# From Perceptions to Reality

## Assessment of the Energy Sector

Einari Kisel

9. April 2015
EY Baltic Utilities Seminar

WORLD ENERGY COUNCIL
CONSEIL MONDIAL DE L'ÉNERGIE
*For sustainable energy.*

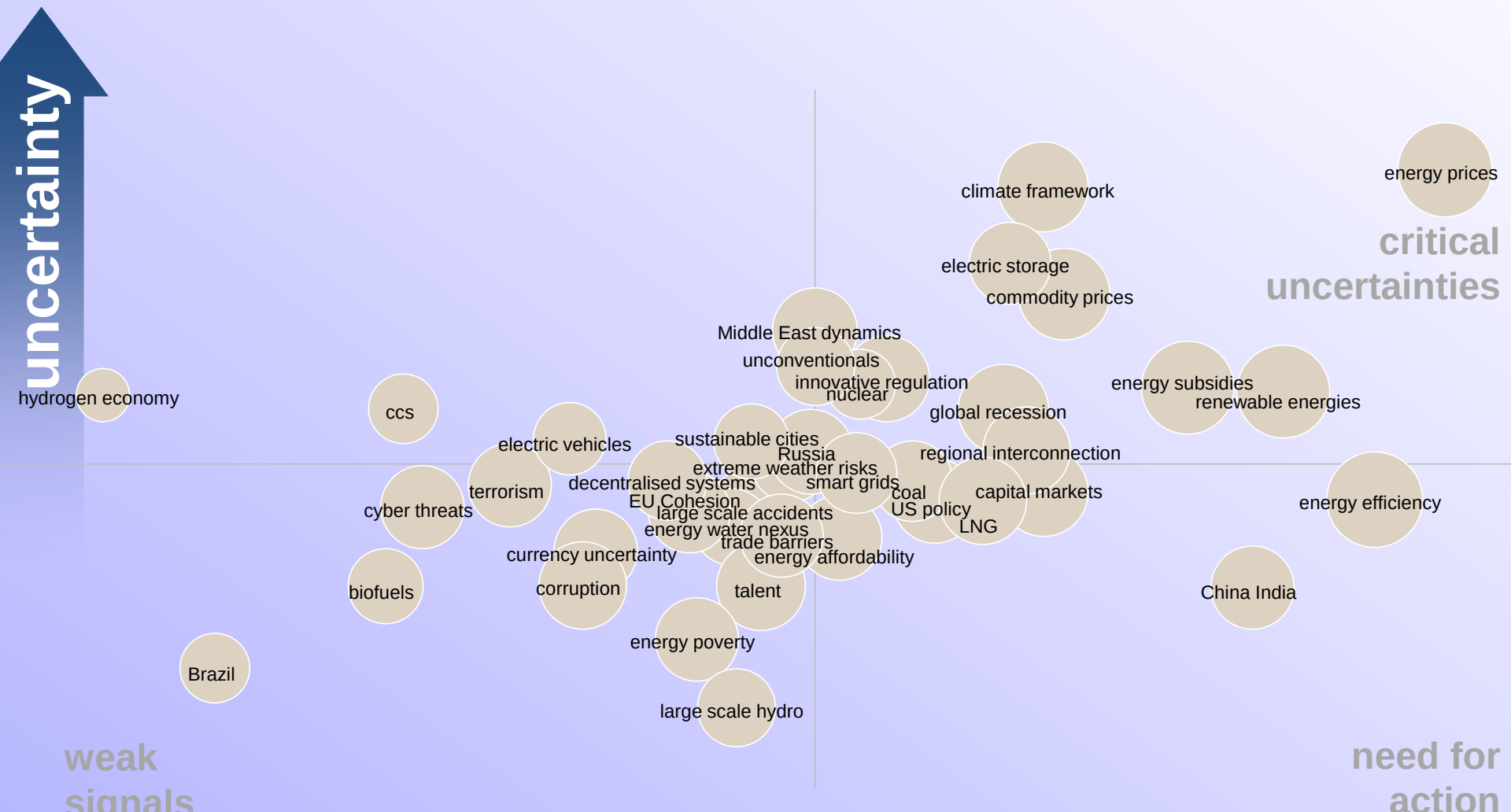
# Table of contents

- World Energy Issue Monitor 2015
  - World, EU-28
  - Differences in perceptions of the Baltic energy leaders
- World Energy Trilemma 2014
- Financing energy investments – challenges ahead

# World Energy Issue Map 2015

# World Energy Issues Monitor 2015

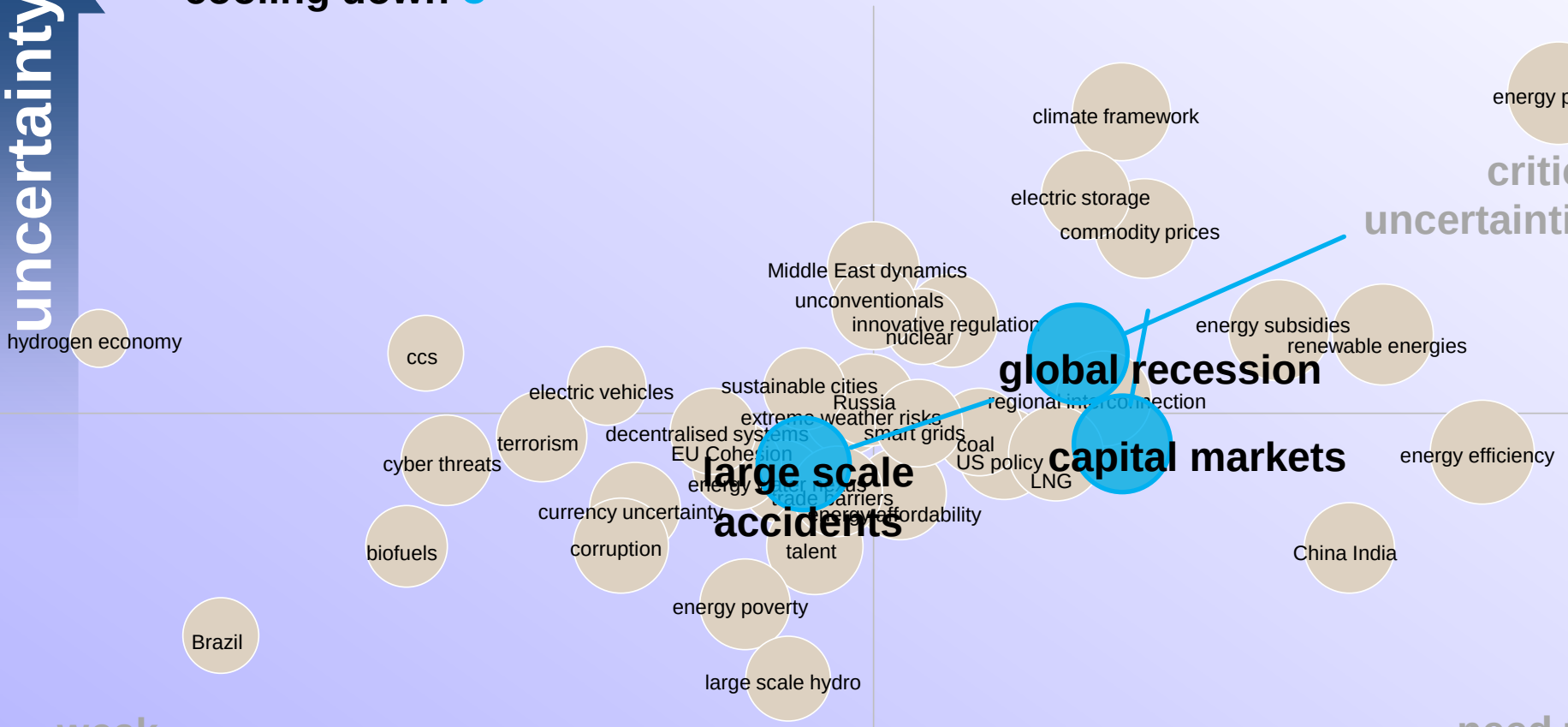
## World




- energy efficiency and renewables remain priority action items
- China / India effects remain critical action items

uncertainty

cooling down o~




- despite reduced concerns for global recession capital markets concerns remain of high impact
- concerns for large scale accident are cooling down

