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Norwegian University of Science and Technology

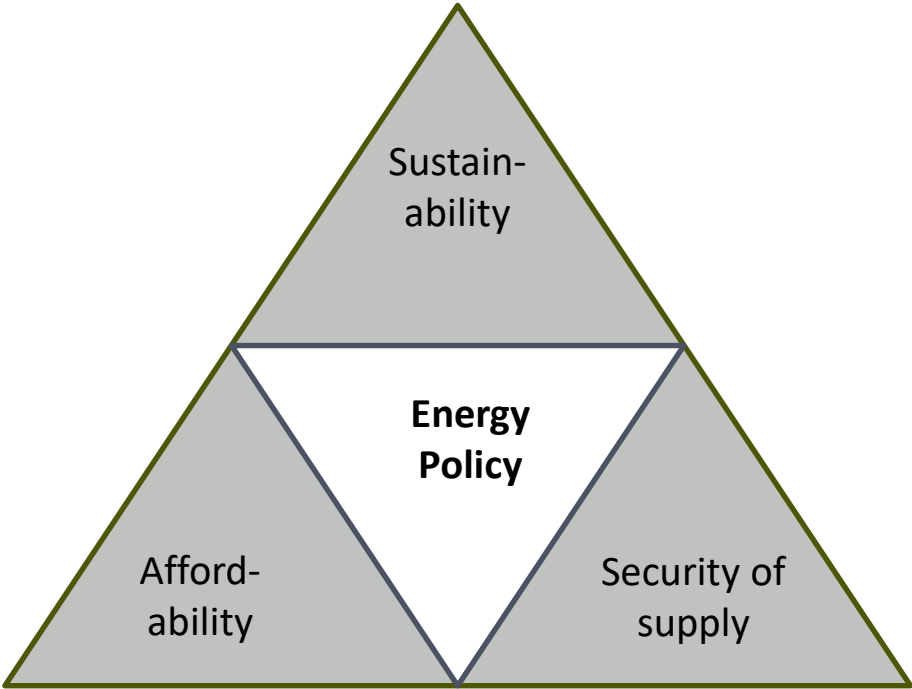
# Energy security in a changing context: EU strategy

Prof. Dr. Anne Neumann

IAEE 2023 (Bocconi, Milan, Italy)

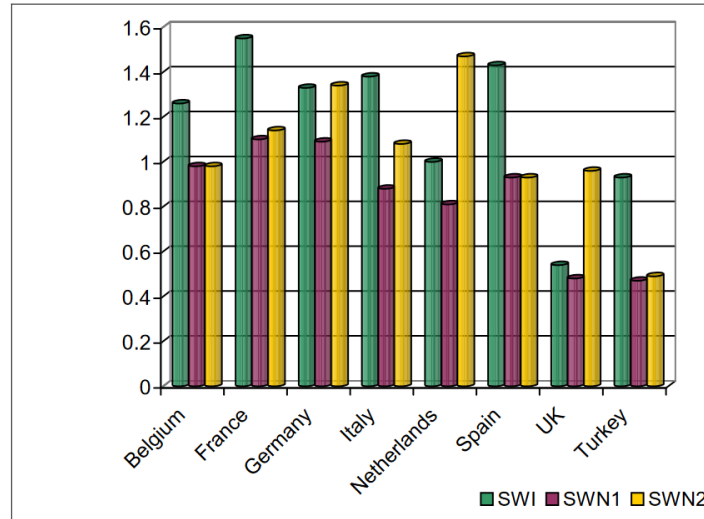


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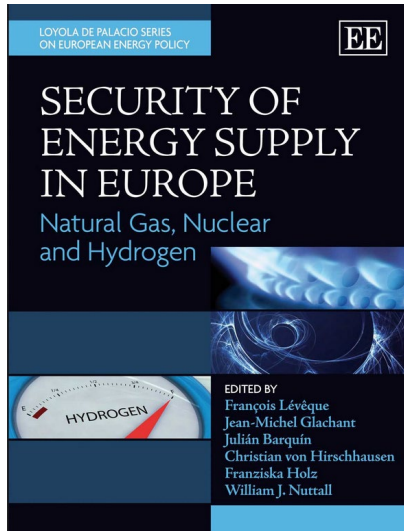
# Security of European energy supply

