

# Energy Trilemma:

How to make Europe more secure,  
sustainable and competitive



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Energy Policy Consideration III  
24. April 2015, Ljubljana



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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

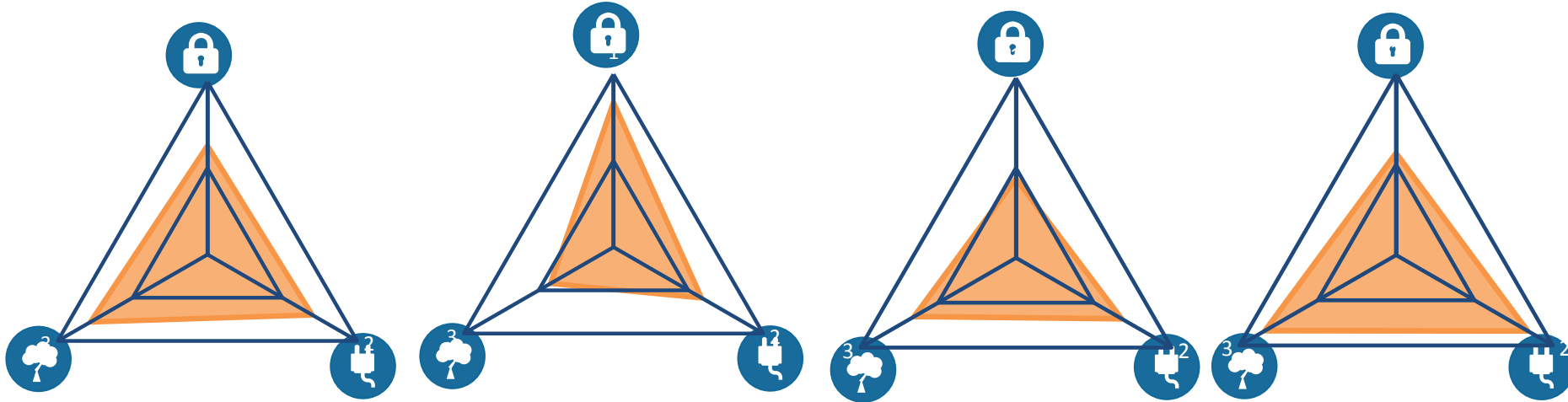
## EU-28 Top 5

- 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

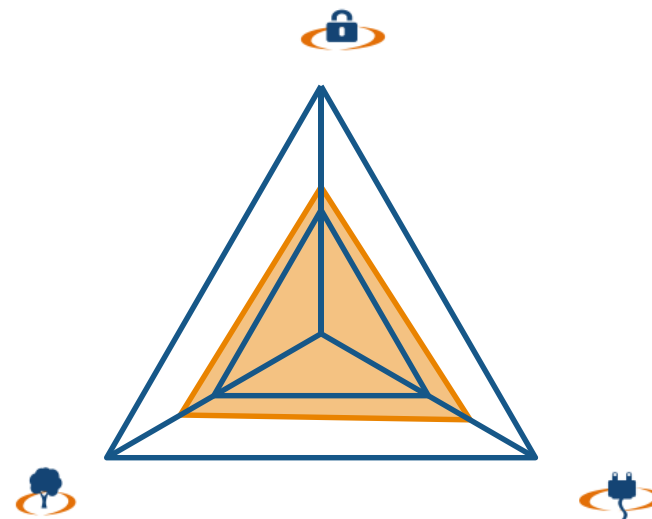
## Southern Countries

- 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
<b>Overall rank and score</b>	<b>23</b>	<b>25</b>	<b>24</b>	'	<b>BBB</b>

# The World Energy Scenarios



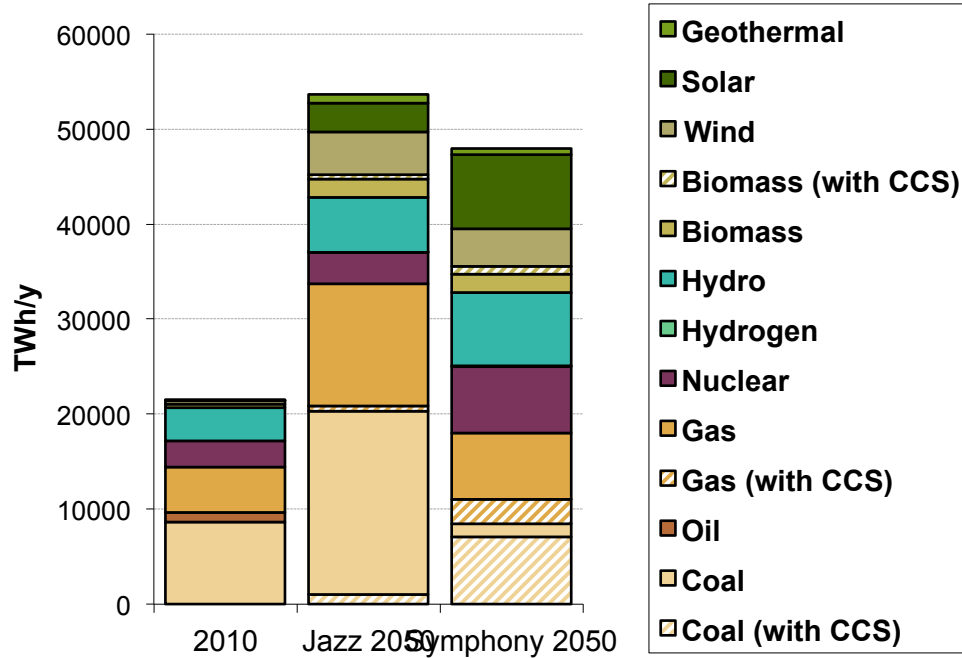
# Brief outline of Global Scenario stories