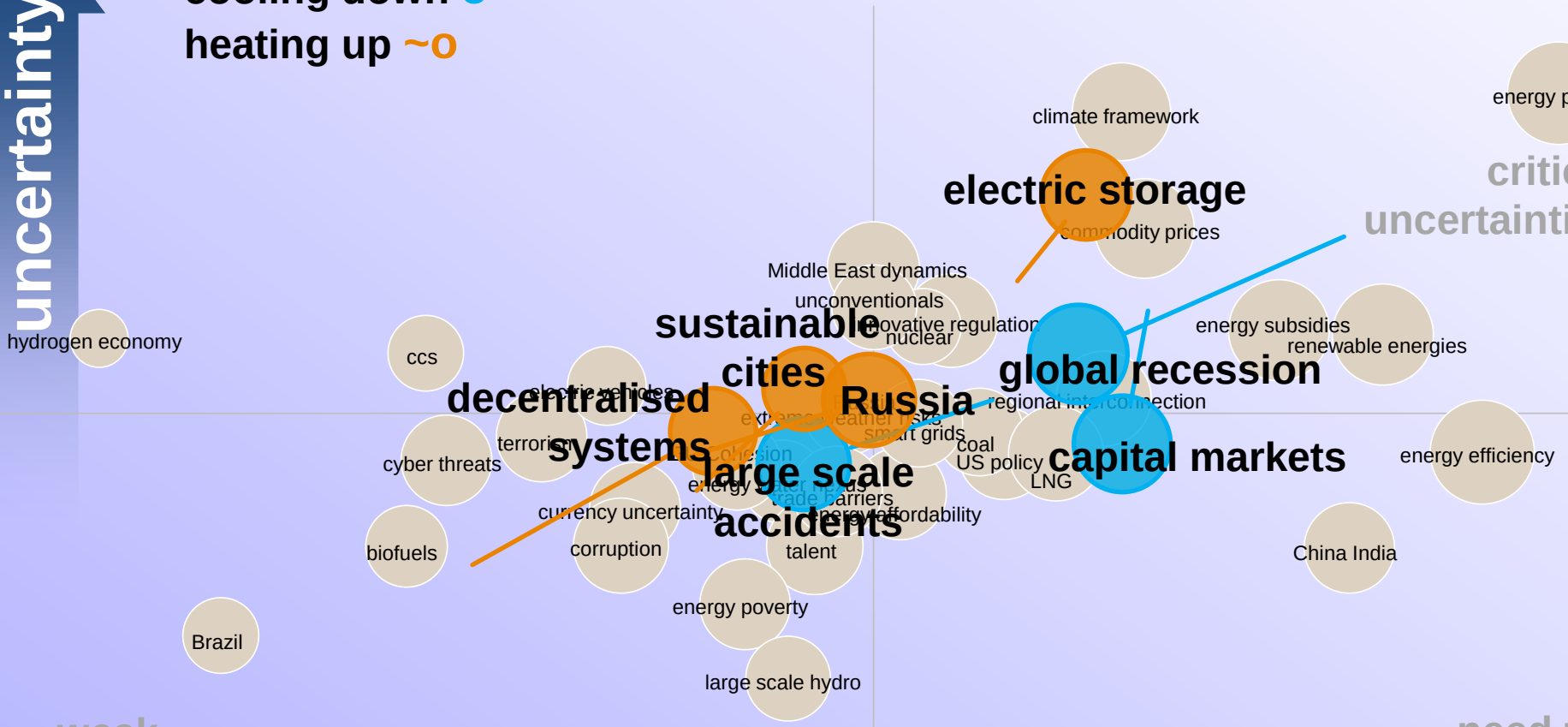
WORLD ENERGY COUNCIL
CONSEIL MONDIAL DE L'ÉNERGIE



impact

uncertainty

cooling down o~
heating up ~o




weak signals

need for action

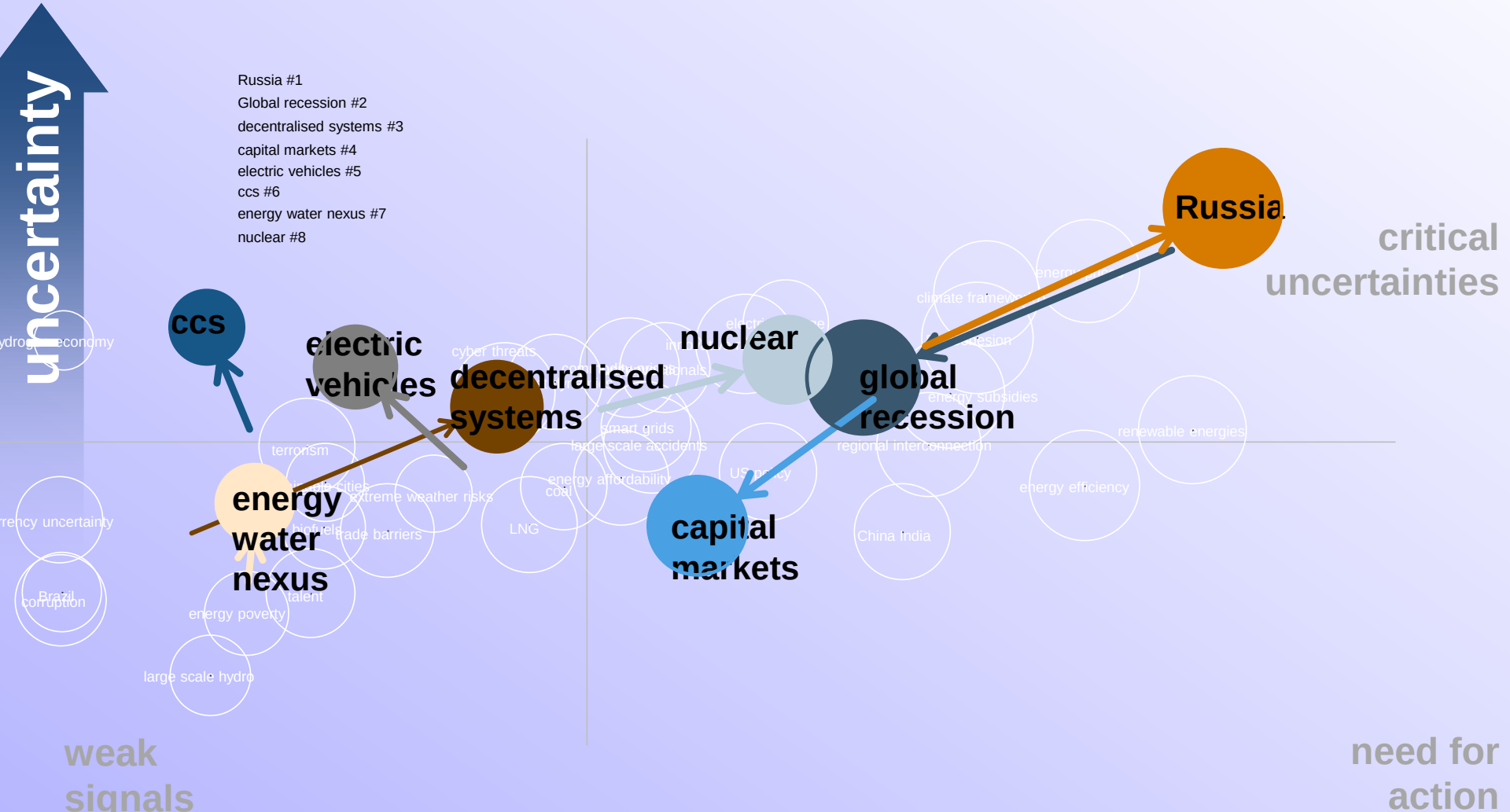
- tech-innovation (e-storage, sustainable cities & decentralises systems) is seen as more critical
- geopolitics (Russia) is higher on agenda