Figure 3: Adjusted “Shannon-Wiener-Neumann-Index” for Europe (2002)



## INDES Project

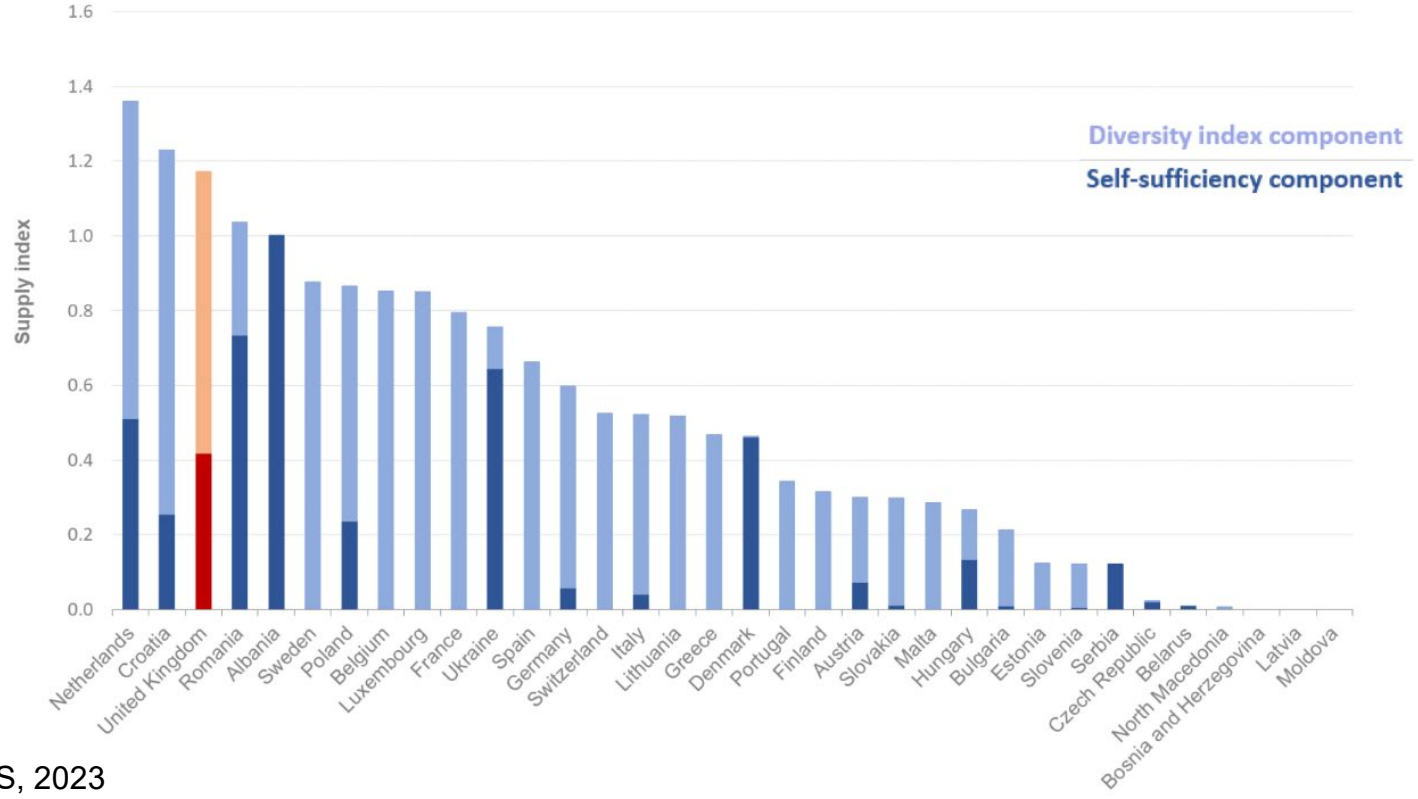
- “Insuring against Disruptions of Energy Supply” (2003-2004)
- Joint project undertaken by the Centre for European Policy Studies (CEPS), the Energy research Centre Netherlands (ECN) and the Fondazione Eni Enrico Mattei (FEEM).
- Fifth Framework Programme and funded by the European Commission DGTren