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
<b>Technologies are chosen in competitive markets</b>	<b>Governments pick technology winners</b>
<b>Energy sources compete on basis of price &amp; availability</b>	<b>Select energy sources are subsidised and incentivized by governments</b>

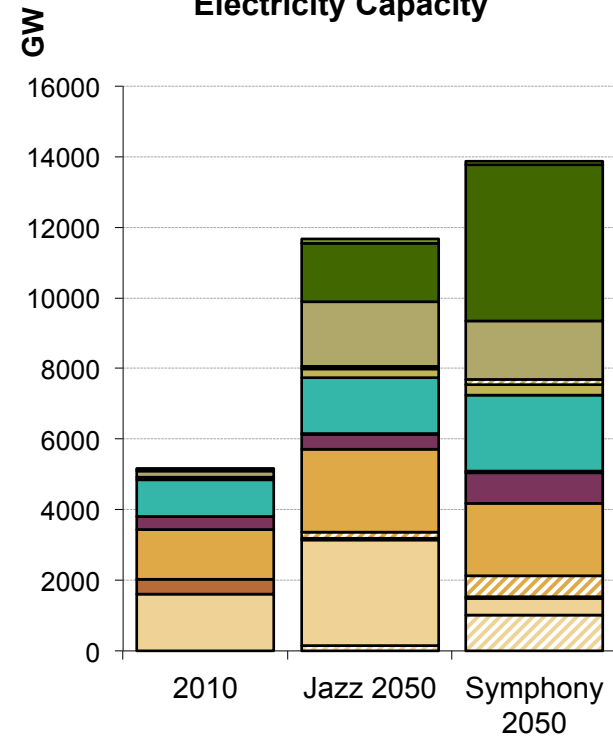


# Global Electricity Production and Capacity

## Electricity Production



## Electricity Capacity



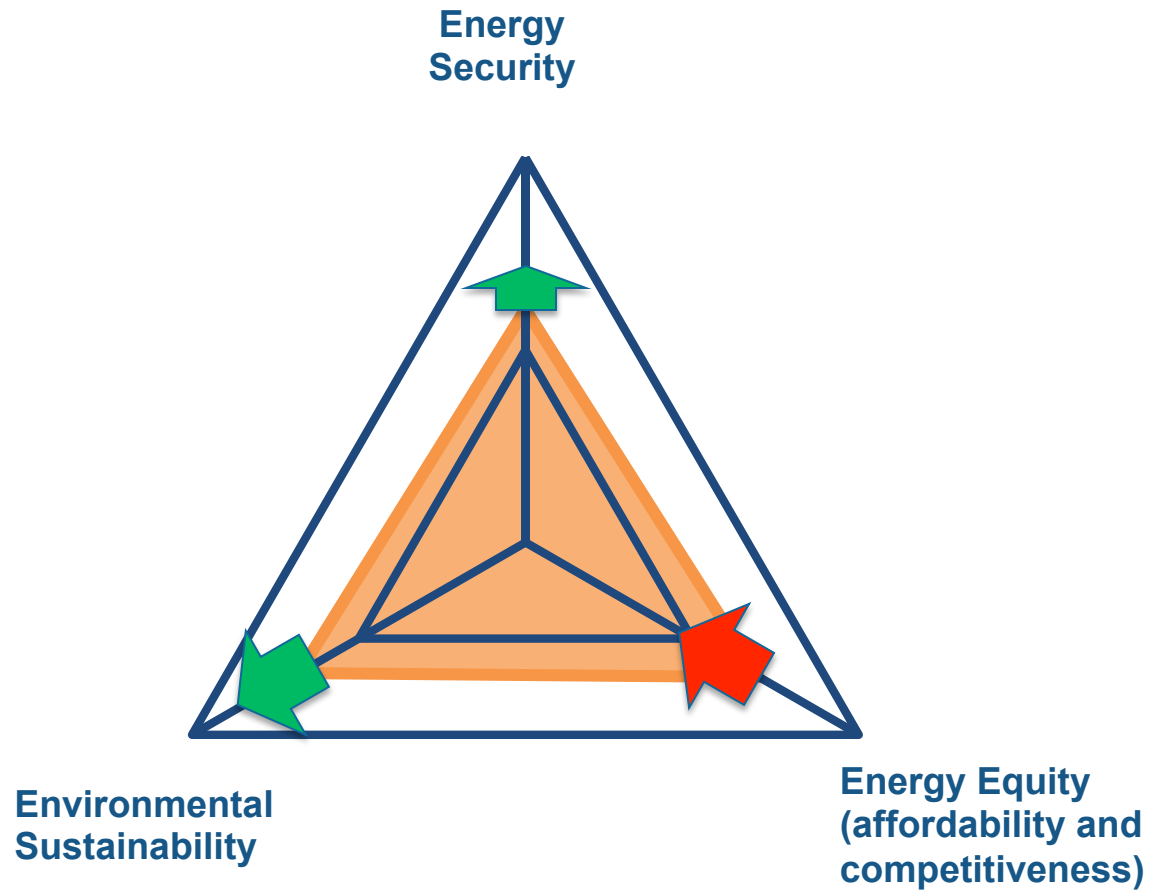
## Jazz

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 CO<sub>2</sub> 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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