

Energy Trilemma:

How to make Europe more secure,
sustainable and competitive



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Before we go...

Do you prefer to listen Jazz or Symphony?

EU-28 top performers per dimension

EU-28 Top 5

- 6 Sweden
- 8 Austria
- 9 Denmark
- 10 France
- 13 Ireland

Environmental Sustainability

Energy security

EU-28 Top 5

- 4 Romania
- 6 Denmark
- 9 United Kingdom
- 12 Czech Republic
- 15 Slovakia

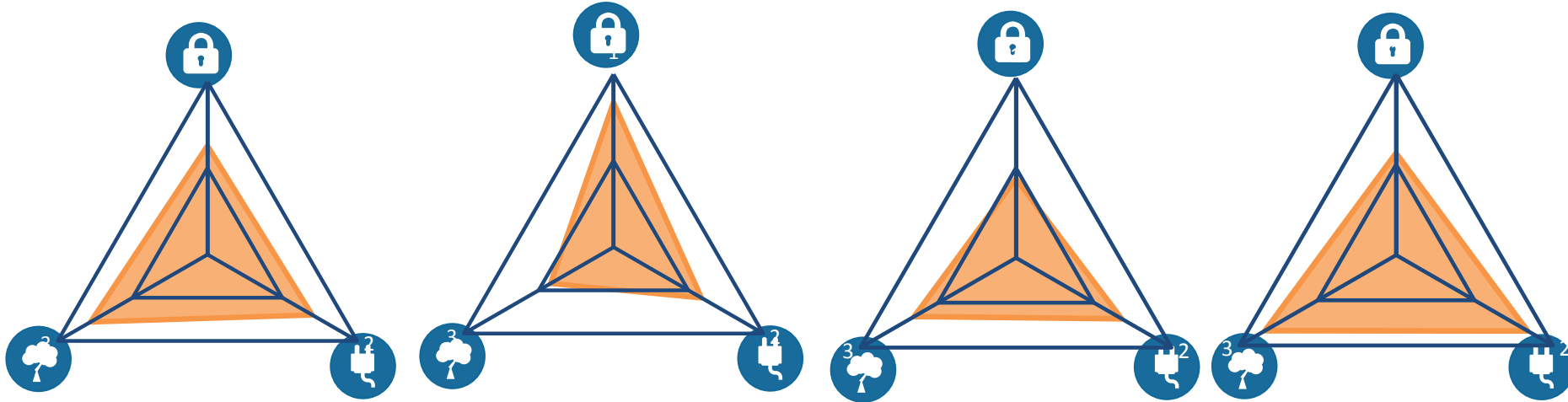
EU-28 Top 5

- 5 Luxembourg
- 12 France
- 14 Austria
- 17 Finland
- 20 Sweden

Energy equity



Performance of EU-28 countries



Northern Countries

- 5 Denmark

- 2 Sweden

- 4 United Kingdom

- 8 Finland

- 22 Ireland

- 37 Lithuania

- 43 Latvia

- 75 Estonia

Eastern Countries

- 17 Slovakia

- 28 Czech Republic

- 33 Hungary

- 42 Poland

- 54 Romania

- 67 Bulgaria

Southern Countries

- 15 Spain

- 24 Slovenia

- 25 Portugal

- 29 Italy

- 32 Croatia

- 51 Greece

- 63 Cyprus

- 65 Malta

Western Countries

- 7 Austria

- 9 France

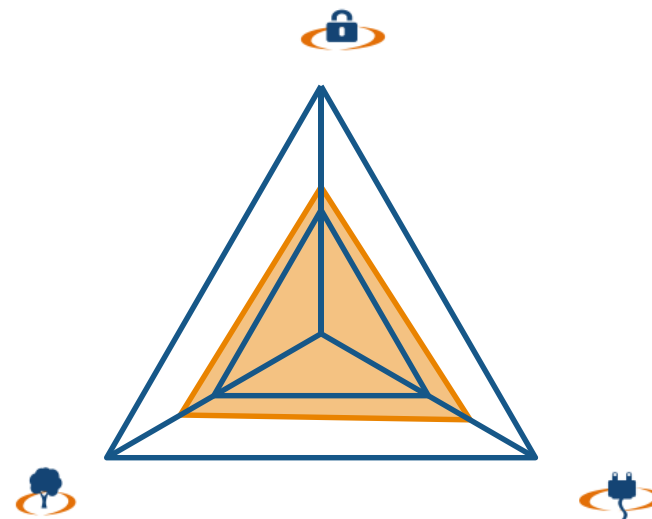
- 11 Germany

- 14 Netherlands

- 21 Belgium

- 18 Luxembourg

Slovenia on rank 24



	2012	2013	2014	Trend	Score
Energy security	57	60	52	↑	B
Energy equity	36	27	40	↓	B
Environmental sustainability	37	42	45	↓	B
Overall rank and score	23	25	24	'	BBB