WORLD ENERGY COUNCIL
CONSEIL MONDIAL DE L'ÉNERGIE

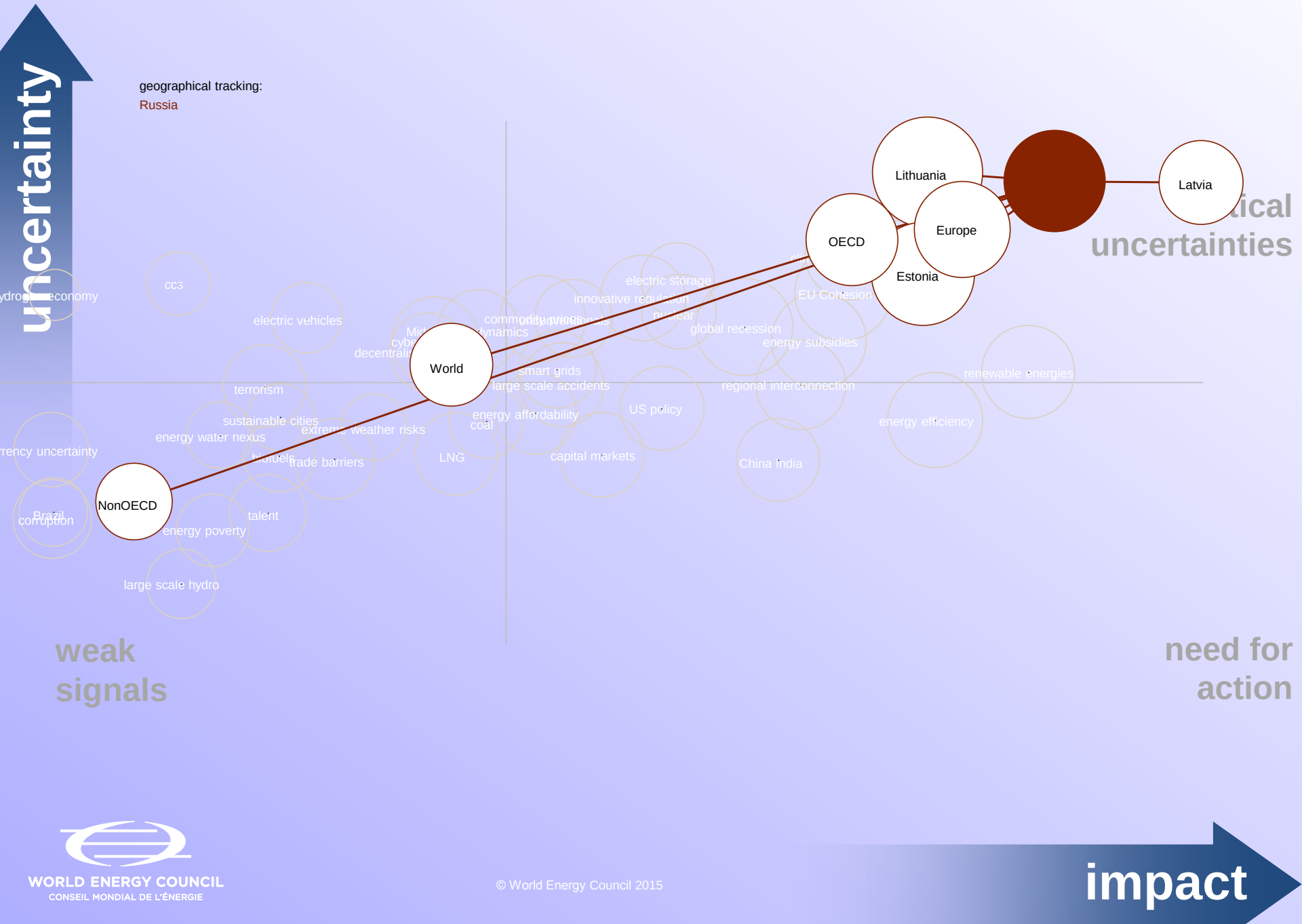


impact

# EU 28 maps

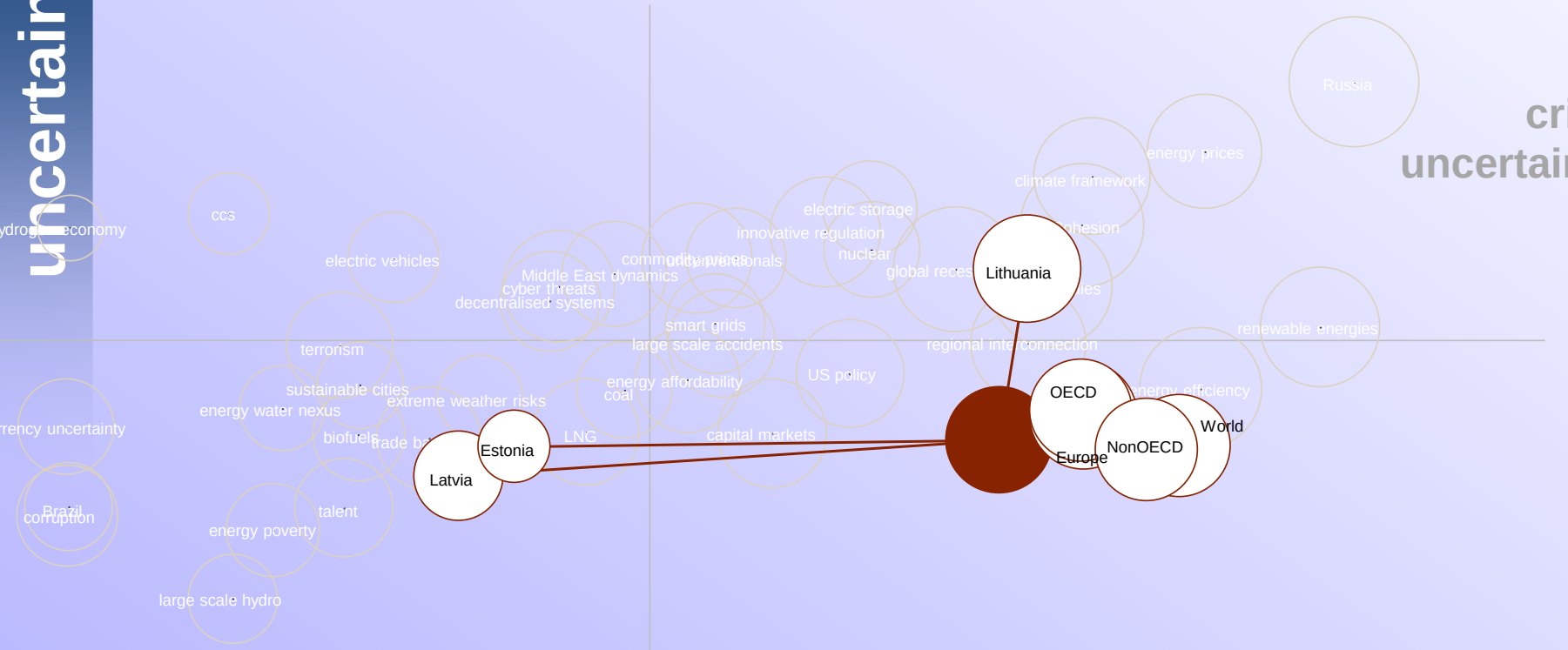