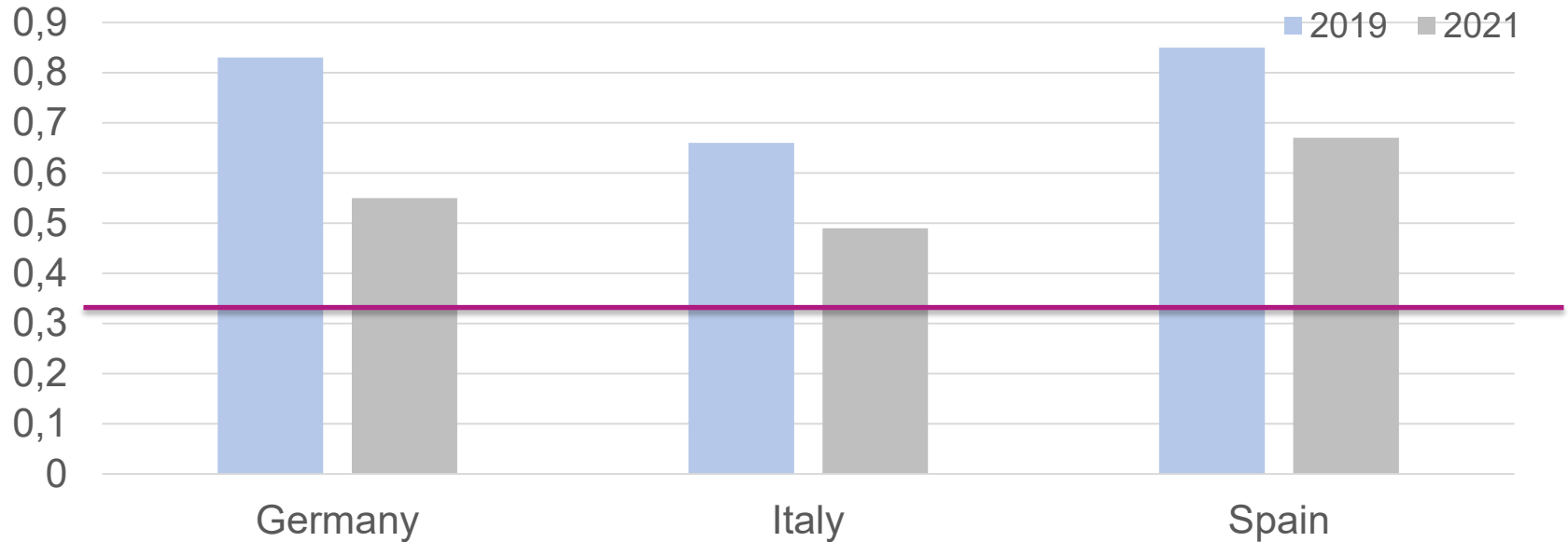
## 1. Supply security and natural gas

**Christian von Hirschhausen,  
Franziska Holz, Anne Neumann and  
Sophia Rüster<sup>1</sup>**

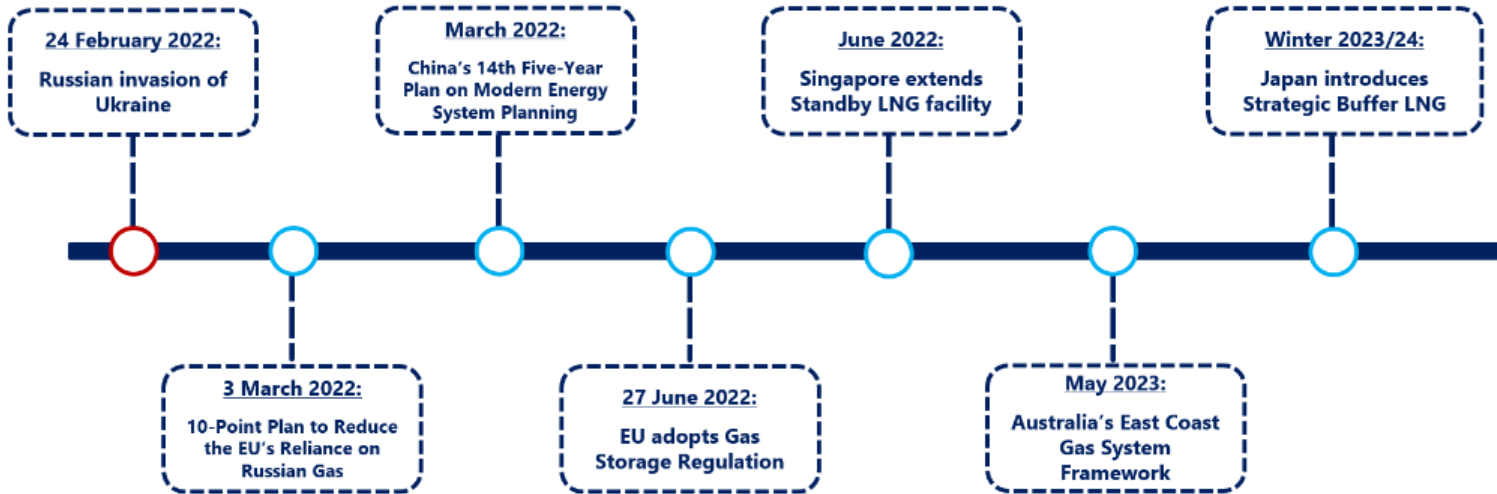
# Security and diversity of European natural gas supply



