

Benchmarking for Good Practices

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The SESSA Objective

“What is going well (and badly) in the
European Electricity Industry ...

... and how can we tell?”

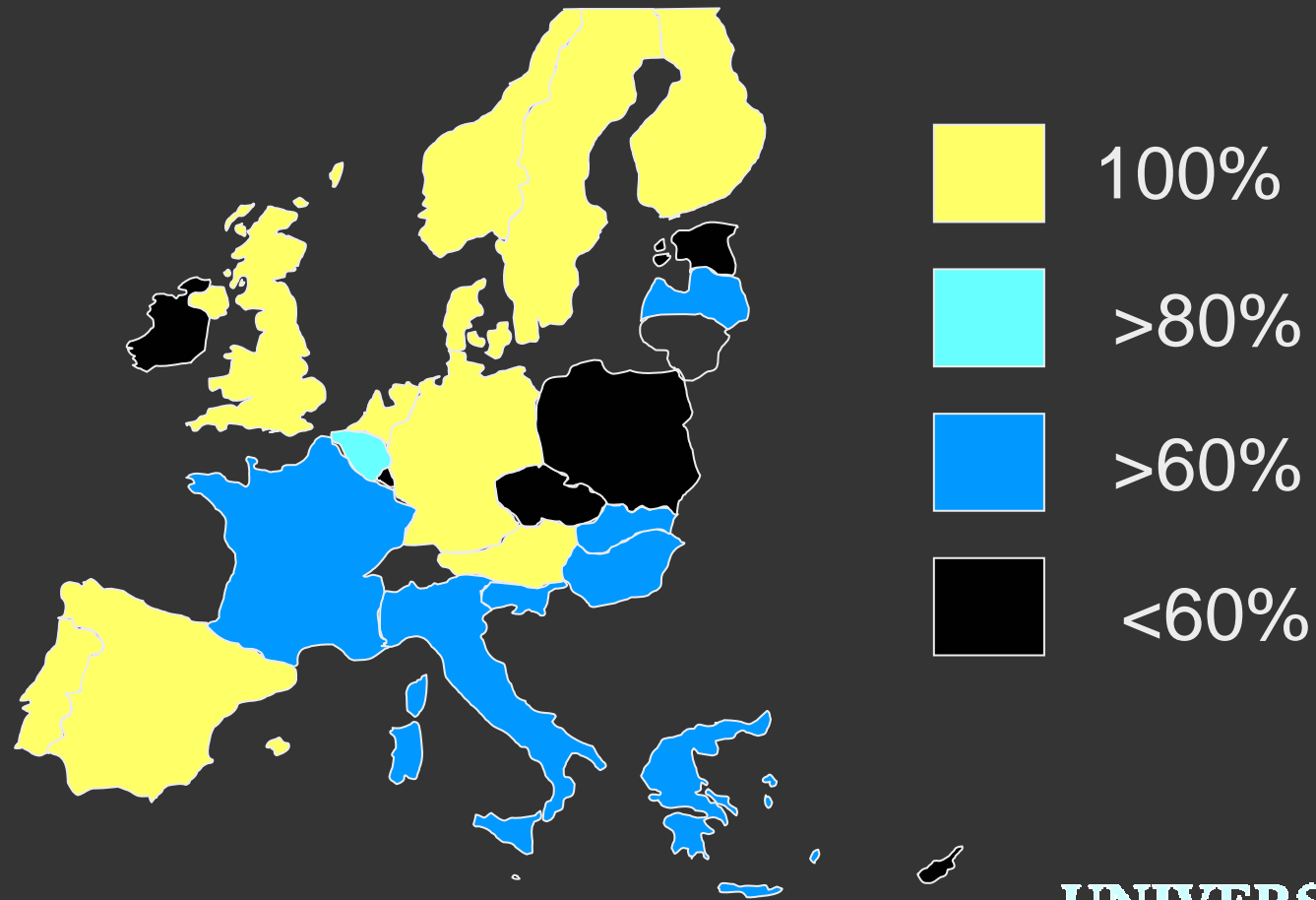
What is a benchmark?

- A signal about performance
- Data comparable across several countries
- Not chosen just “because it was there”
- Performance not always the result of policy
- Good benchmarks minimise false signals