# The Baltic States maps



uncertainty

geographical tracking:
China India

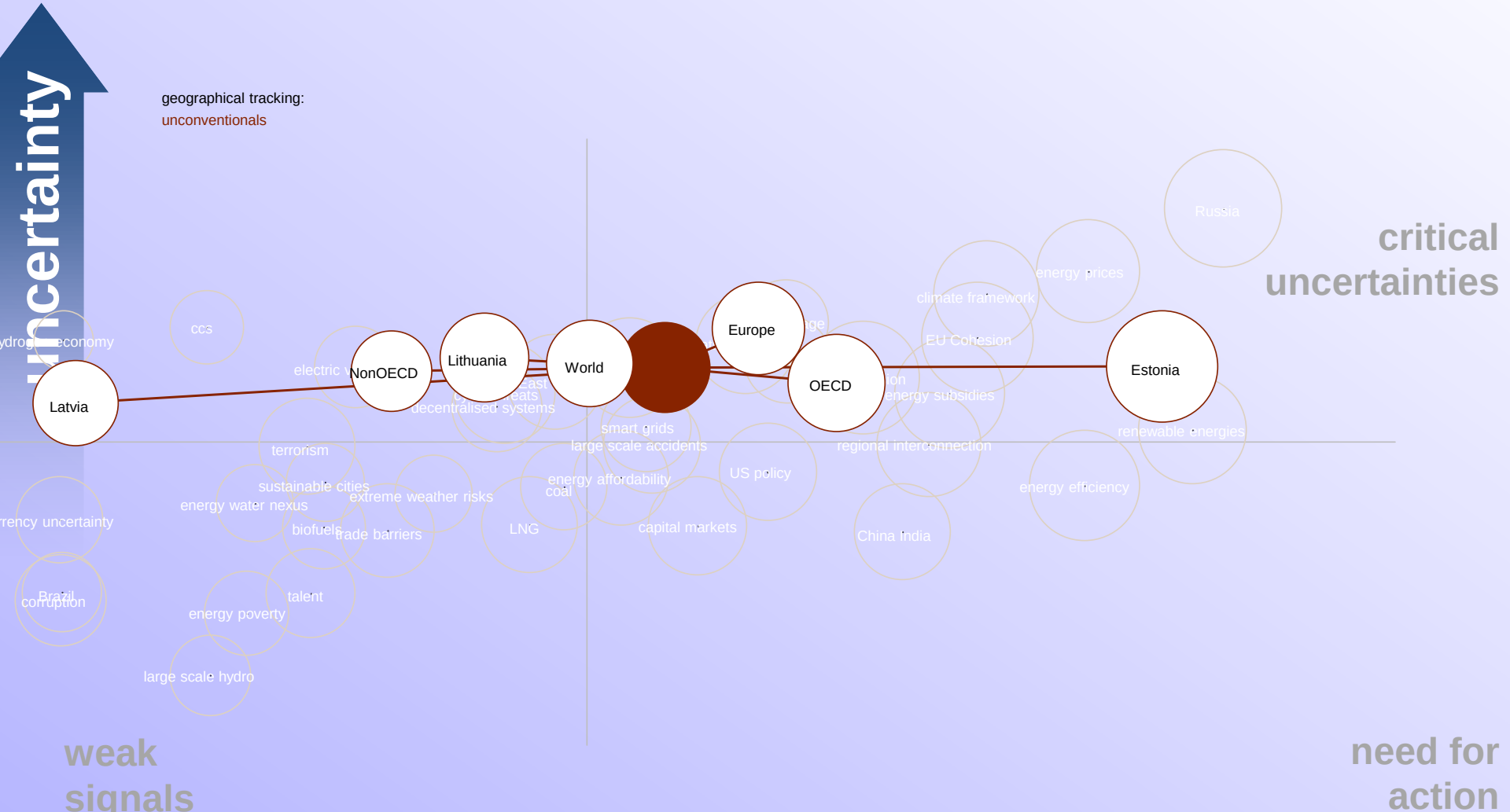


