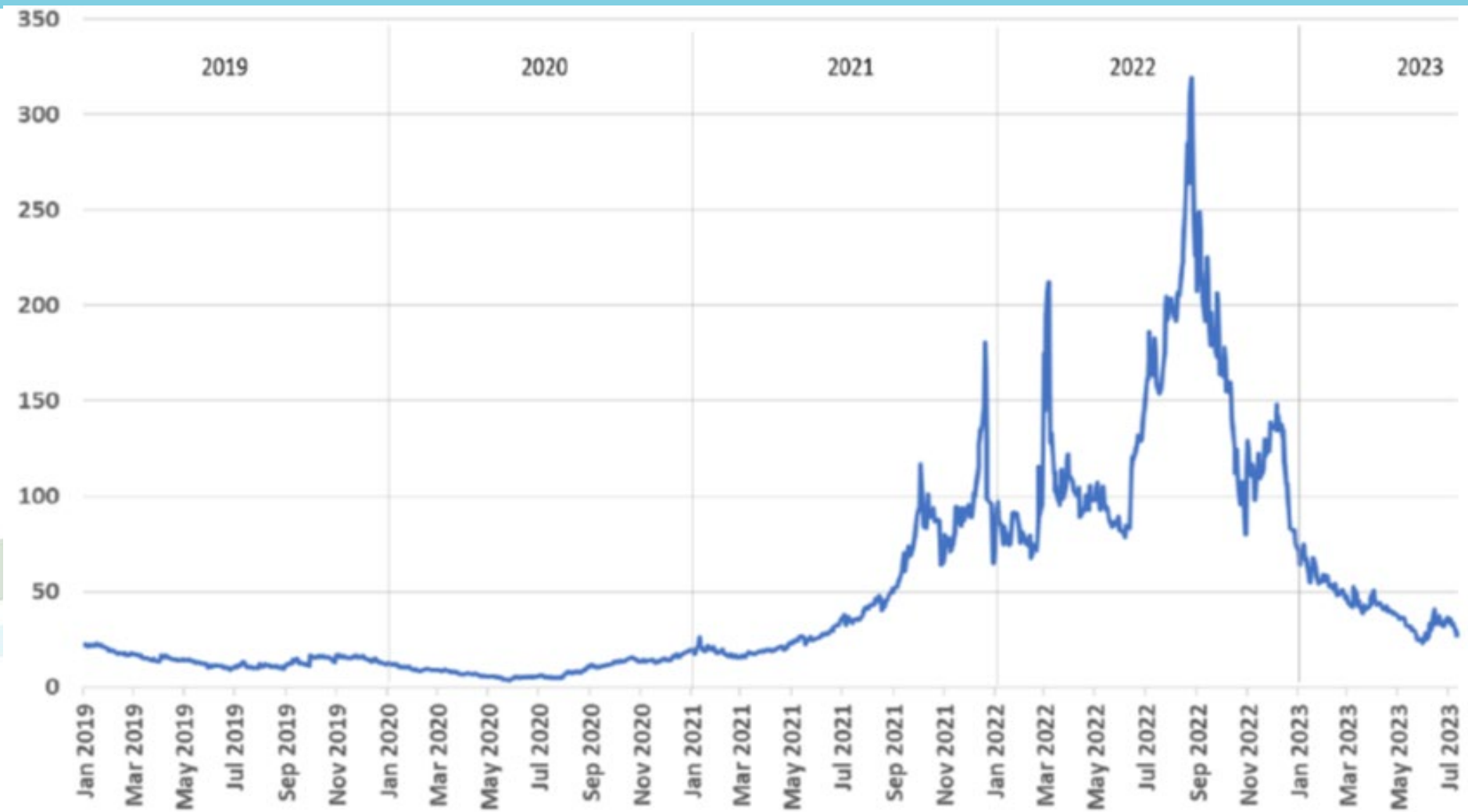
# Changes in gas imports to EU-27 by source in 2022 vs 2021 (bcm)