The World Energy Scenarios

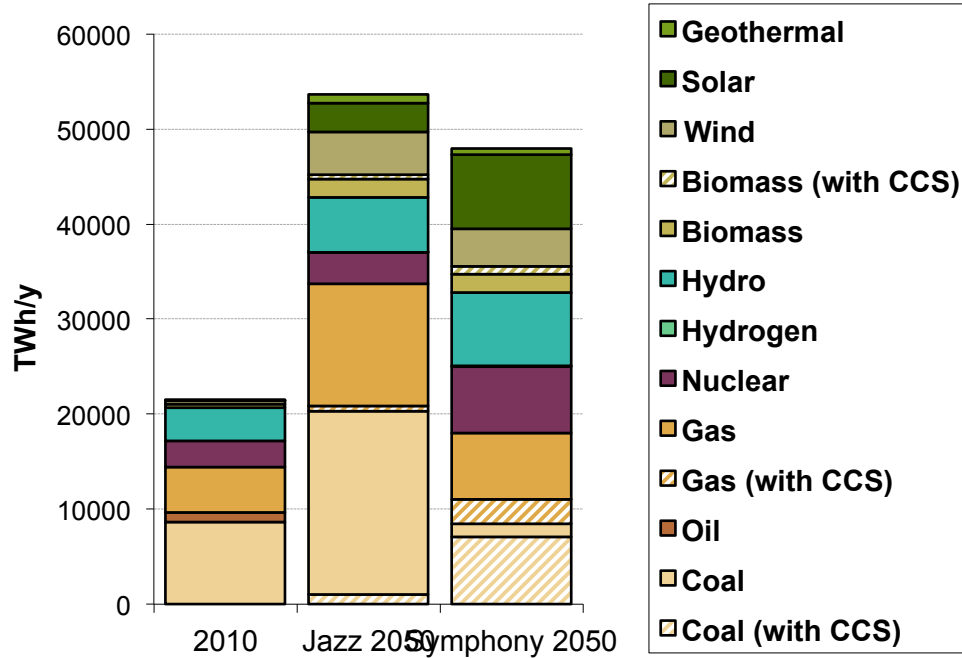


Brief outline of Global Scenario stories

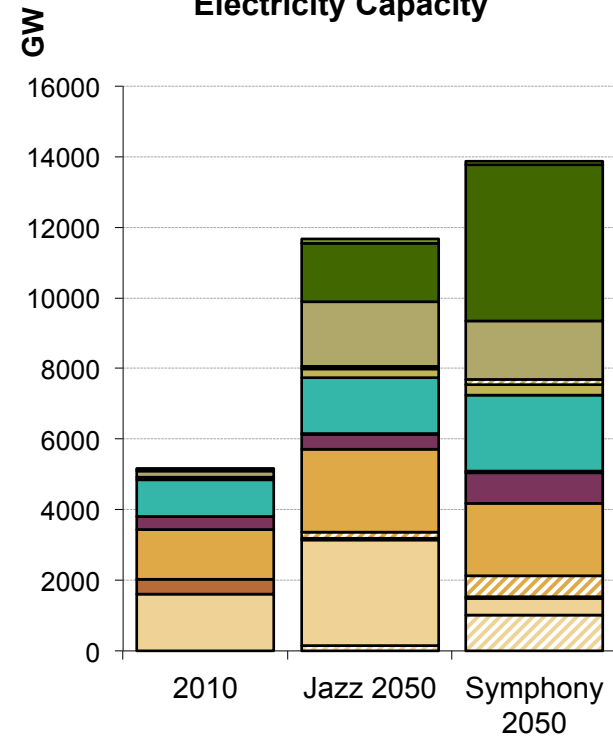
Jazz	Symphony
World where there is a consumer focus on achieving energy access, affordability, and individual energy security with the use of best available energy sources.	World where there is a voter consensus on driving environmental sustainability and national energy security through corresponding practices and policies. There is an International Climate Change agreement by 2015
Main players are multi-national companies, banks, venture capitalists, and price-conscious consumers	Main players are governments, international agencies, local public-sector and private companies, NGOs and environmentally-minded voters
Technologies are chosen in competitive markets	Governments pick technology winners
Energy sources compete on basis of price & availability	Select energy sources are subsidised and incentivized by governments