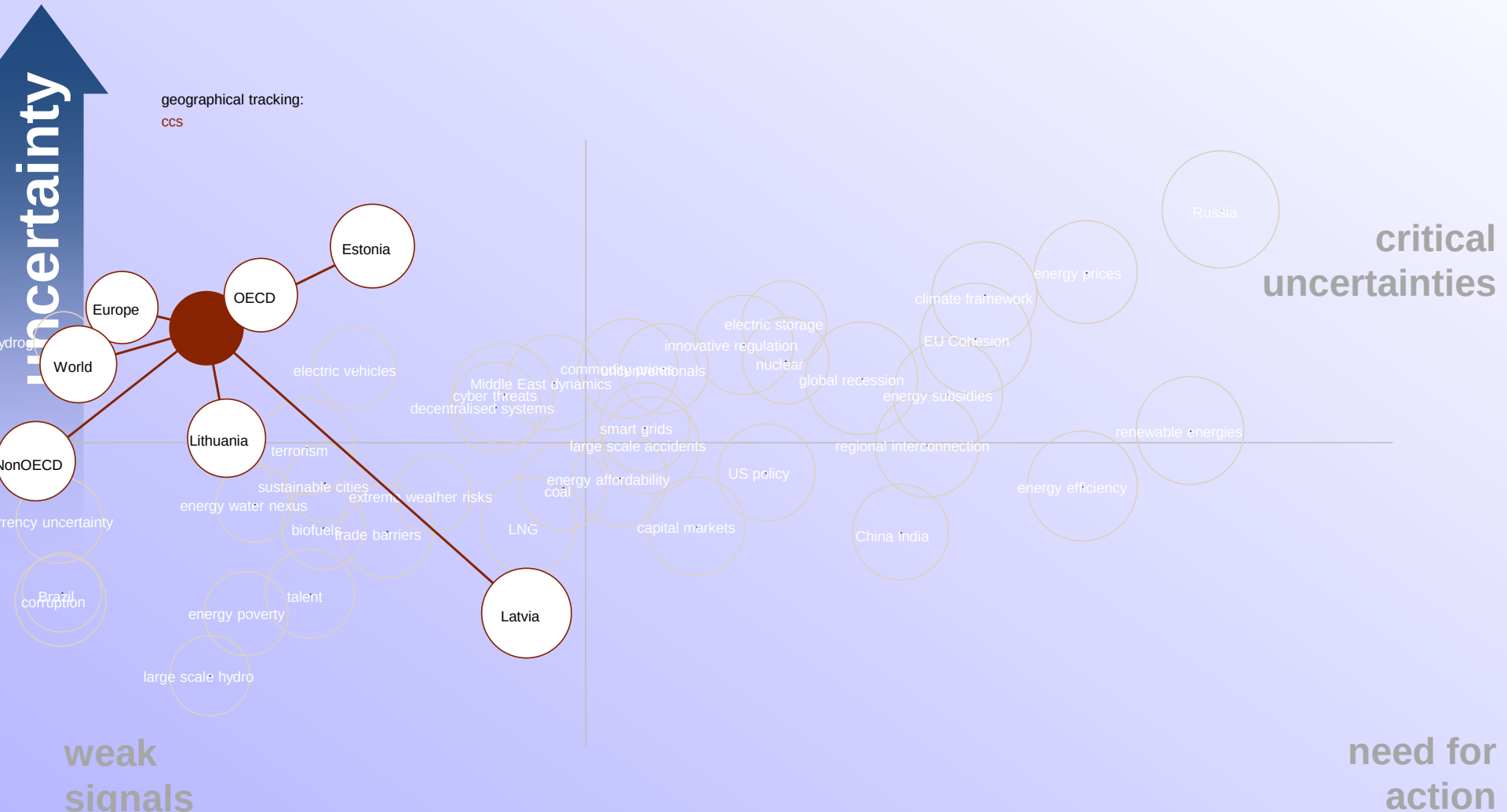

critical uncertainties

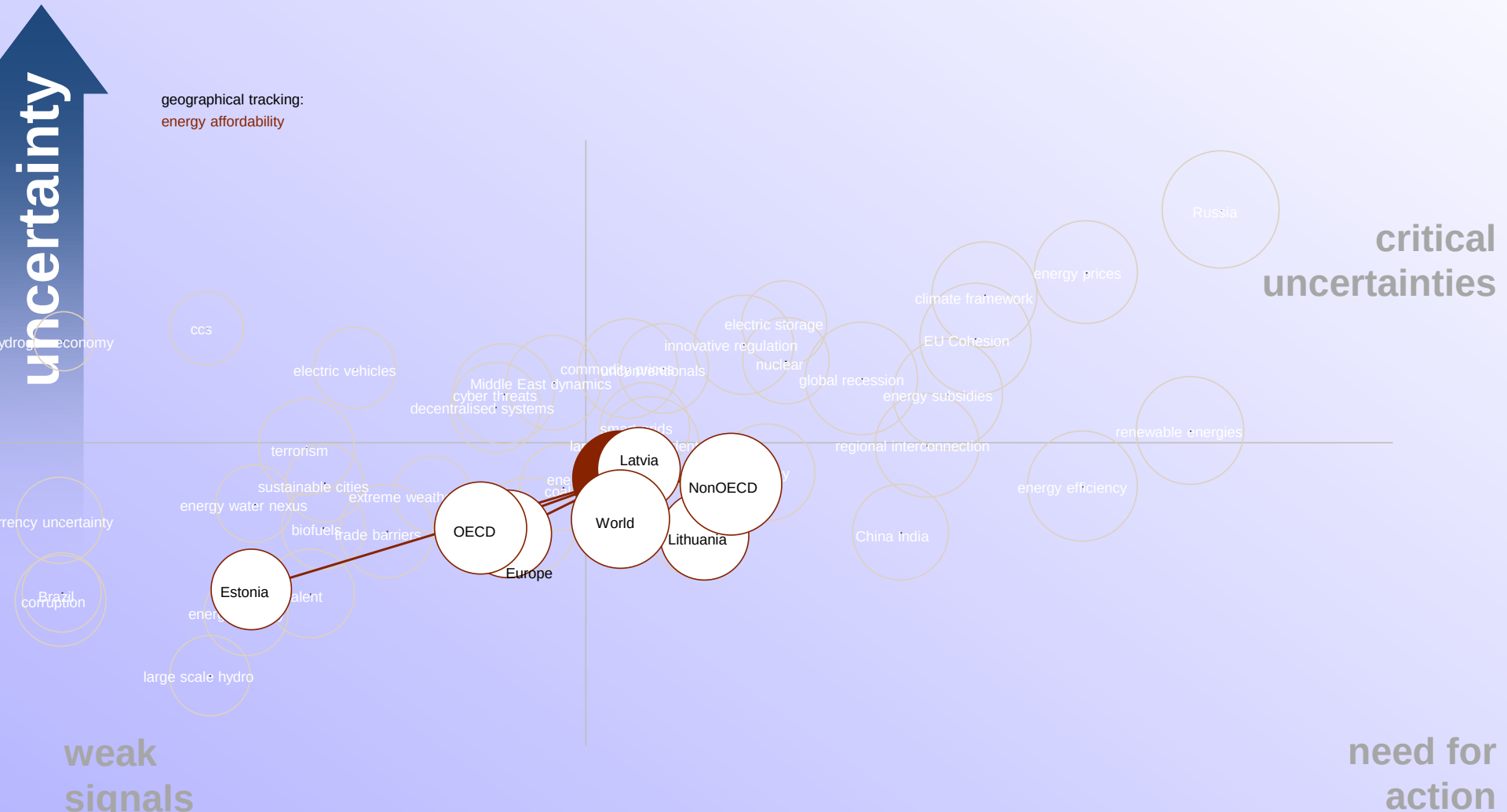
weak signals

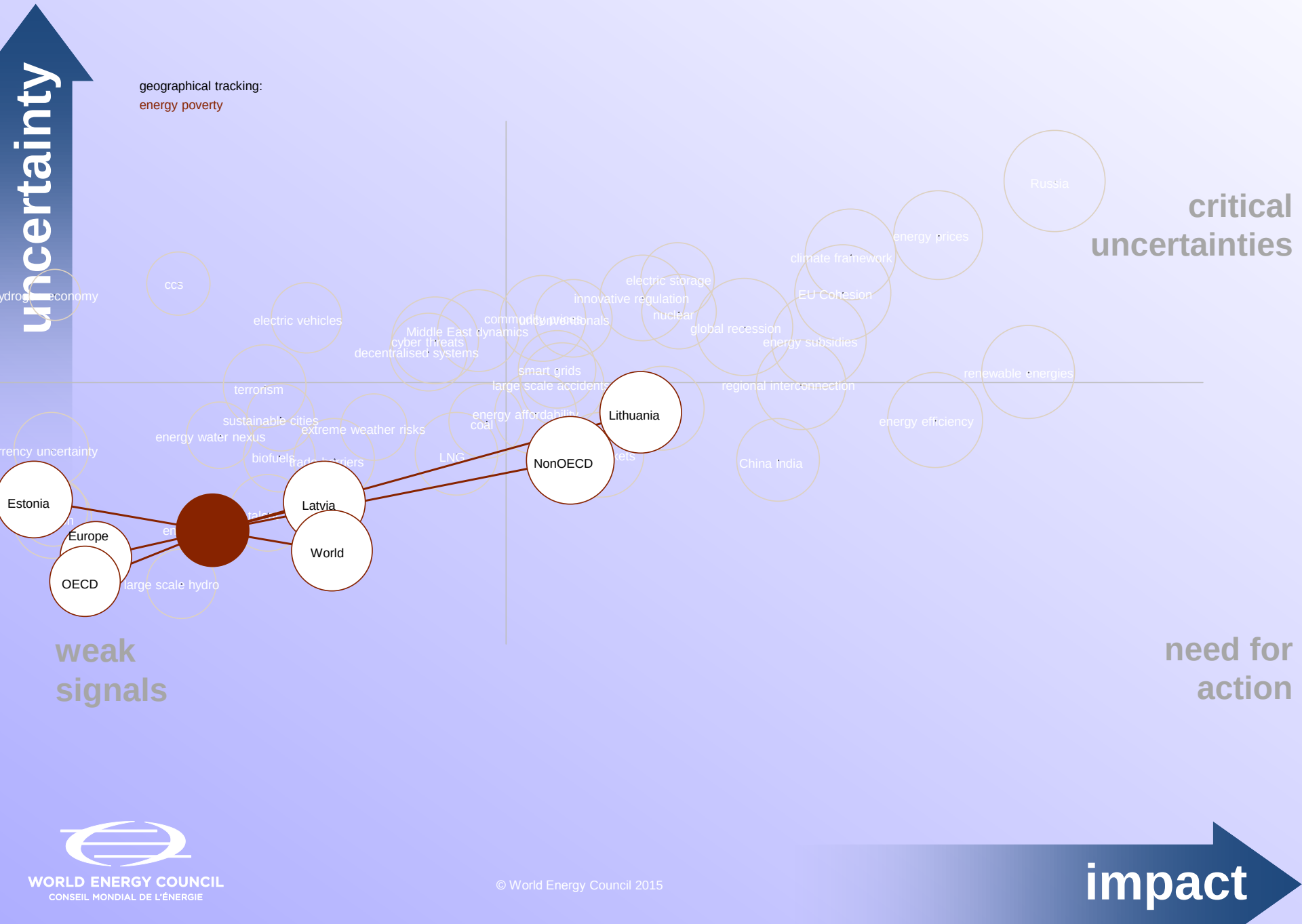