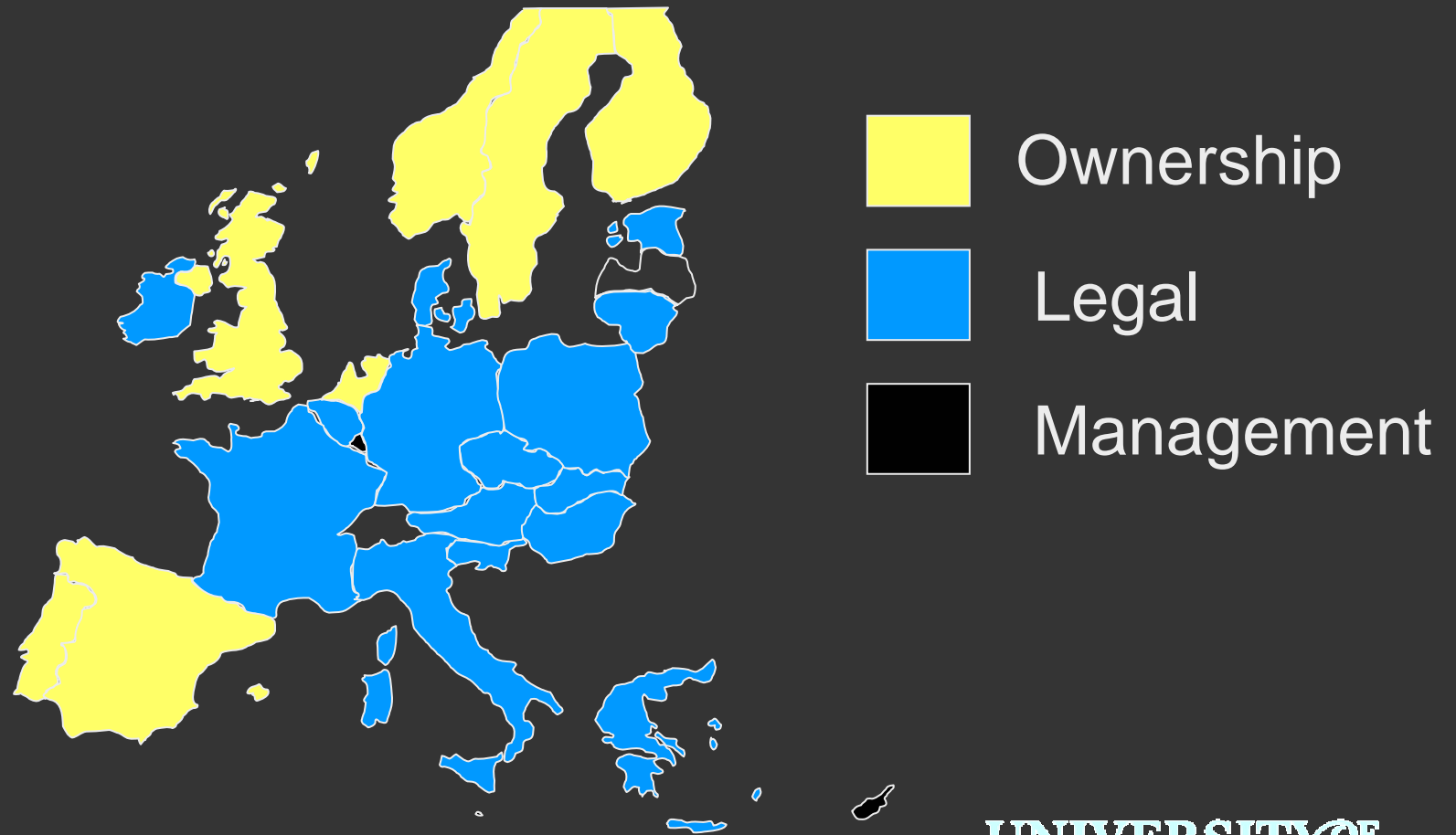
Benchmarks for market design

- Level of retail market opening
- Form of transmission unbundling
- Type of wholesale market
- Method of balancing
- Level of market liquidity