## a completely different gas supply pattern



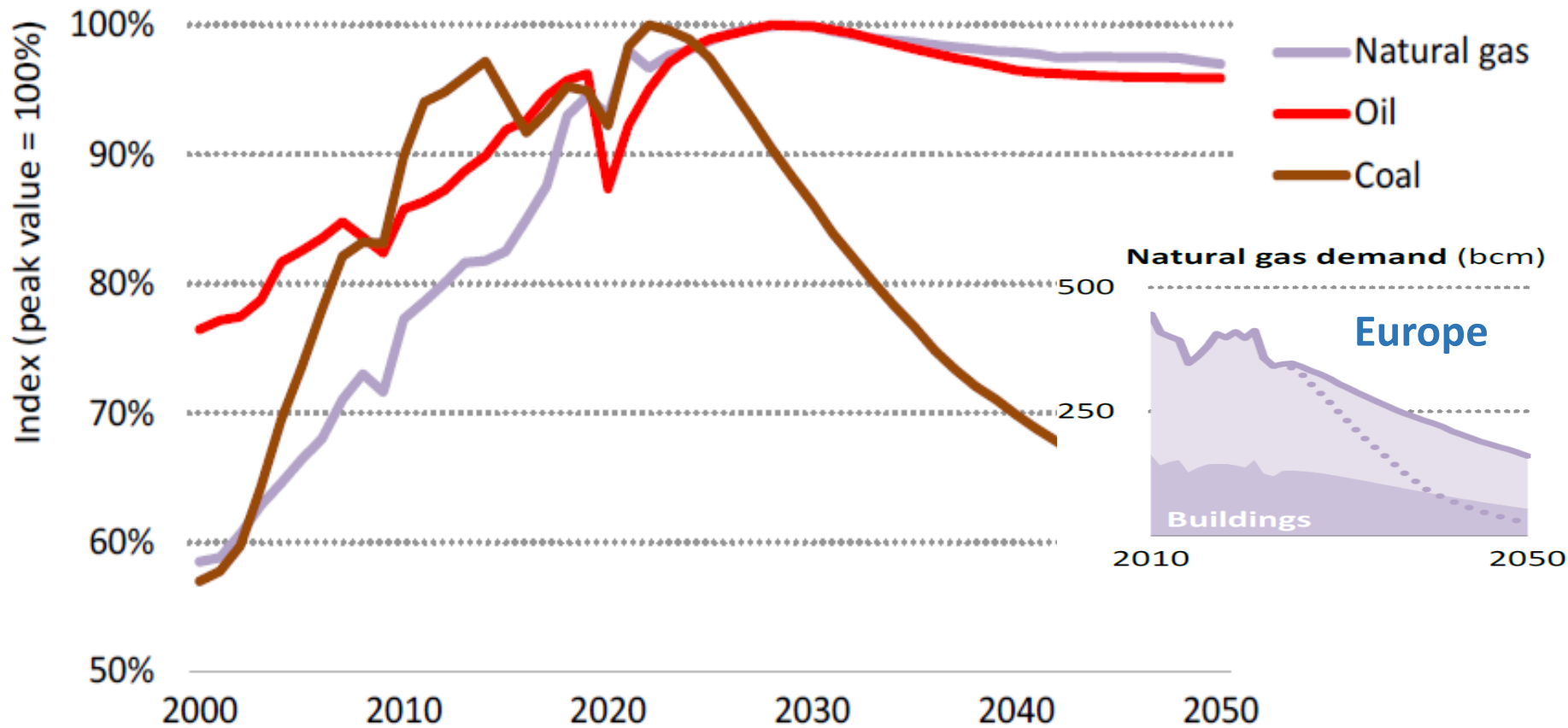


# Gas prices rocketed in 2022 and start to return to normal (although higher than pre-crisis) levels since the beginning of 2023