need for action

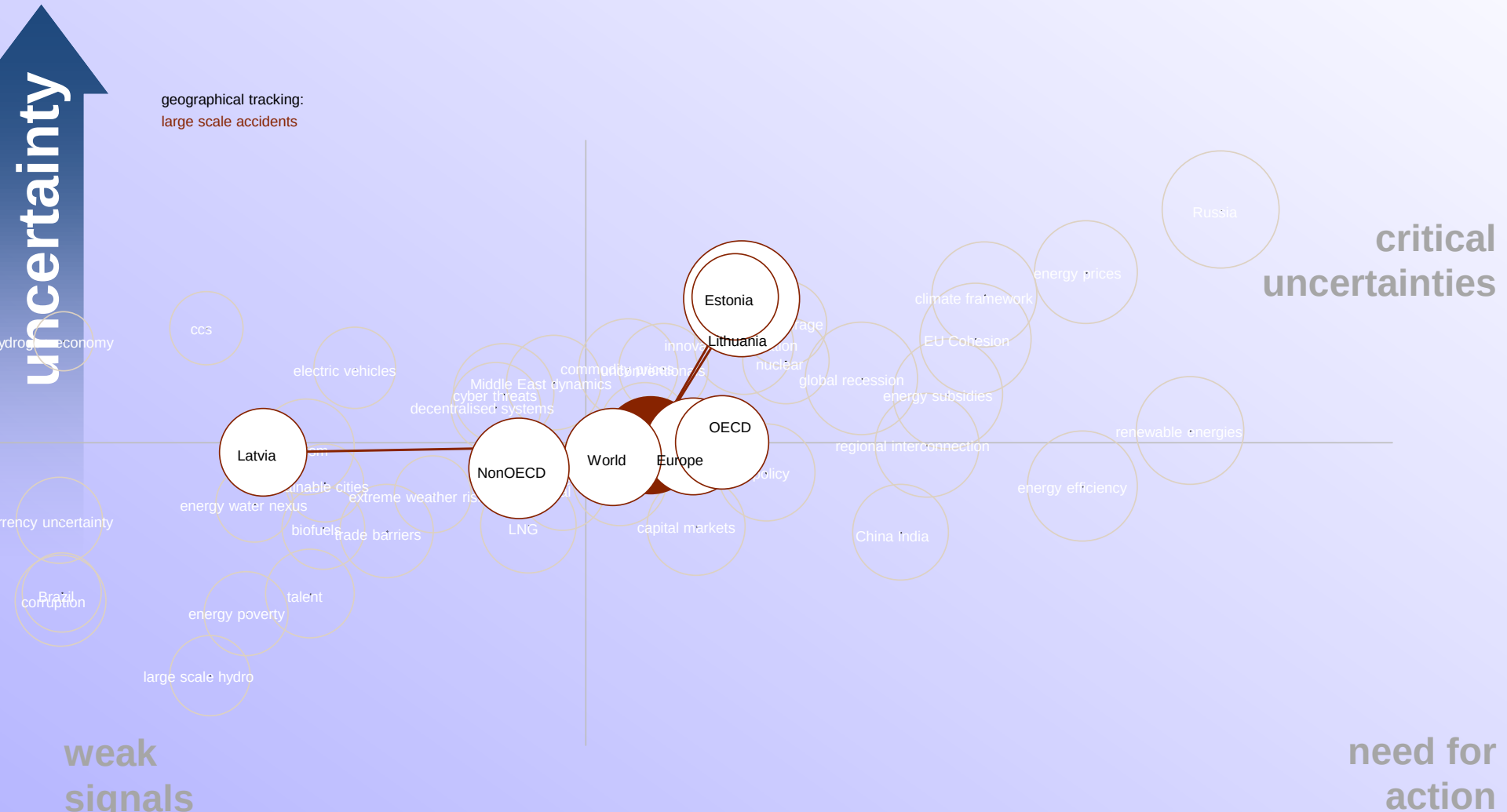
impact

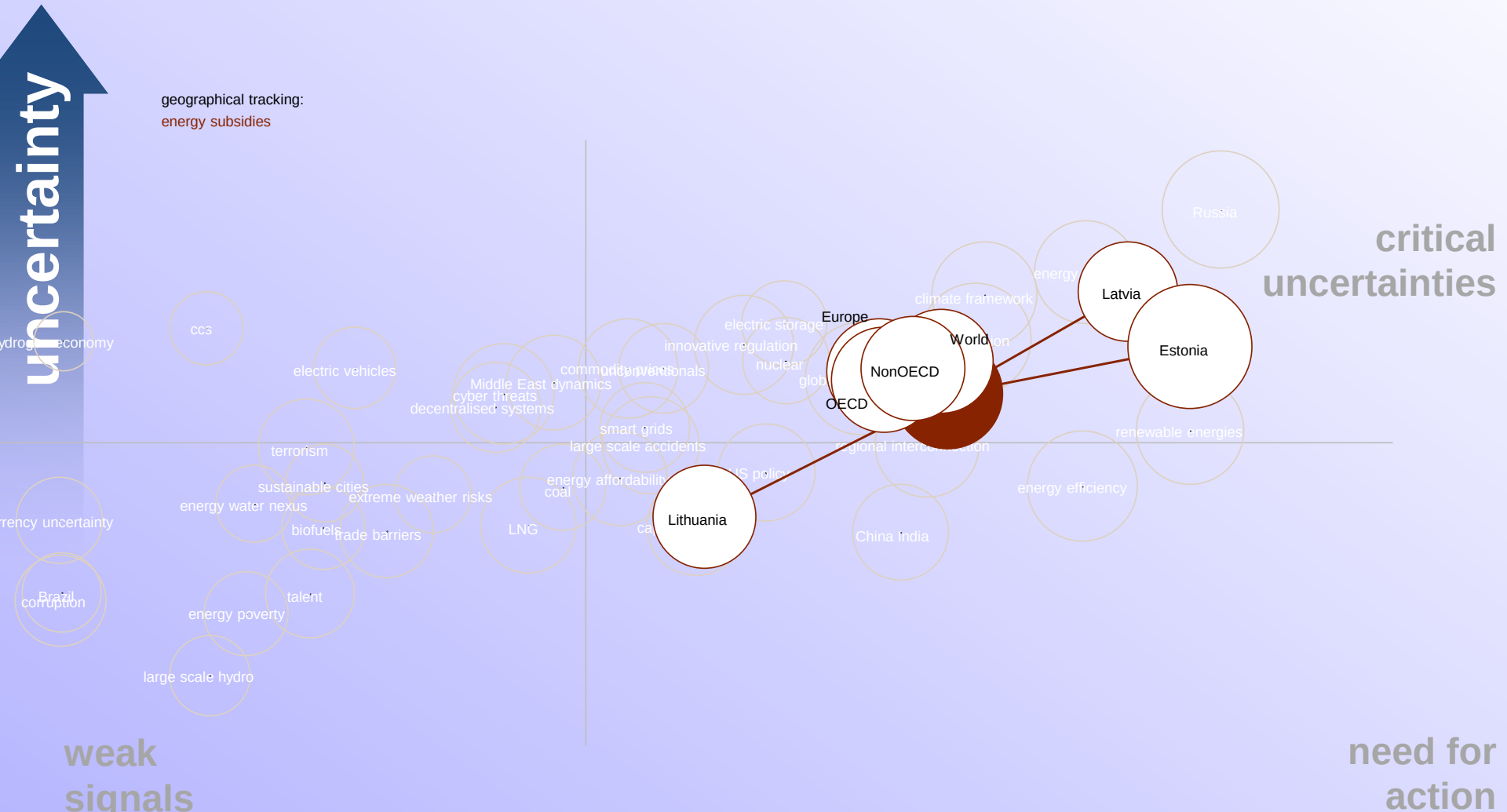


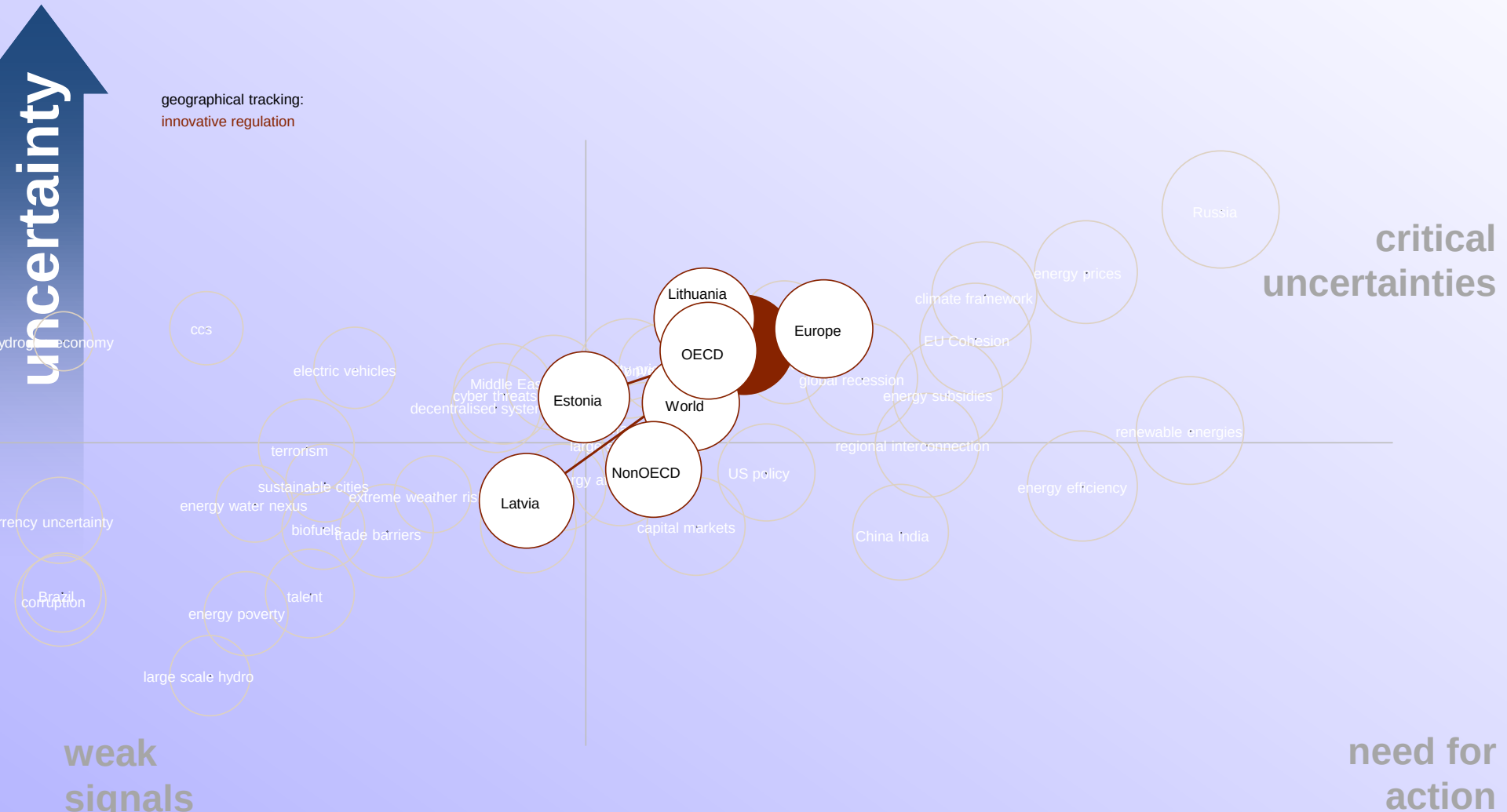