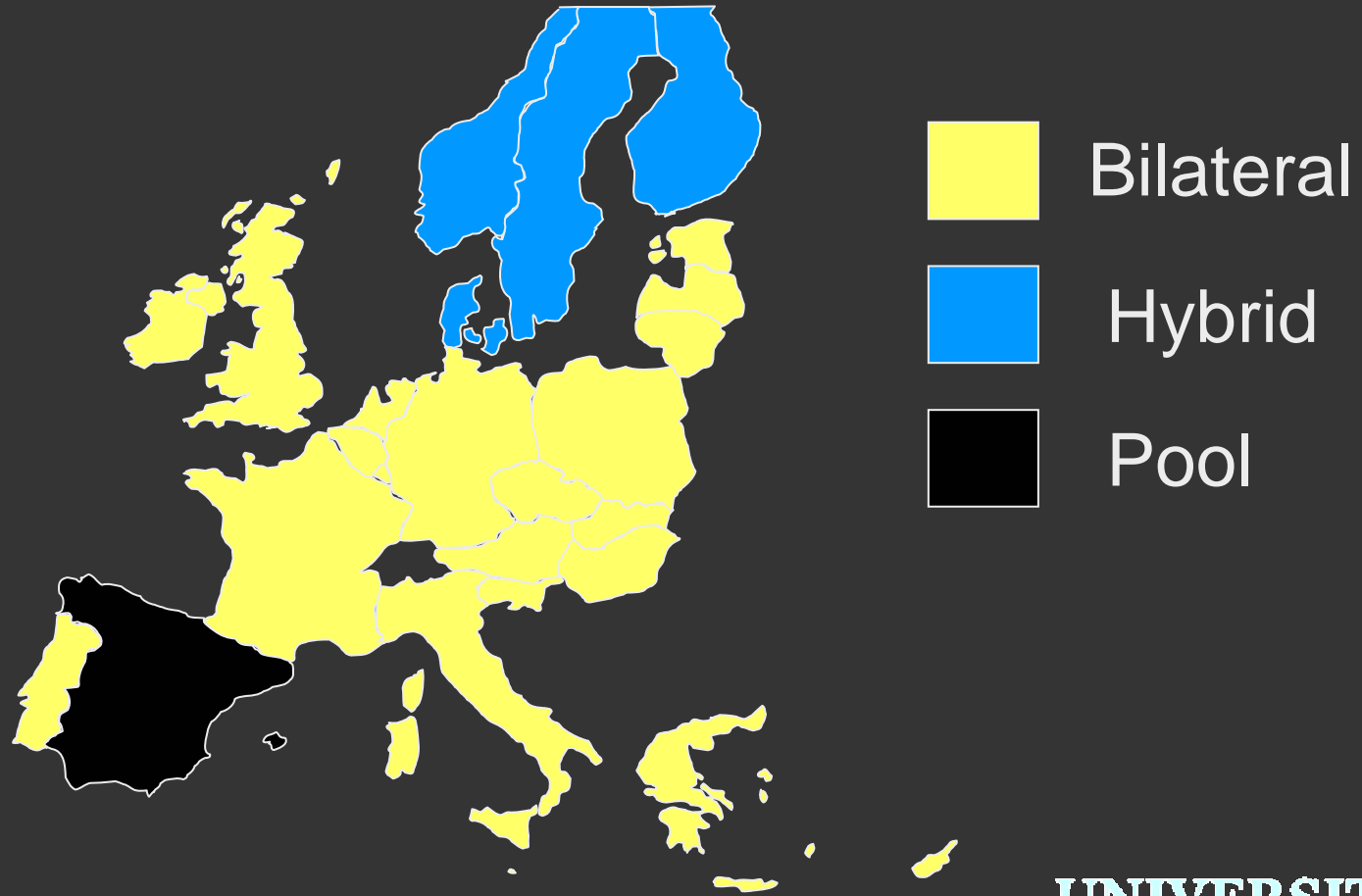
Level of market opening



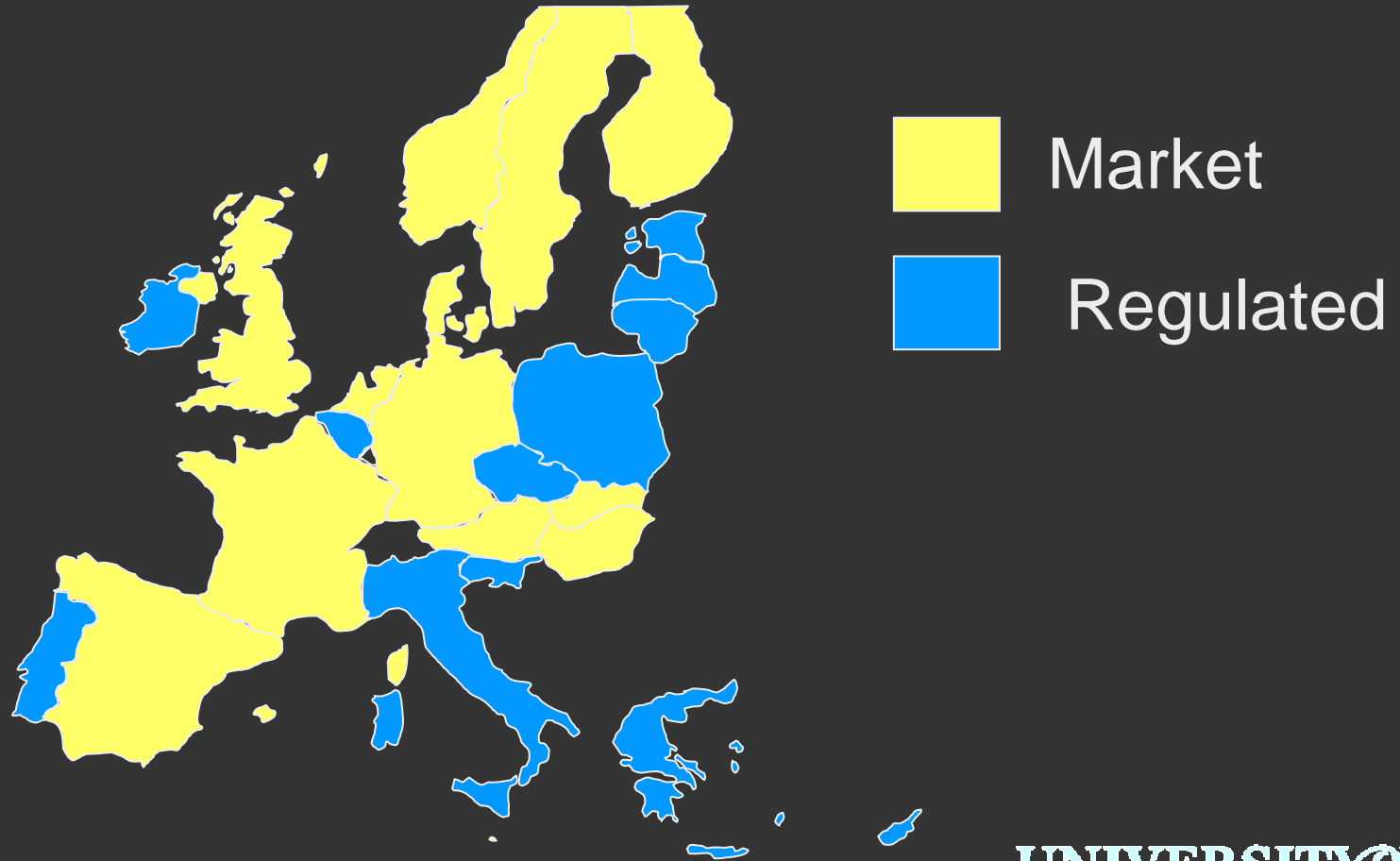
Type of transmission unbundling



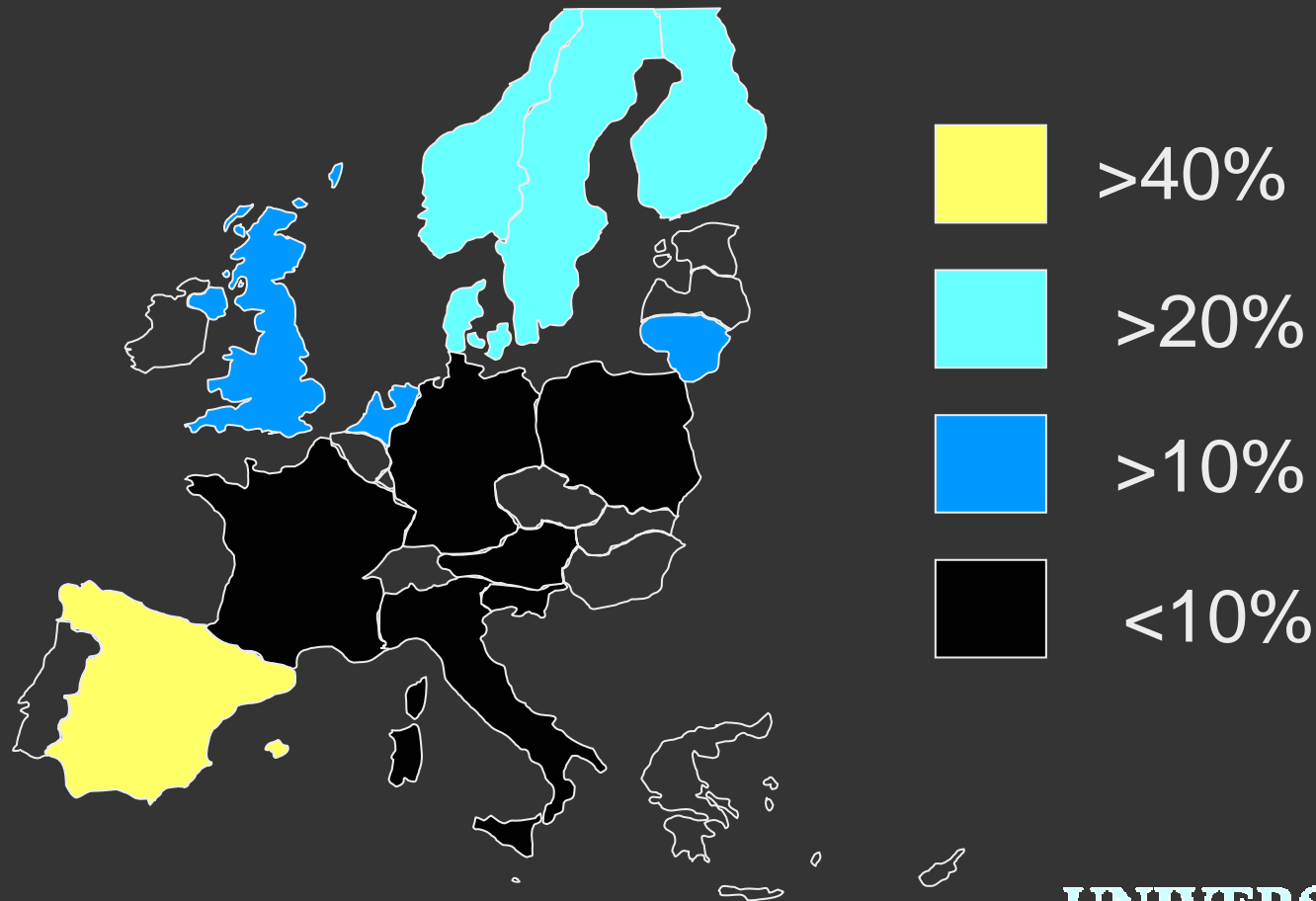
Market model



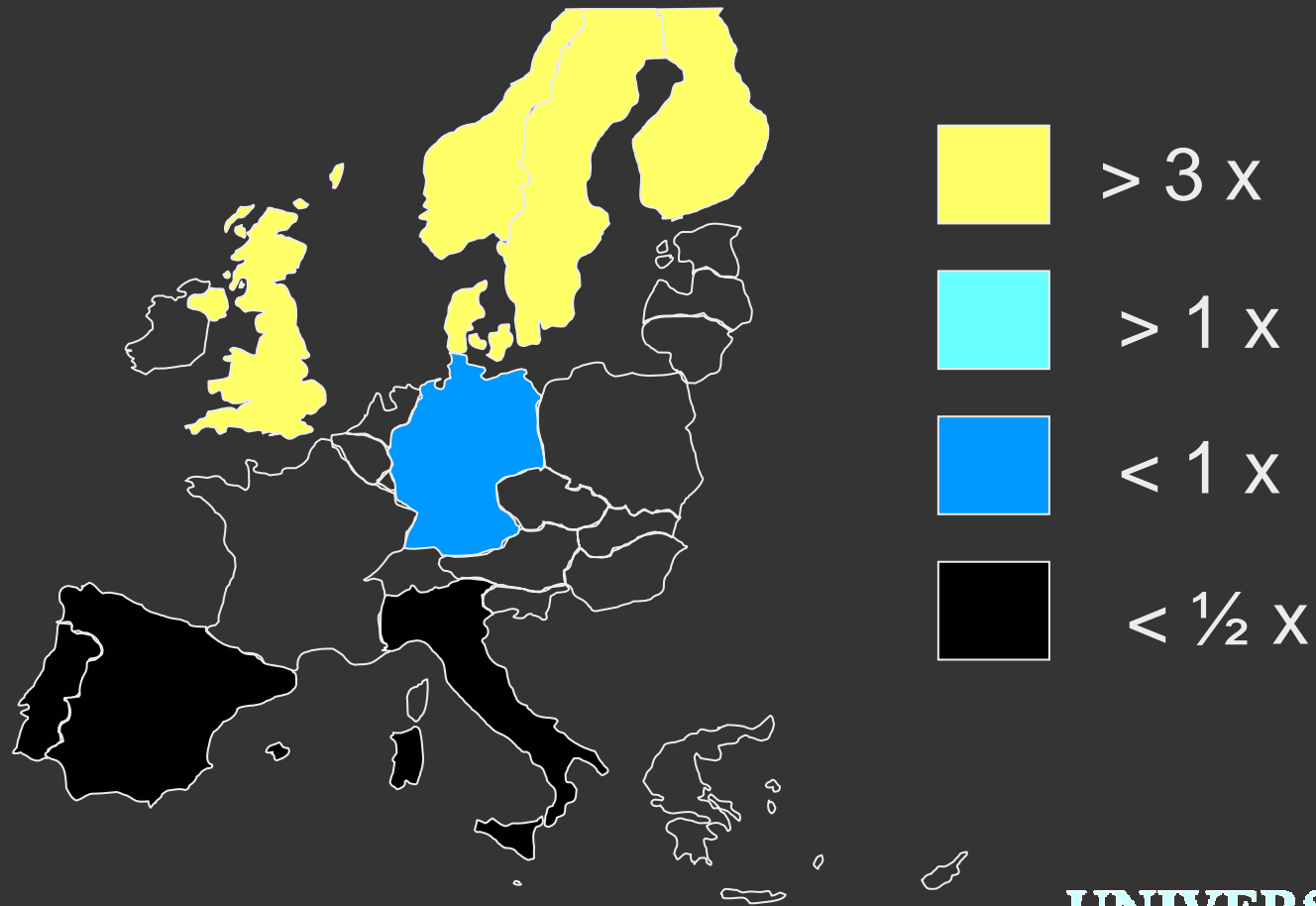