Source: Oxford Institute for Energy Studies

# Several recent developments certify that gas will continue playing a role till 2050

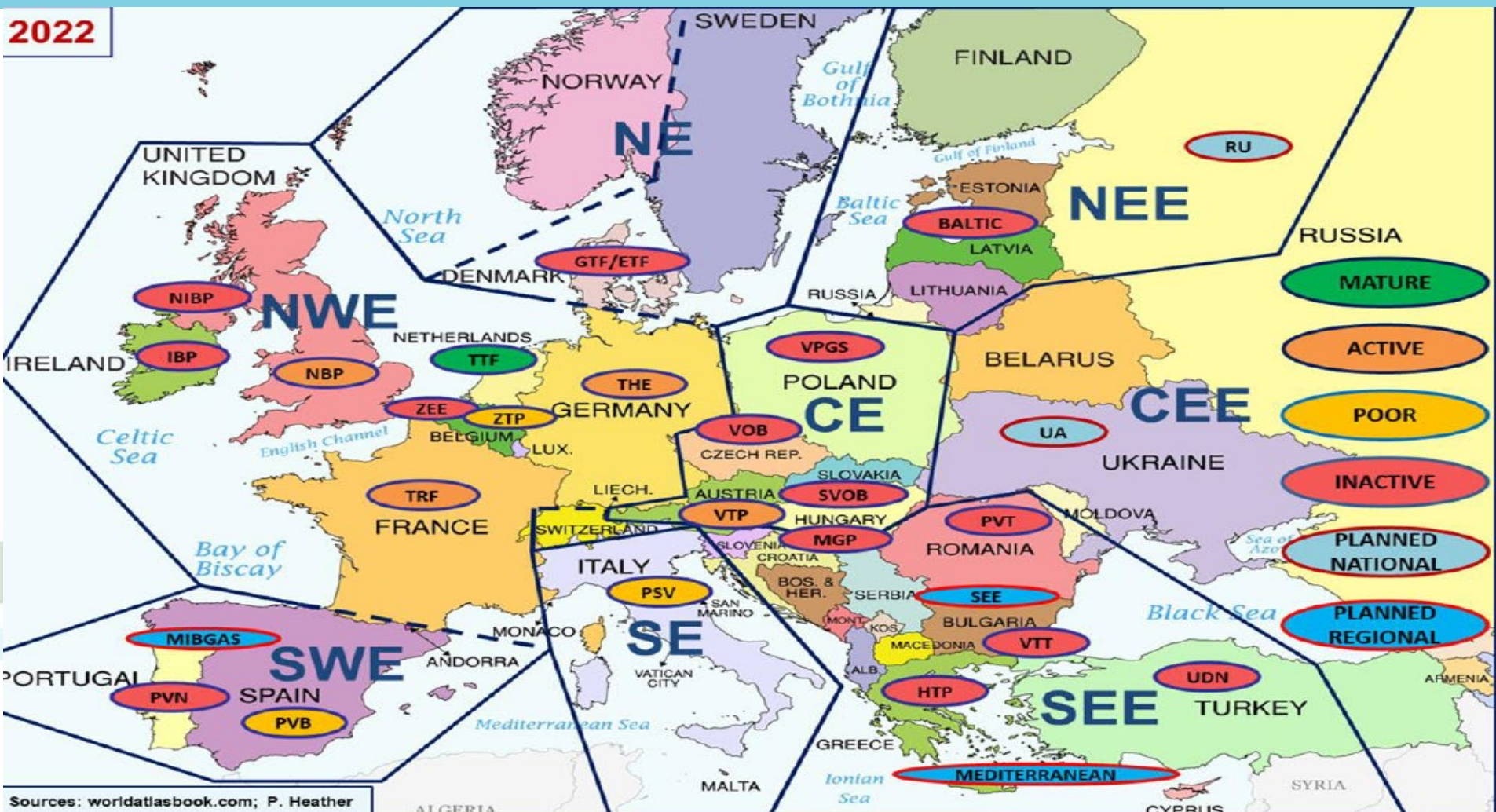


A **gas hub** could be:

- a **location** where gas transit and/or gas supply pipelines and possibly an LNG re-gas facility they end up/begin, thus allowing commercial agreements for physical gas transactions between Sellers and Buyers, gas purchases for balancing purposes from the TSOs, as well as transactions between Shippers for gas portfolios balancing and risk management purposes
- Or a **Virtual Gas Trading Point**
- Or even a **Traded Gas Hub or Gas Exchange** in which various products of standardized gas volumes and of different delivery horizons are traded safely and transparently in an electronic platform, along with other types of transactions of gas related financial derivatives/products (i.e., options and futures etc.), helping participants to effectively manage their gas portfolios and/or to mitigate their risk exposure