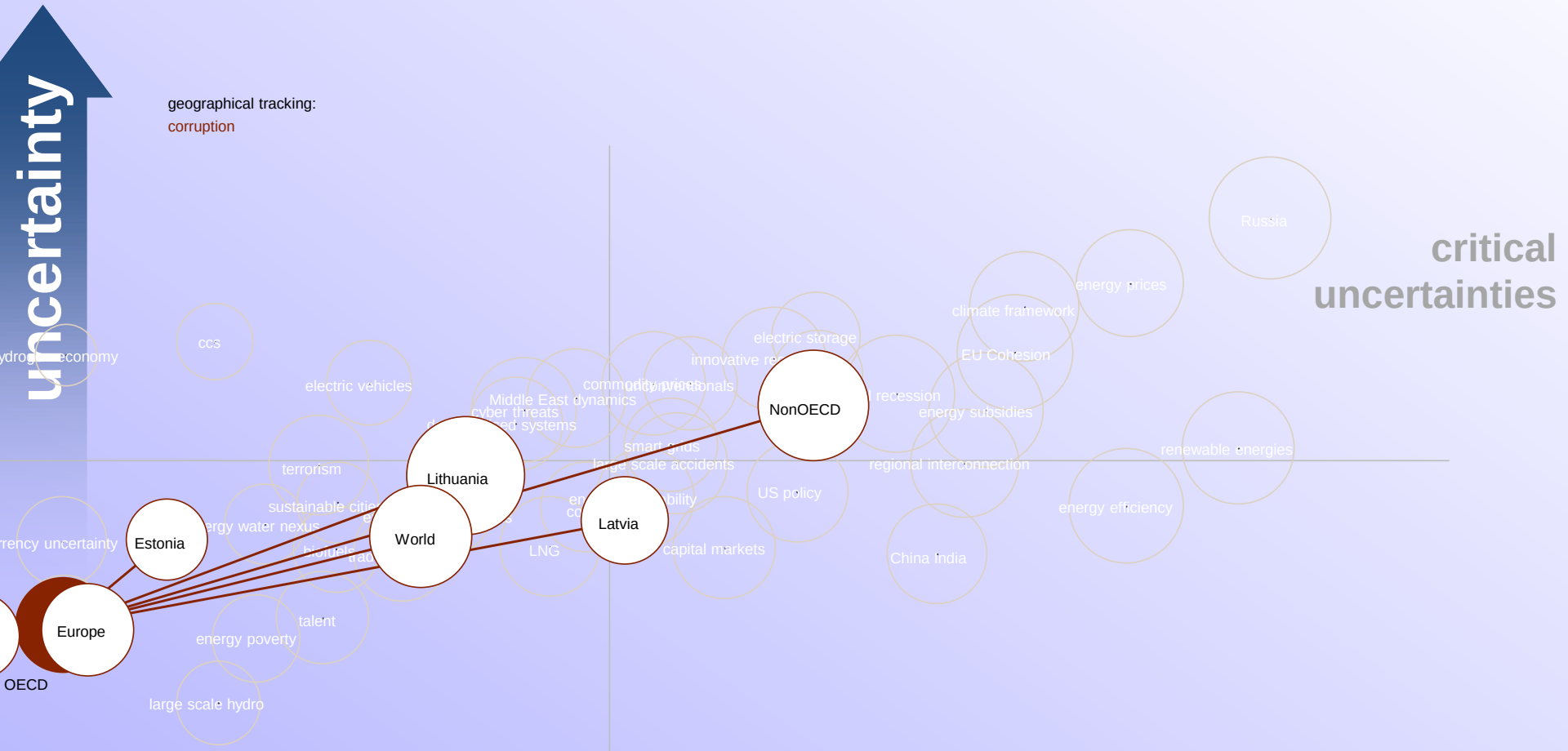


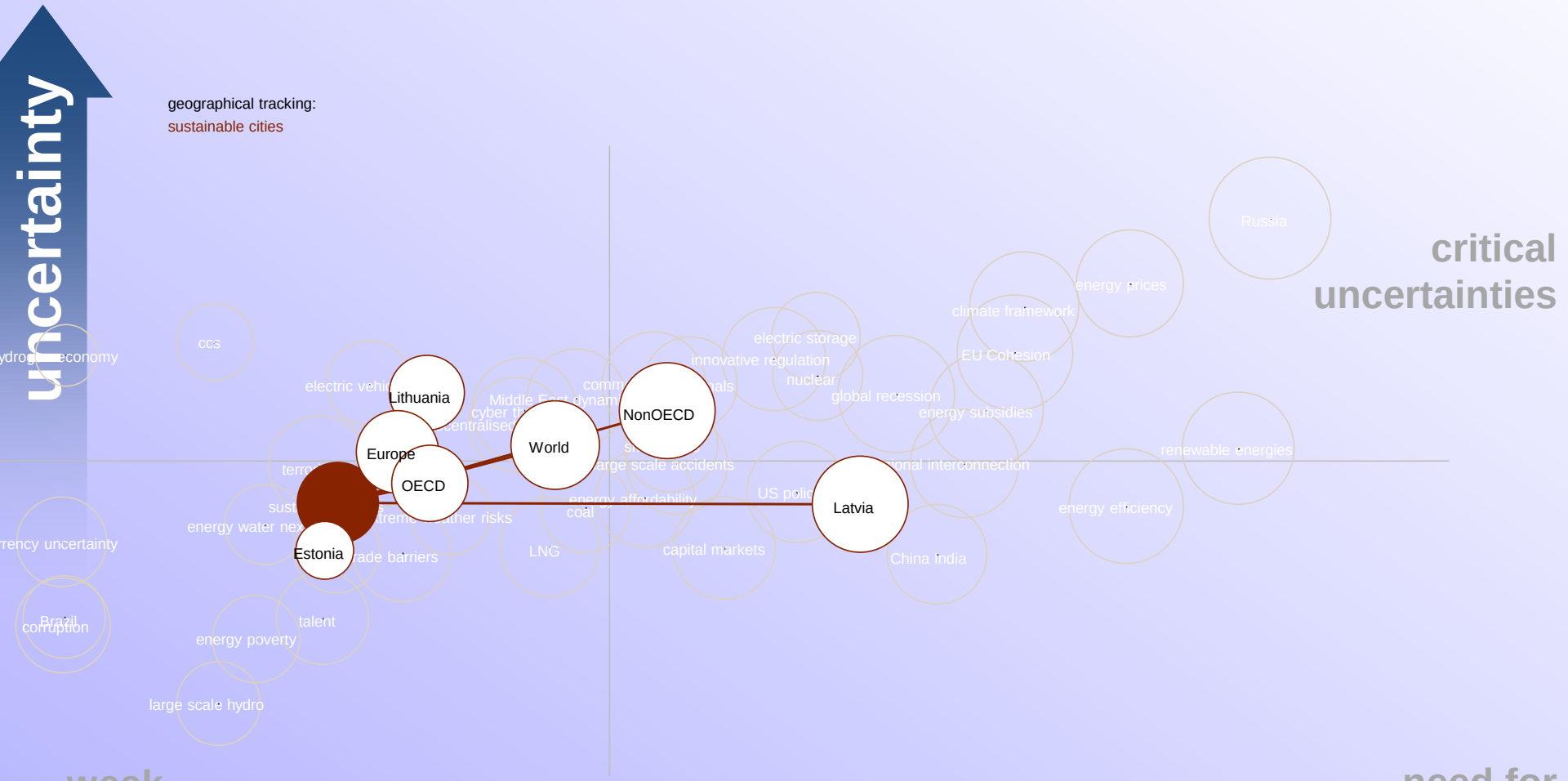






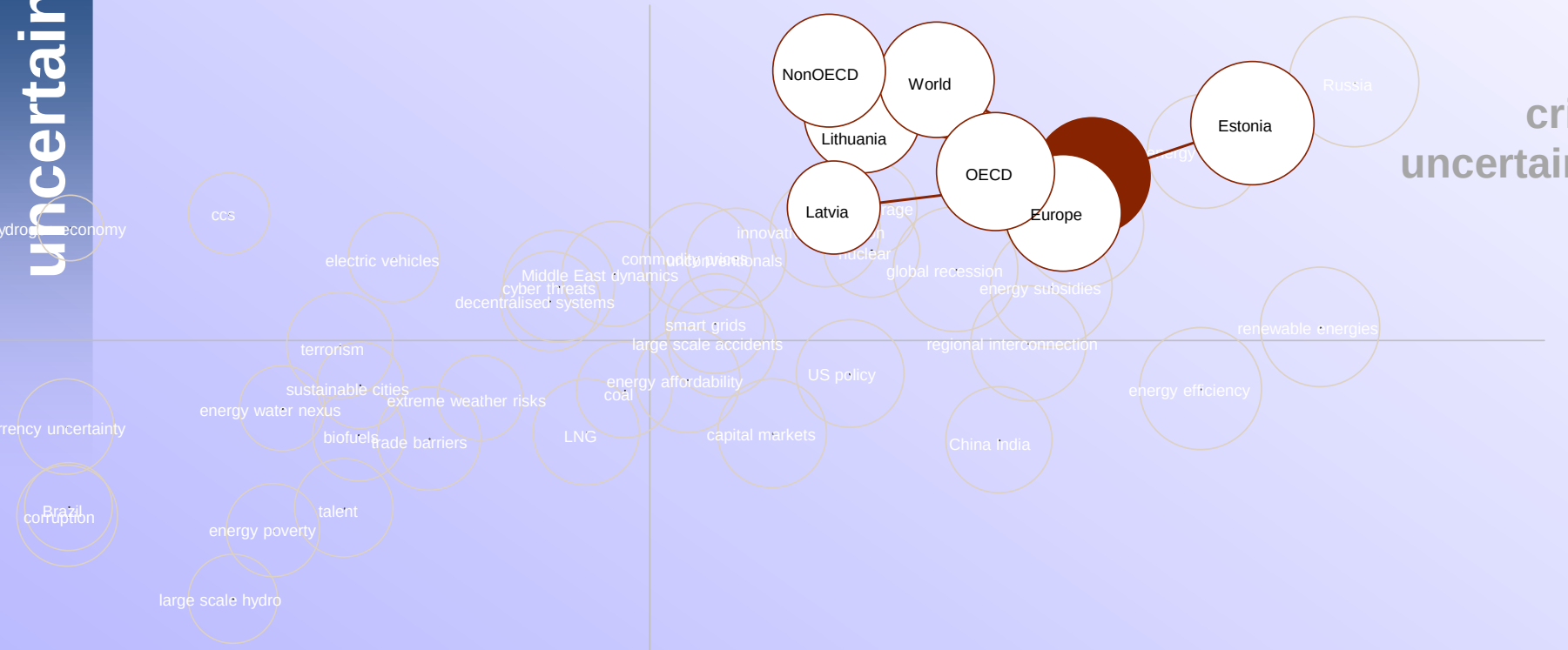