Method of balancing



Liquidity in power exchange



Liquidity in standardised contracts



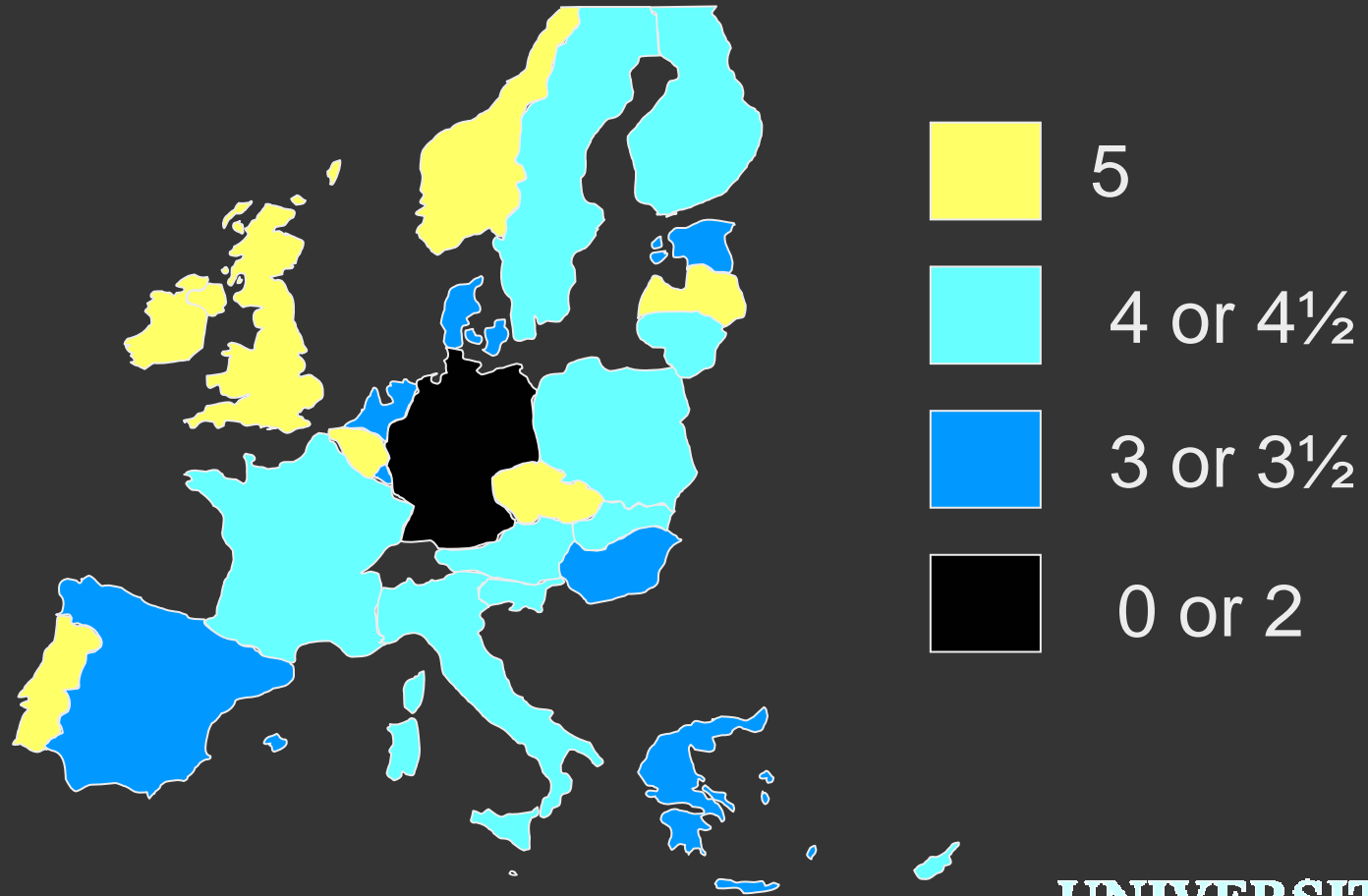
Benchmarks for regulation

- Powers and organisation of regulator
- Regulatory budget
- Regulatory performance is hard to assess and harder to measure

Jamasb and Pollitt (2005)

- Ex ante regulation (=1)
- Ministerial involvement (= 1/2 or 0)
- Power to set network access (=1)
- Power to settle disputes (=1)
- Power to acquire information (=1)