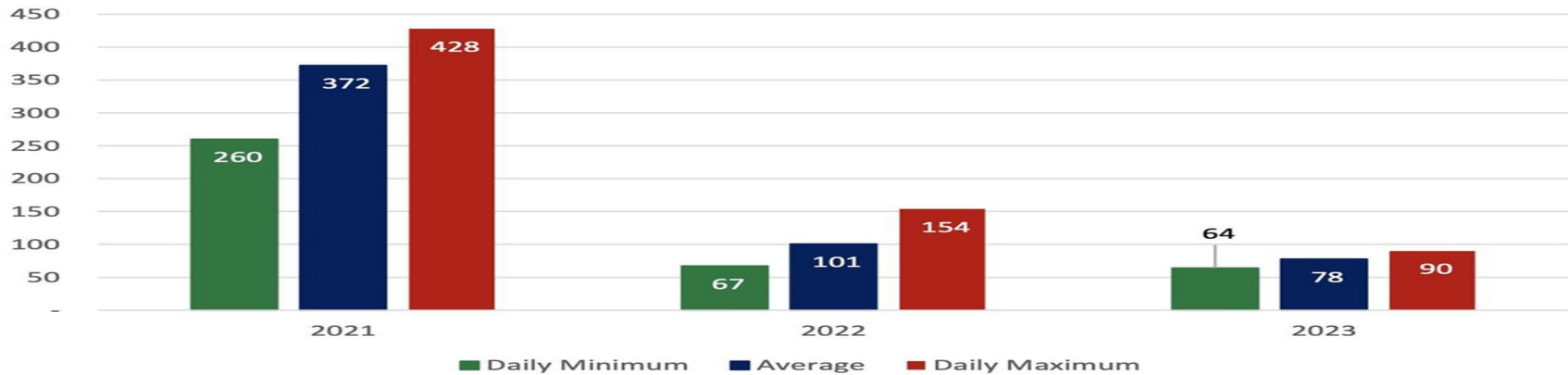


# European gas regions, markets, hubs and their status/characteristics



# Russia is looking for alternative routes to continue exporting gas to Europe

**Figure 1.5: Daily flows of Russian pipeline gas to Europe in Q3, 2021-2023 (MMcm/d)**



Source: Data from ENTSOG.<sup>4</sup> Graph by the author

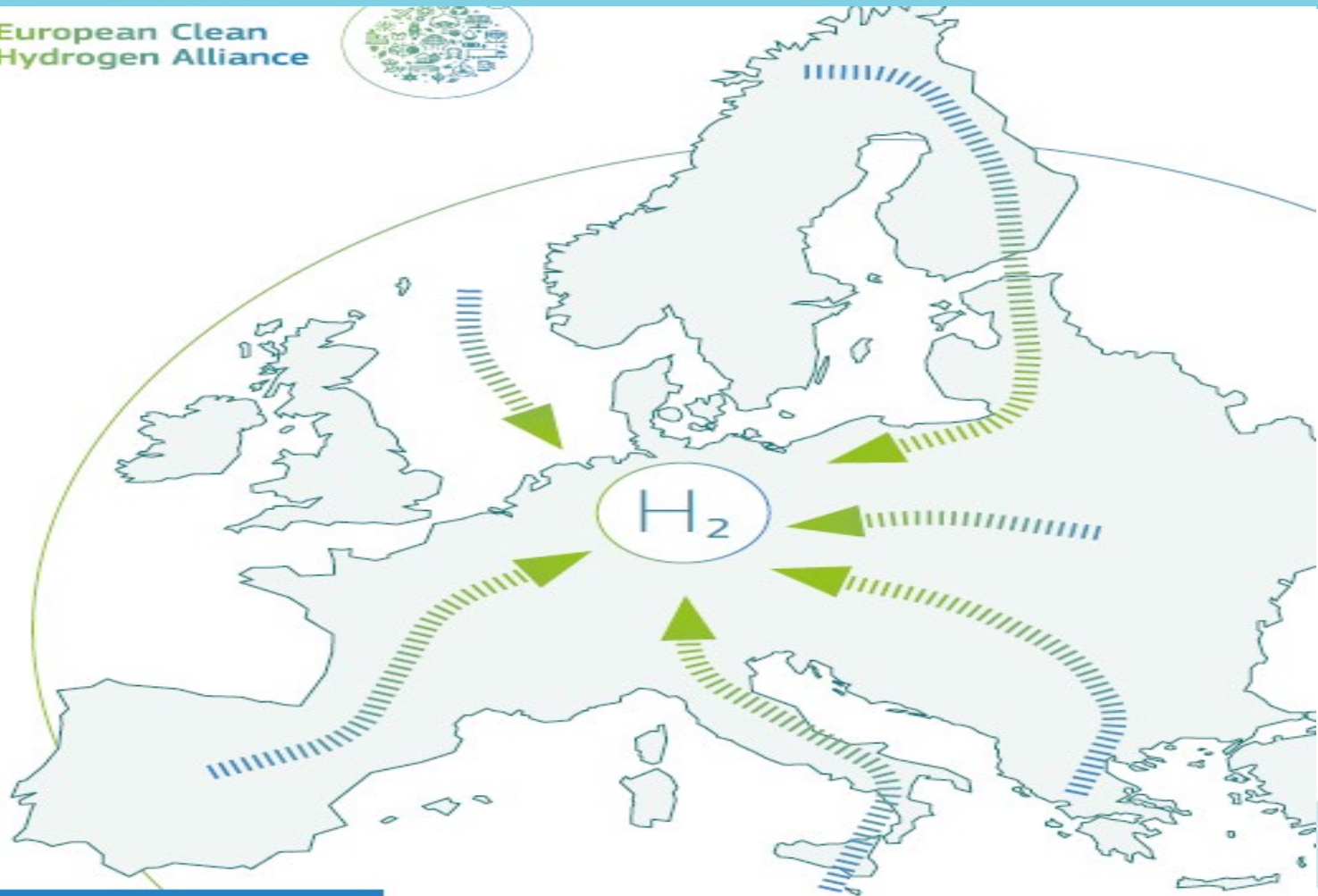
- The essence of Putin’s proposal to establish Turkey as a traded gas hub is nothing else but Russia to continue exporting gas to Europe via alternative channels
- Such a possibility fully fitted with Turkey’s long-lasting strategic vision to become not only a gas transit country, but also a gas re-seller and dispatcher of gas from different sources
- However, this perspective offends to numerous obstacles, including political, regulatory, technical and economical ones



- To the contrary, Greece's geostrategic and energy role in the region has been significantly increased the last years
- Existing and planned gas transit/supply pipelines along with local gas interconnections and LNG terminals allow Greece to become an important gate for gas/LNG supplies and for renewable and low-carbon gas **from multiple alternative sources** to SEE and CEE
- Equal important, most of the the above gas infrastructure are ready or could easily be retrofitted for future storage and transportation of renewable and low-carbon gases i.e., hydrogen, biomethane, bio-LNG etc.
- In addition, Greece has made significant progress the last years towards the adjustment the national energy and climate change legislation/regulations to European requirements and policies and simultaneously EnEx Group is successfully operating the Energy Exchange and the Natural Gas Trading Platform