Global Electricity Production and Capacity

Electricity Production



Electricity Capacity



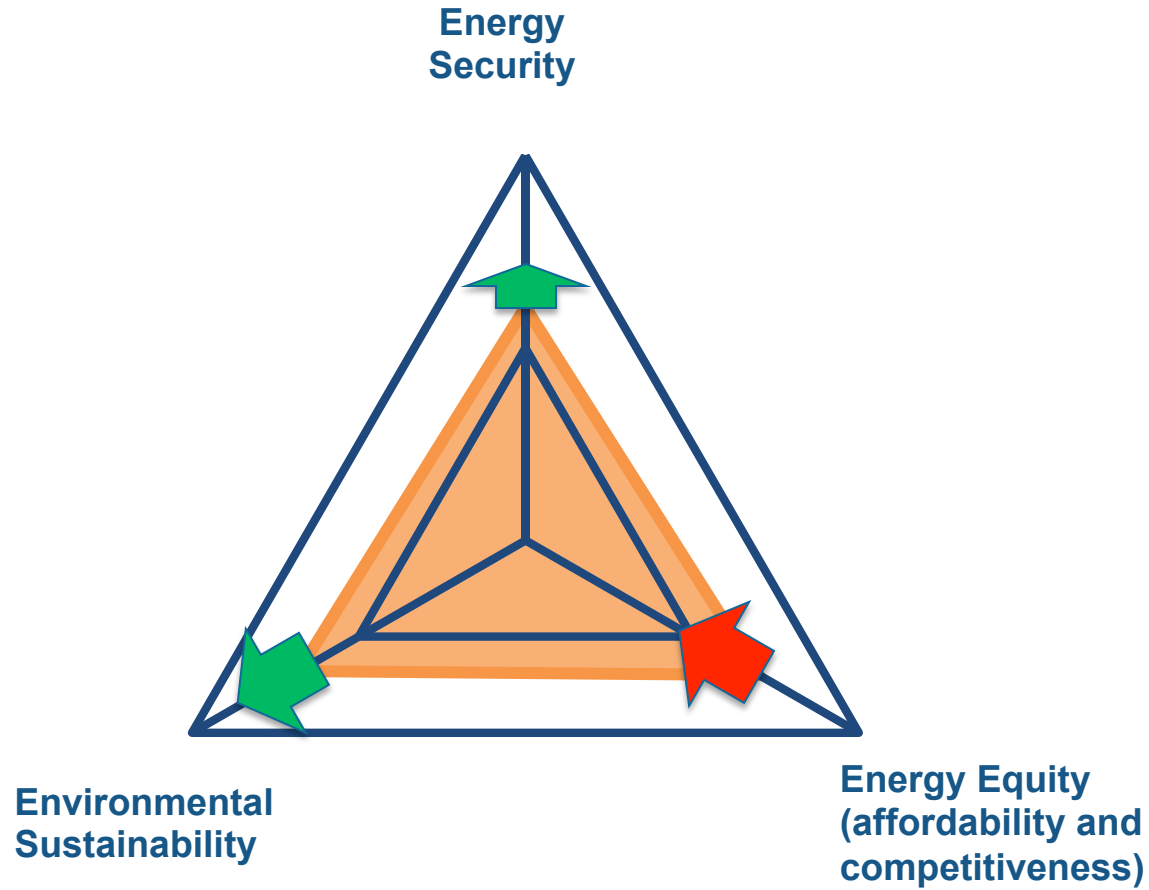
Jazz

coal: expected to remain dominant
 gas: share increases (esp. N. America),
 nuclear: mainly non-OECD

Symphony

coal: share drops, CCS increasingly required
 nuclear: increasing; led by governments
 More stable & quicker transition to renewables

Symphony versus Jazz: Governance implications



Concerns over „European Symphony“

- ▶ **Concern 1: if the EU continues with „28 Symphonies“ and the US continues with „Jazz“, then European competitiveness will be strongly hampered**

If „Jazz“ delivers lower energy prices to the US, then energy intensive industries will leave from Europe. As a result, European energy consumption (and emissions) will decrease more than expected, which increases unemployment and makes the expectation of high CO₂ prices in the EU ETS unrealistic.

- ▶ **Concern 2: Political and regulatory risks may distort the investment climate in the EU Energy Sector**

„Symphony“ is very much influenced from political cycles and priorities. Constant „new market designs“ hinder new investments in energy sector.

- ▶ **Concern 3: European Energy Union Strategy requires widespread political leadership, change of governance from national to regional (and European) level**

EEU Strategy is an Action Plan, but lacks general (long-term) political objectives in terms of energy security and affordability of energy prices. It also requires that there will be more regional policy making rather than national policy making

Some advice to the EU and national policy makers

- ▶ **New realities: volatile energy prices, geopolitics, new technologies and business models**
- ▶ **Take more regional strategy approach rather than national strategy approach**
- ▶ **Set clear targets also for energy security, affordability and competitiveness of energy prices**
- ▶ **Regulatory adjustments must only improve financing of diverse investments (in networks, supply and in production)**
- ▶ **European Commission should help to design national and regional energy and climate strategies together with national governments**

Thank you!

Any questions?

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