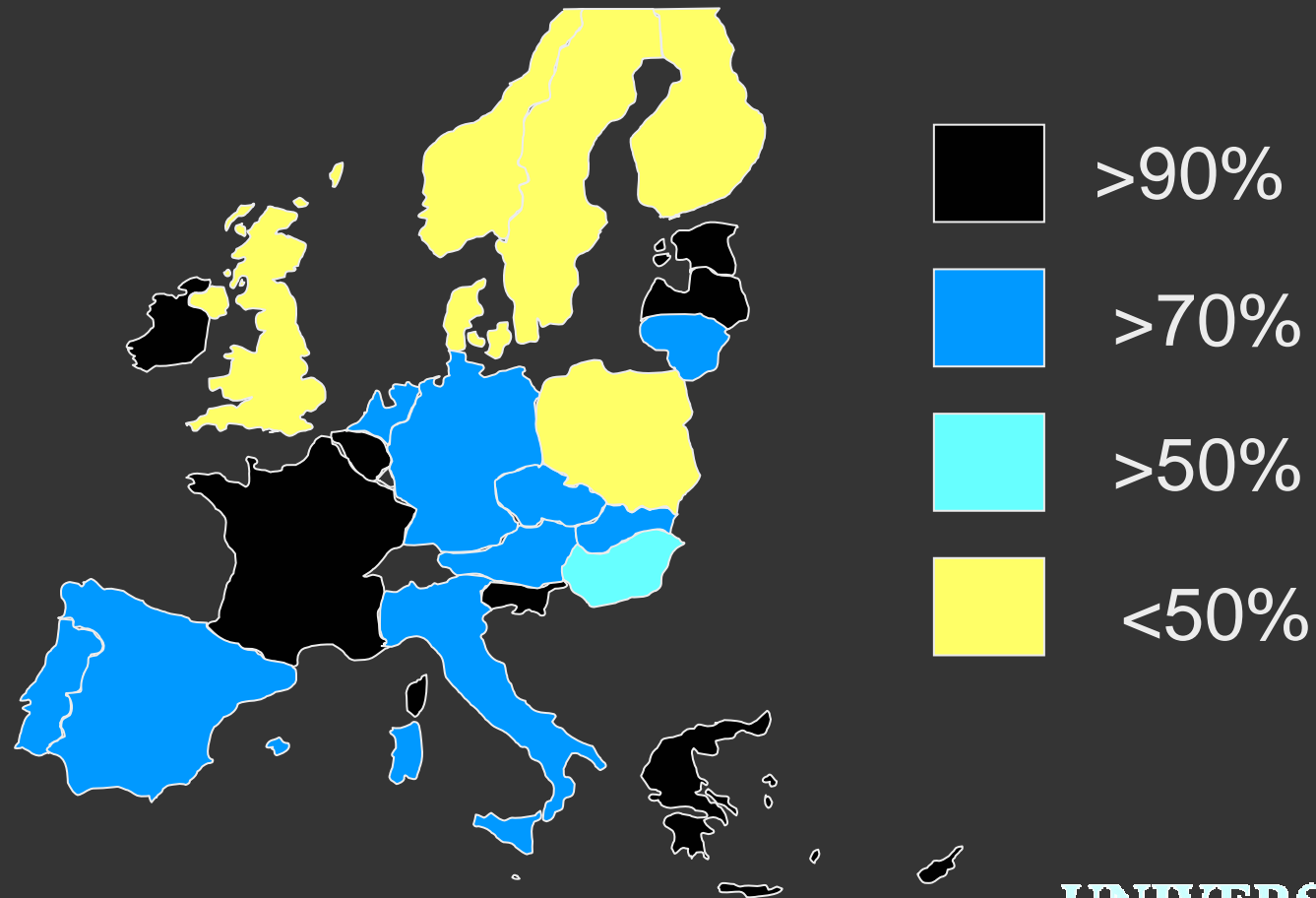
Strength of regulator



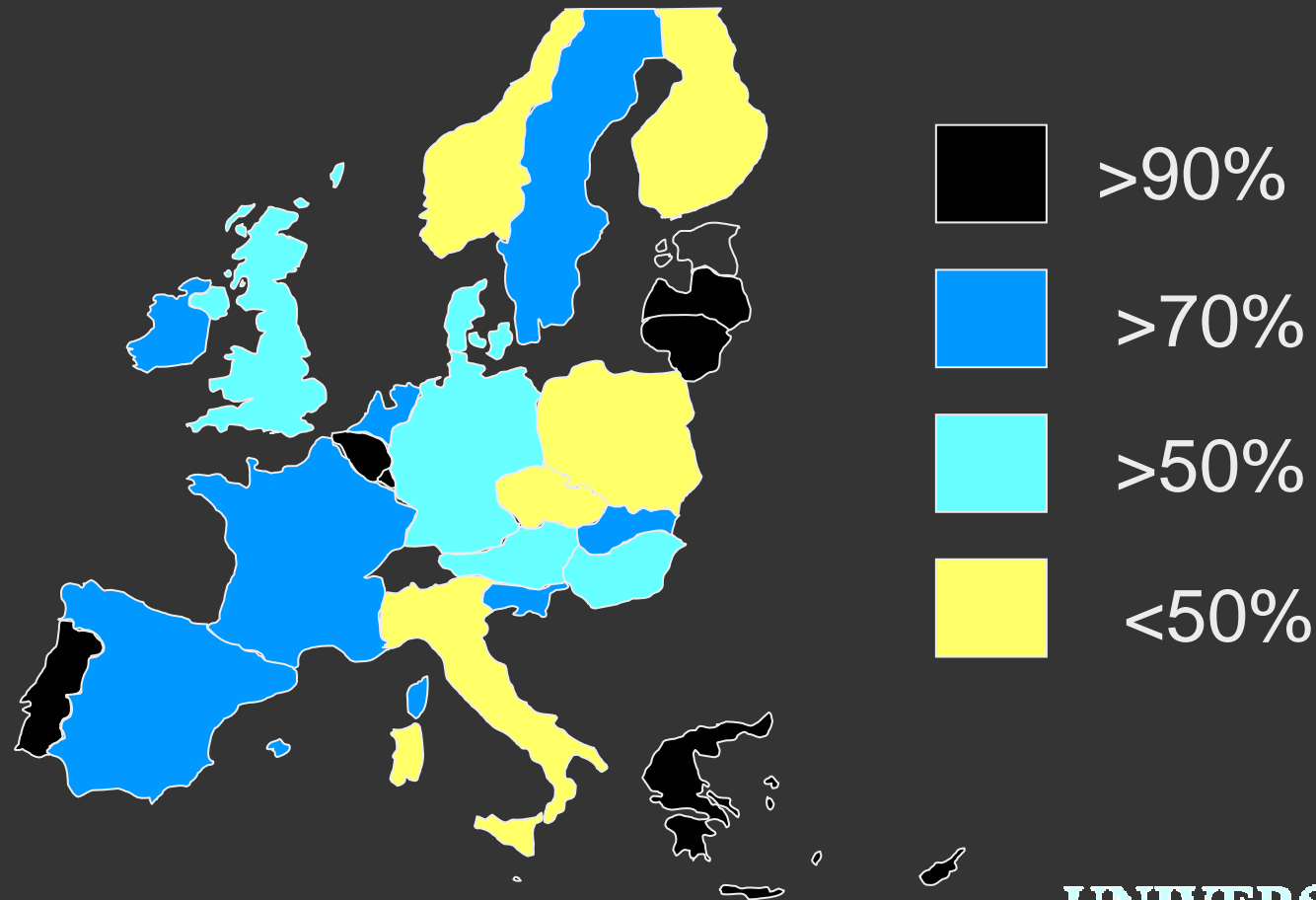
Benchmarks for market power

- Capacity shares of generators
 - Concentration ratio or
 - Hirschman-Herfindahl Index ($\sum \text{shares}^2$)
- Market shares of retailers
- Customer switching
 - Since market opening
 - In the last year