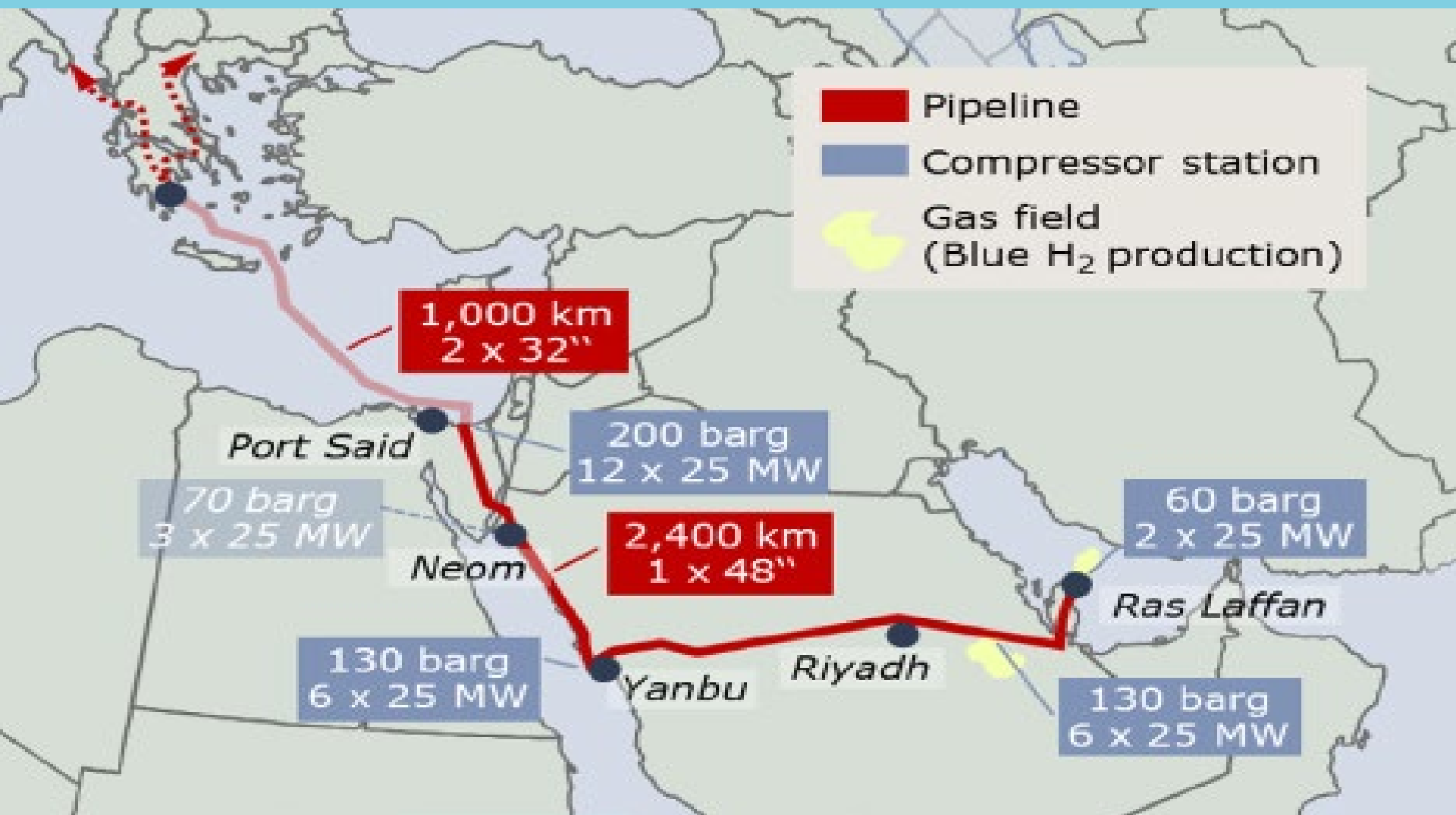
# Potential Hydrogen Supply Corridors to Europe