# Diversity index decreased before the crisis



# Key storage policies and regulations since 02/2022



# Thank you.

Anne Neumann ([anne.neumann@ntnu.no](mailto:anne.neumann@ntnu.no))

 @anne\_f\_neumann

 @anne-f-neumann

ORCID 0000-0002-5980-9651



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# Lessons learnt

- Diversification of import sources (and transportation types)
- Spot price indexation as remedy?
- Behavioral change is possible
- Storage filling requirement

# Changes in natural gas trade are permanent

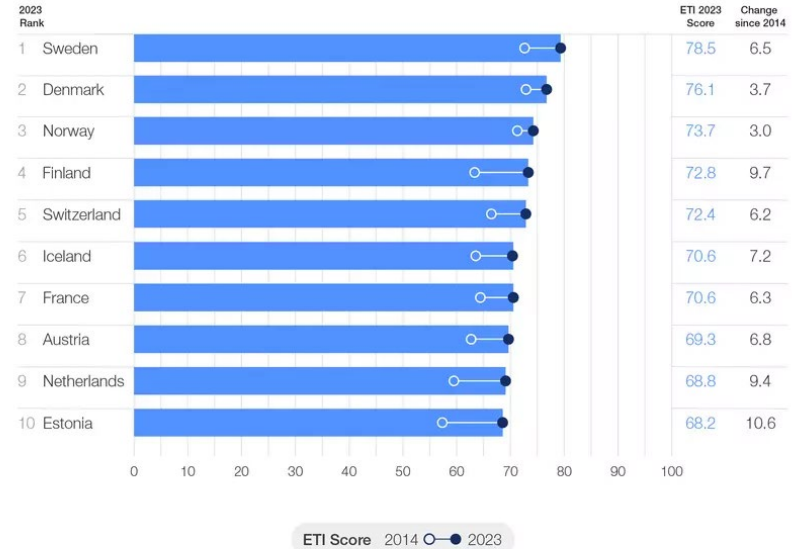
- Decreasing demand in Europe ...
- ... with a shift toward more spot trading
- LNG will dominate international trade with a clear focus on demand in Asia

# Energy Transition on track in Europe

- Europe: Clean, secure and
- Globally: at the expense of equity

Fostering Effective Energy Transition 2023 Edition

## Energy Transition Index 2023: Top 10 countries



**Note:** The Energy Transition Index benchmarks countries on the performance of their energy system, as well as their readiness for transition to an equitable, secure and sustainable future energy system. ETI 2023 scores on a scale of 0-100.

**Source:** World Economic Forum, Fostering Effective Energy Transition 2023. Read more at [wef.ch/energy23](https://wef.ch/energy23)

- Empowered consumers
- Institutions
- Competitiveness
- New, fast growing industries
- Jobs
- Less energy dependency

- **In what ways did the current crisis in the Ukraine change the “energy security” situation in Europe?**
- **Did the current crisis change the speed and direction of the energy transition?**
- **Are the changes in oil and gas trade patterns following the crisis transitory or of permanent nature?**
- **Will the crisis change the patterns and destinations of energy investments in Europe and worldwide?**