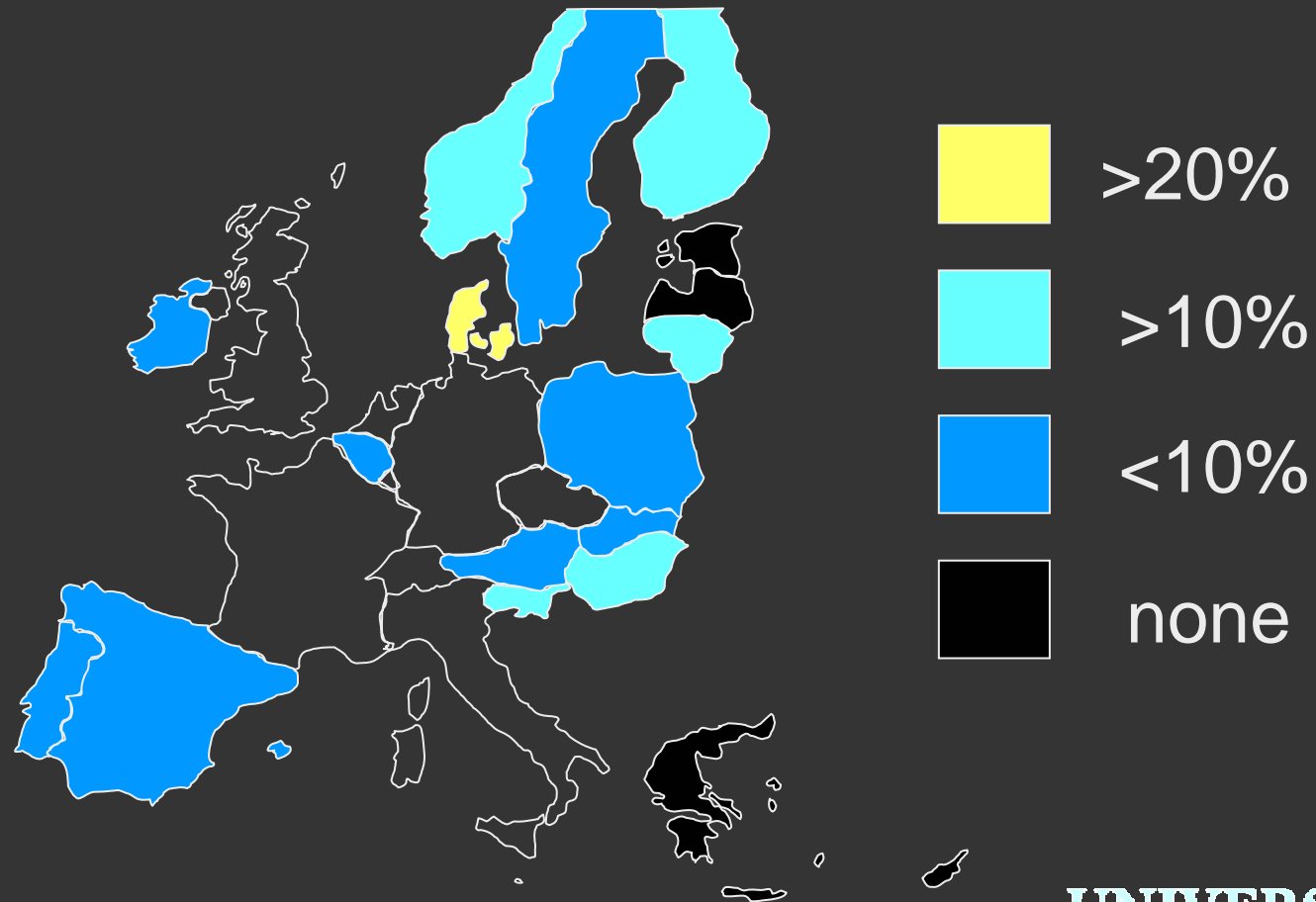
Top 3 generators' share of capacity



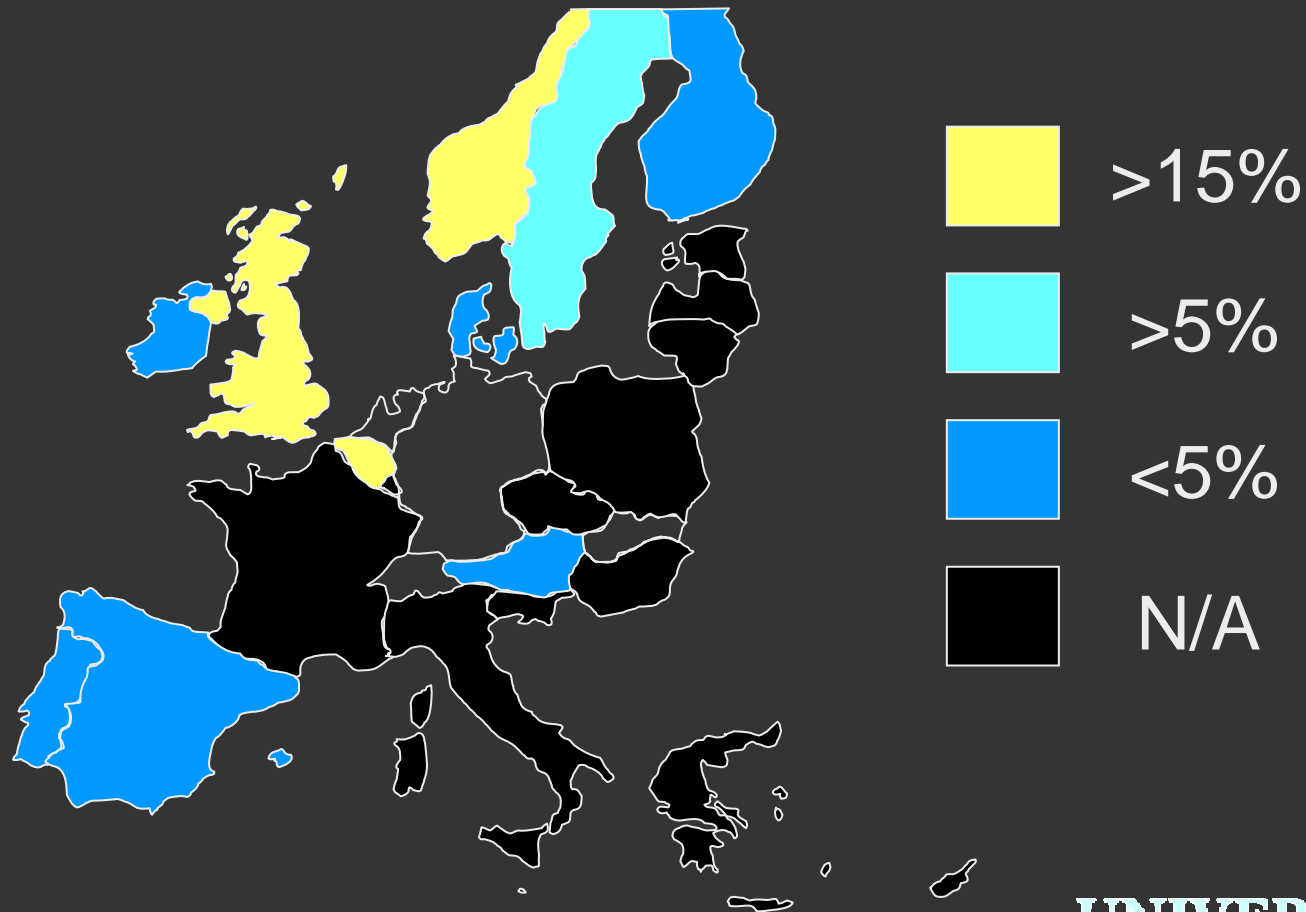
Top 3 retailers' share of sales



Large customer switching, 2003



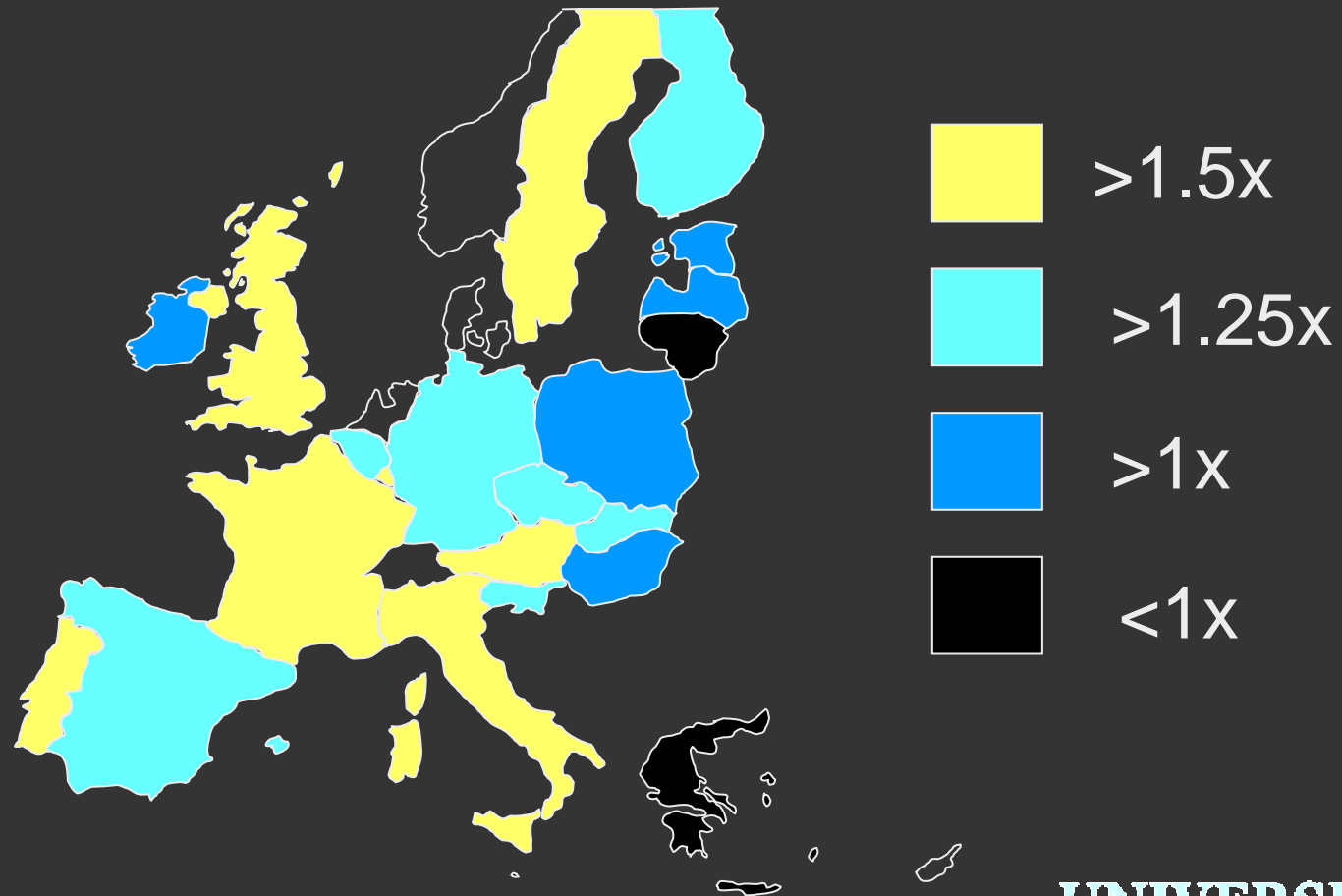
Small customer switching, 2003



Benchmarks for EU Enlargement

- Many challenges picked up by general benchmarks
- Ratio of domestic to industrial prices
- Ratio of revenues to costs
- Proportion of long-term contracts given with no competition in generation/ transmission
- Correlation between independent traders' and overall net exports