European Clean Hydrogen Alliance



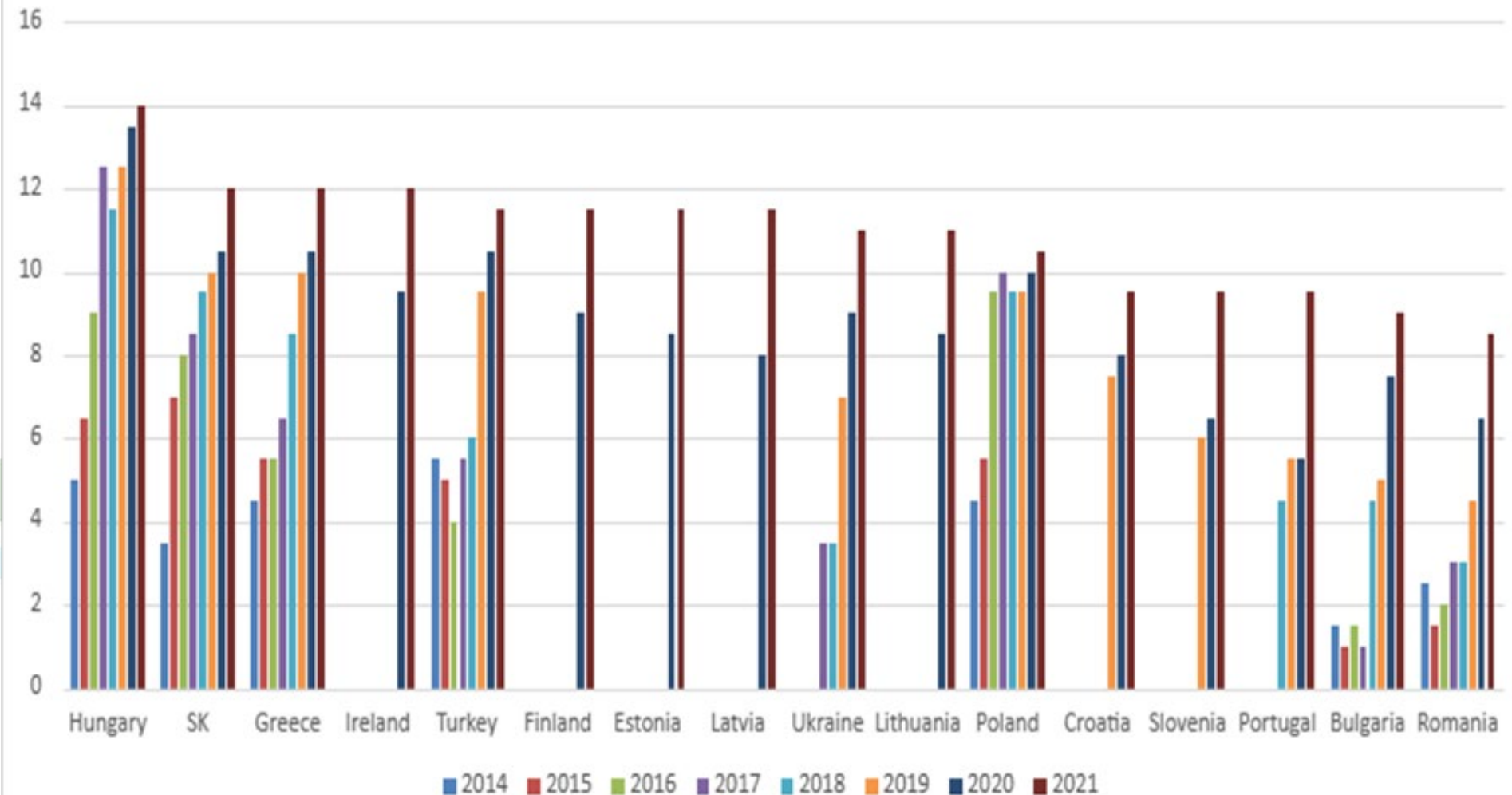
March 2023

# Gulf to Europe Hydrogen Pipeline



# Review of European Gas Hubs Assessment

EFET 2021 Gas Hub Benchmarking Study



## Establishing the “SE Europe & Eastern Mediterranean Renewable and Low-carbon Gas Traded Hub”

- Such a national goal with a regional scope is not an easy task, but it is achievable if Greece is to exploit the window of opportunity of the current geopolitical conditions and the perspective of the energy transition towards a greener future in the region
- Under the current circumstances, the attempt is expected to be backed by the EU and US, while the cost for the relevant studies and the implementation of the hub could be covered largely by the European Recovery Fund and possibly by other European and national resources
- What is needed is constant political will, specific focus to the goal from all the involved stakeholders, ownership of the hub by a truly independent organization, a reliable action plan and systematic work for the establishment of the “**SEE & EM Renewable and Low-carbon Gas Traded Hub**” in Alexandroupolis



# The benefits of a “SEE & EM Renewable and Low-carbon Gas Traded Hub” are many and very important

- Further upgrade of Greece’s geostrategic and energy role
- Enhancement of region’s energy security
- Acceleration of the energy transition
- Dynamic boost of both natural gas and “green” gases trade within a competitive and well functioning regional market
- Substantial assistance for all traditional and “green” gas market players to effectively manage their portfolios and to mitigate their risk exposure, which in turn will lead to lower gas consumer prices
- Creation of hundreds new job positions, including IT, financial, energy, law, inspection, certification services experts etc. etc.
- Support of the local economy through demand creation for offices, houses, various goods, qualified local staff, IT systems trade etc.