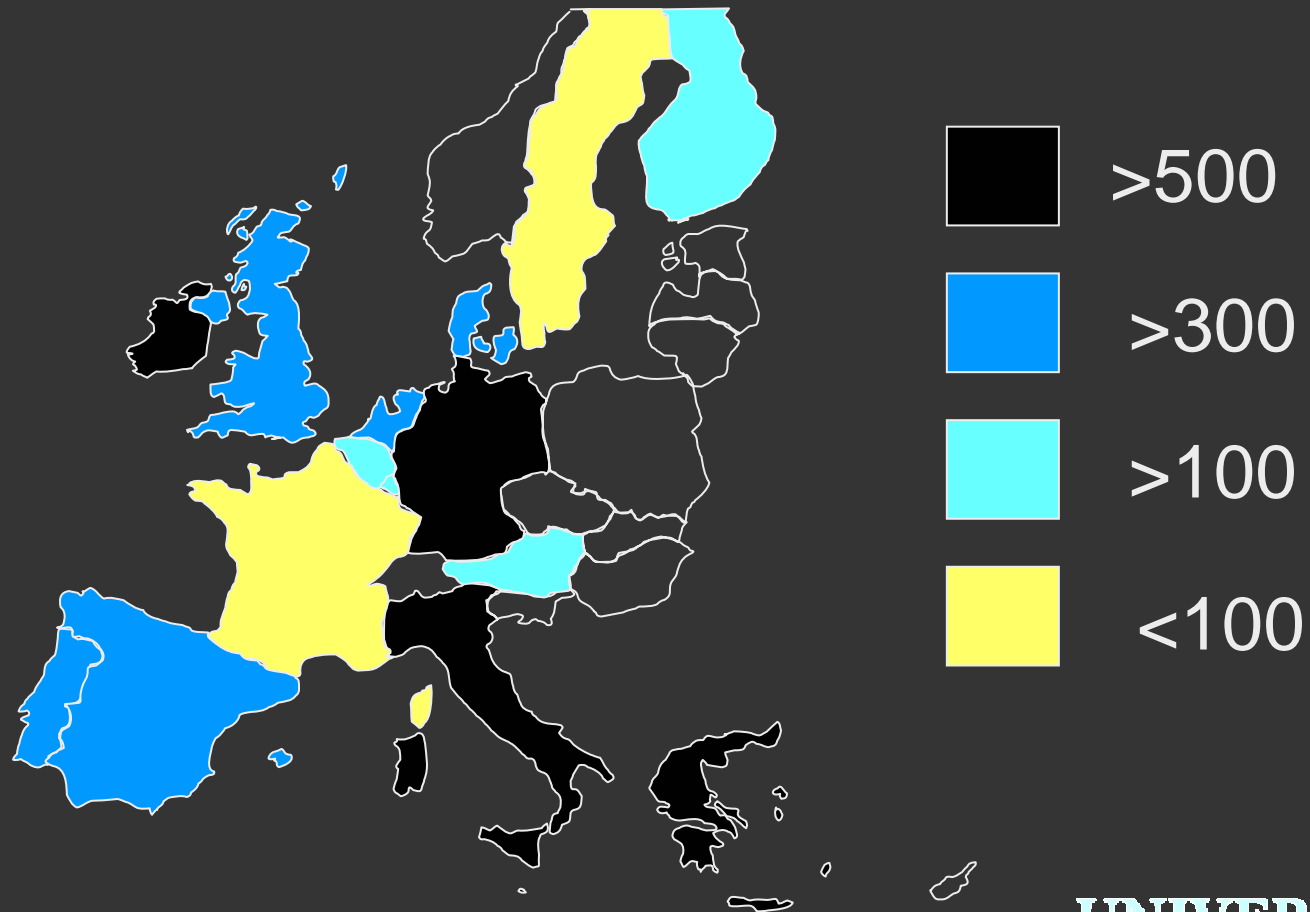
Ratio of domestic to industrial prices



Benchmarks for Investment

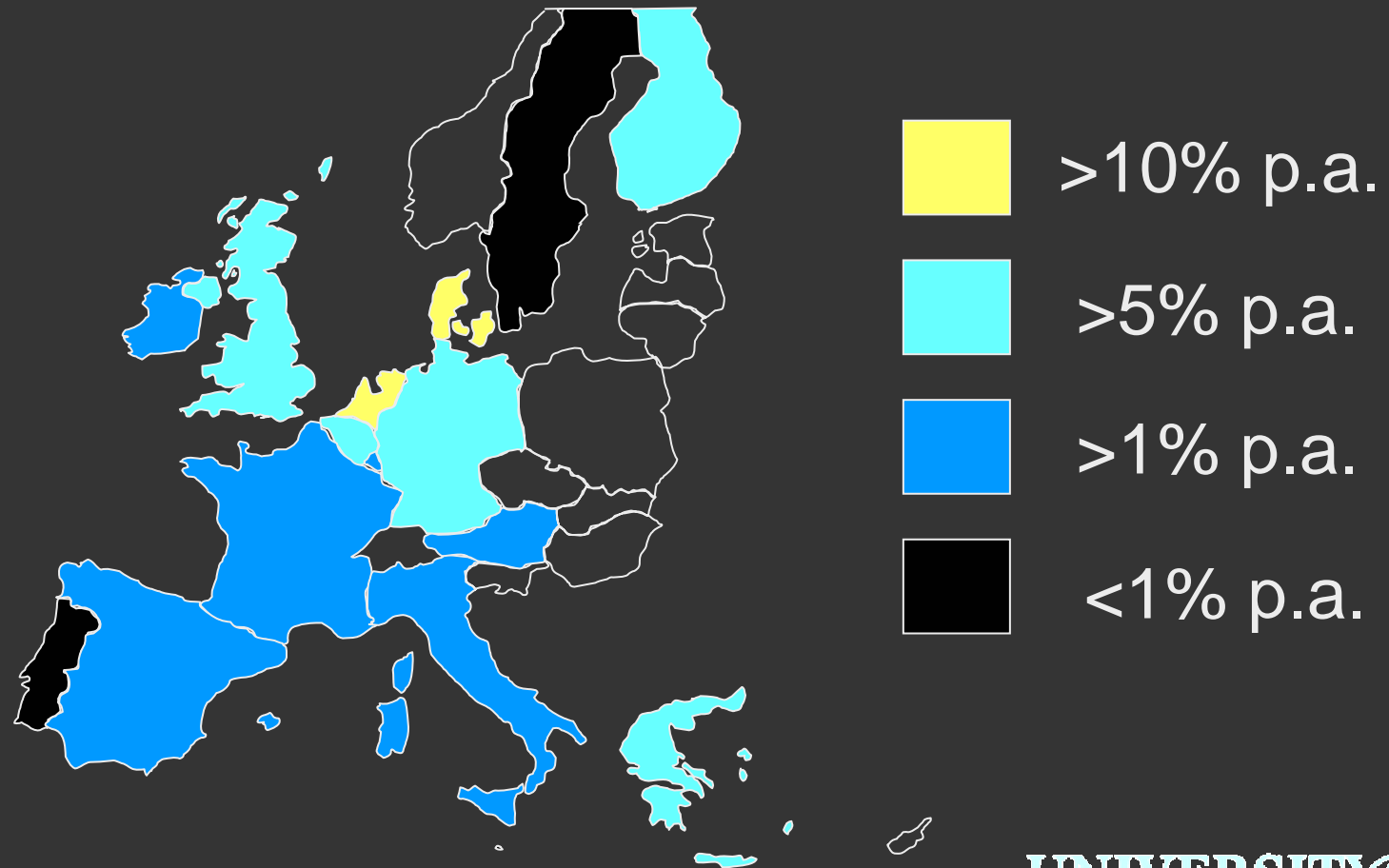
- Investment in Research and Development
- Carbon emissions per MWh
- Growth of renewable electricity sources
- Electricity intensity in MWh per € of GDP
- Necessary investment over next 5/10 years

CO₂ emissions, g/kWh



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Growth of renewable power, 1990-2002



Conclusions

- Benchmarks are signals of performance
- Correlation is not causation
- A good selection can minimise the number of misleading signals