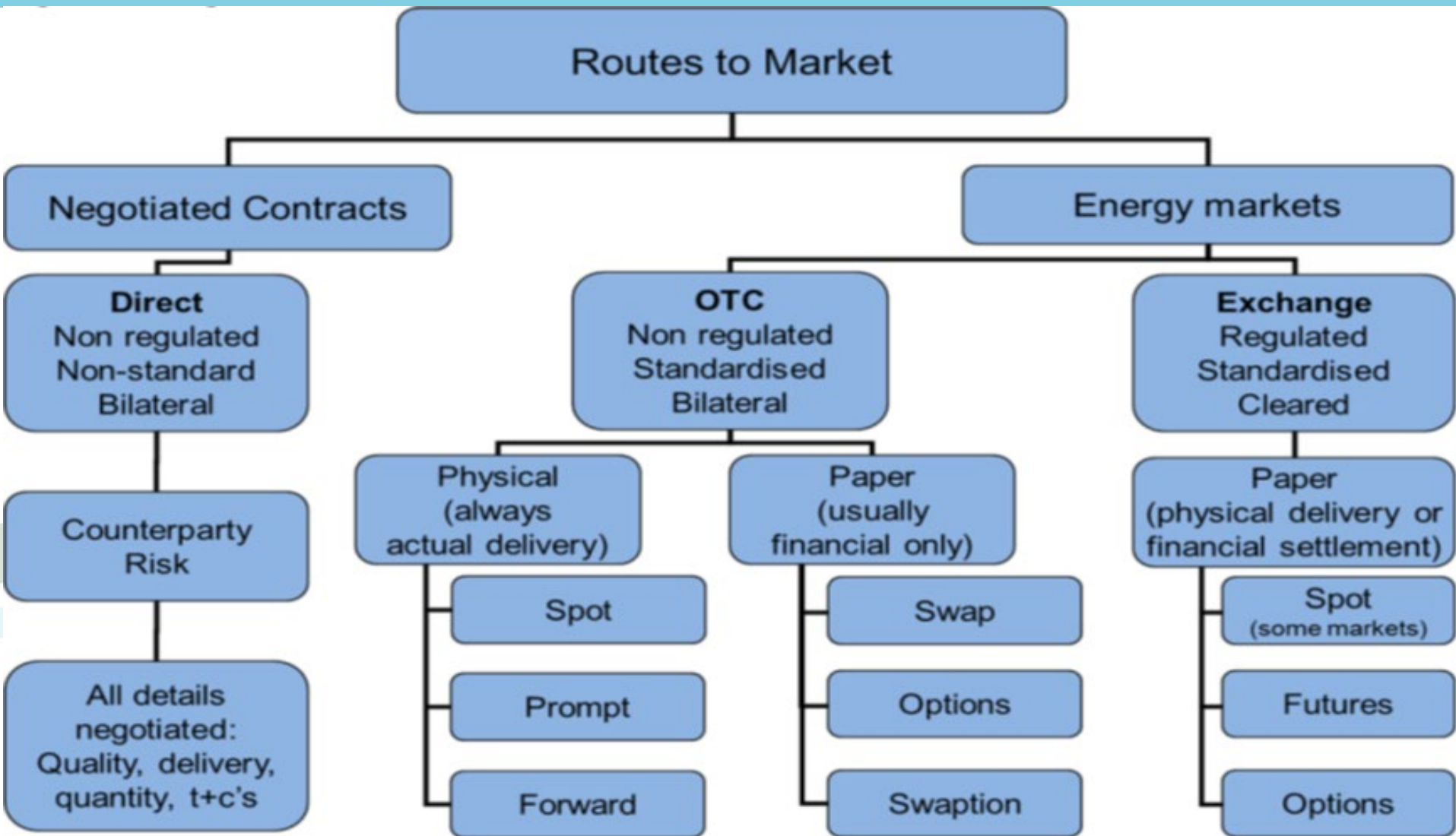
**Thanks for your attention!!!**

**Questions?**

**MEDGAS & MORE SERVICES LTD**  
**[www.medgas.com.cy](http://www.medgas.com.cy)**

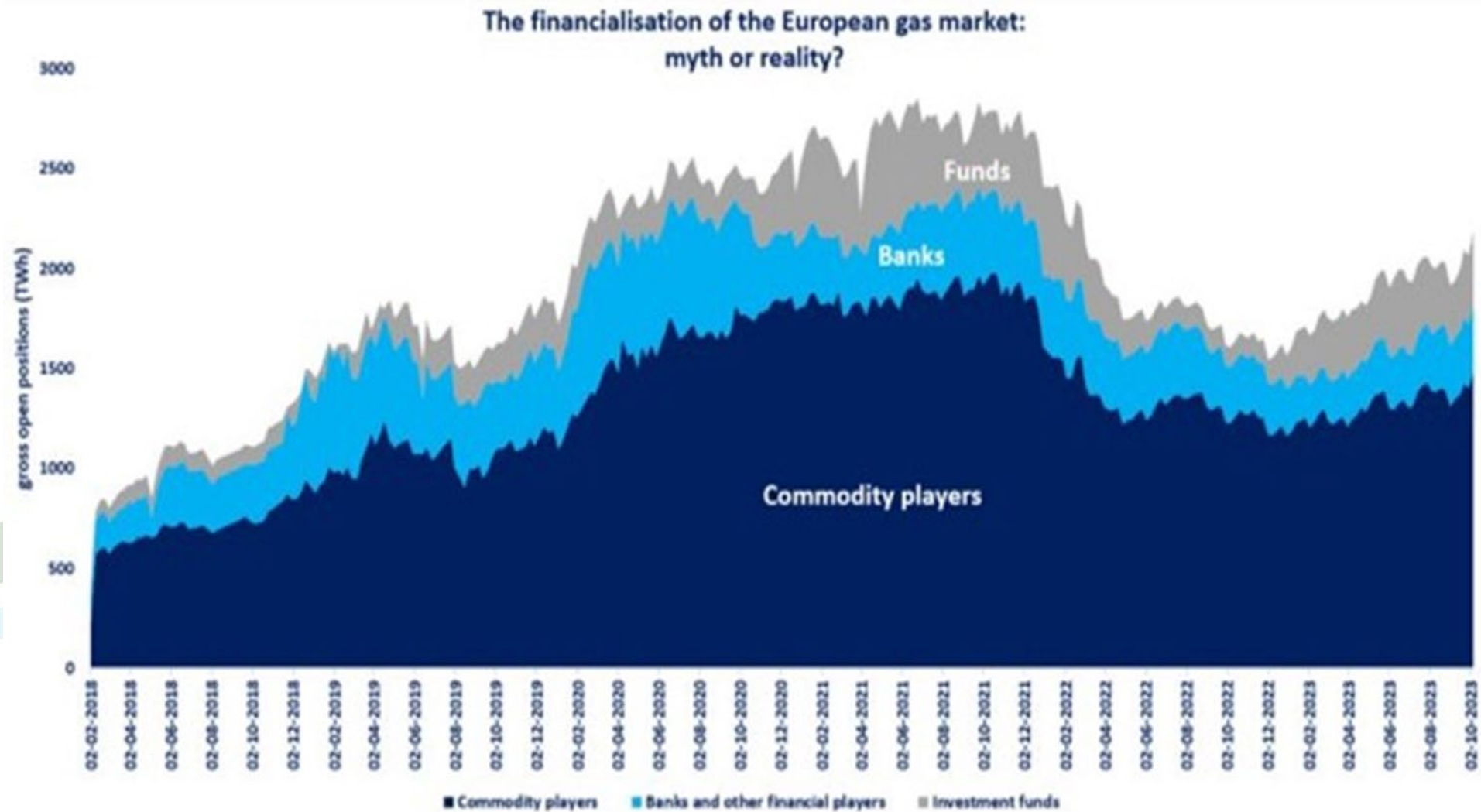
## **Back-up Slides**

# MedGas Gas transactions and hubs or exchanges



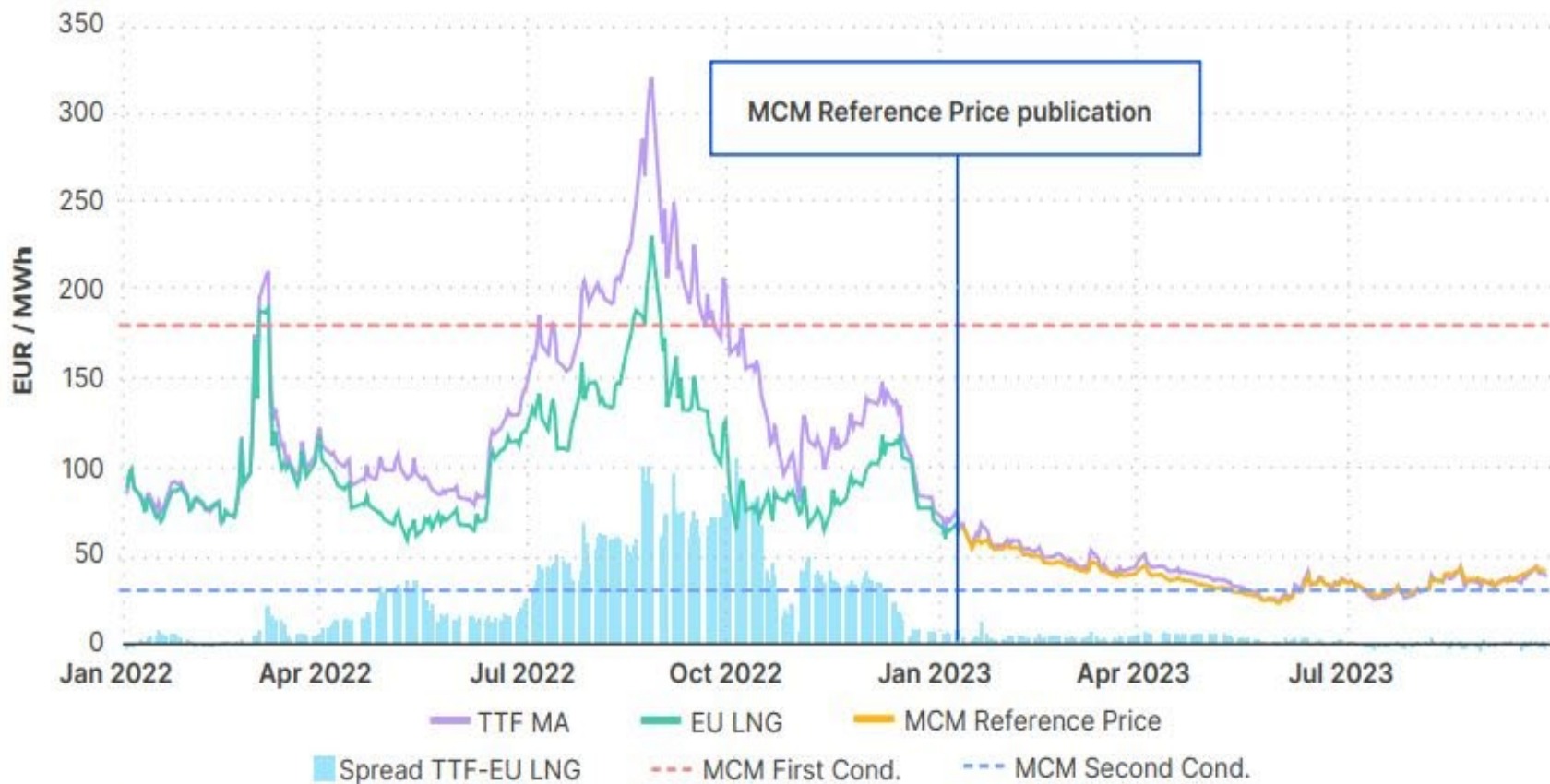
## What makes a gas hub mature?

- Patrik Heather, perhaps the most legitimate gas hub analyst at Oxford Institute for Energy Studies, uses the following metrics to assess their maturity status:
  - ✓ The number of participants
  - ✓ The number of standardized products
  - ✓ The daily/yearly volume of transactions (in terms of value)
  - ✓ The Tradability Index (ICIS)
  - ✓ The Churn Rate
- EFET uses even more complicated metrics to evaluate the status of gas hubs across all European countries
  - ✓ 5 NRA/Ministry conditions (consultation mechanism, resolution of market structural issues, role of hub operator, jurisdiction rules, establishment of gas exchange)
  - ✓ 6 TSO conditions (system access rules, title transfer, VTP, accessibility to non-physical traders, payment and credit arrangements)
  - ✓ 6 market conditions (reference price at the hub for contract settlement, standardized products/contracts, reliable reporting, commercial / voluntary market makers, participants, index for benchmarking purposes)



# Speculative trading practices in 2022 led to unprecedented price fluctuations

Figure 2: Front-month TTF, EU LNG spot and MCM Reference Price evolution (EUR/MWh) – January 2022 – September 2023



Source: ACER calculations based on Platts, Argus and ICE Endex.