uncertainty

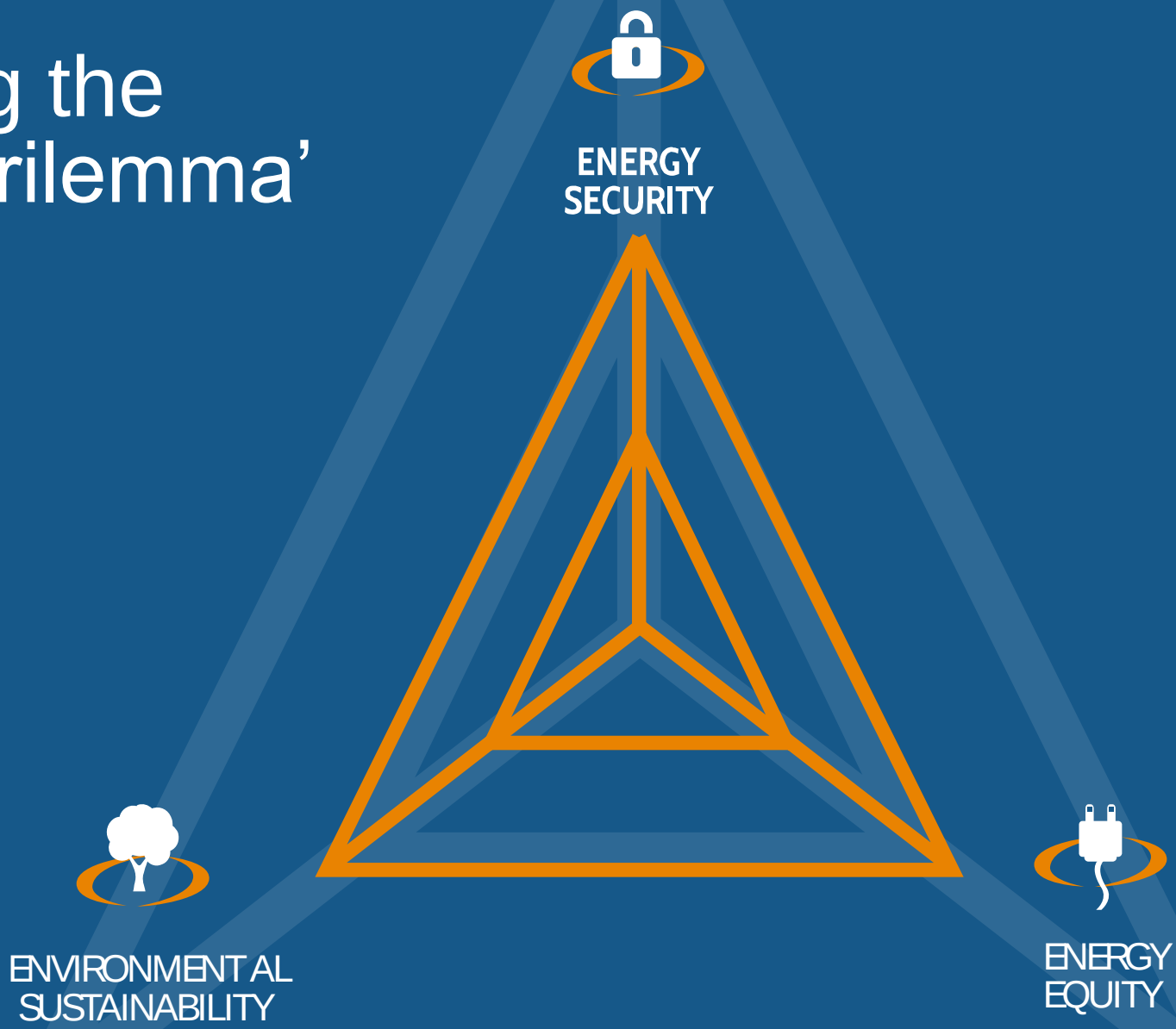
geographical tracking:
climate framework




impact

# World Energy Trilemma 2014

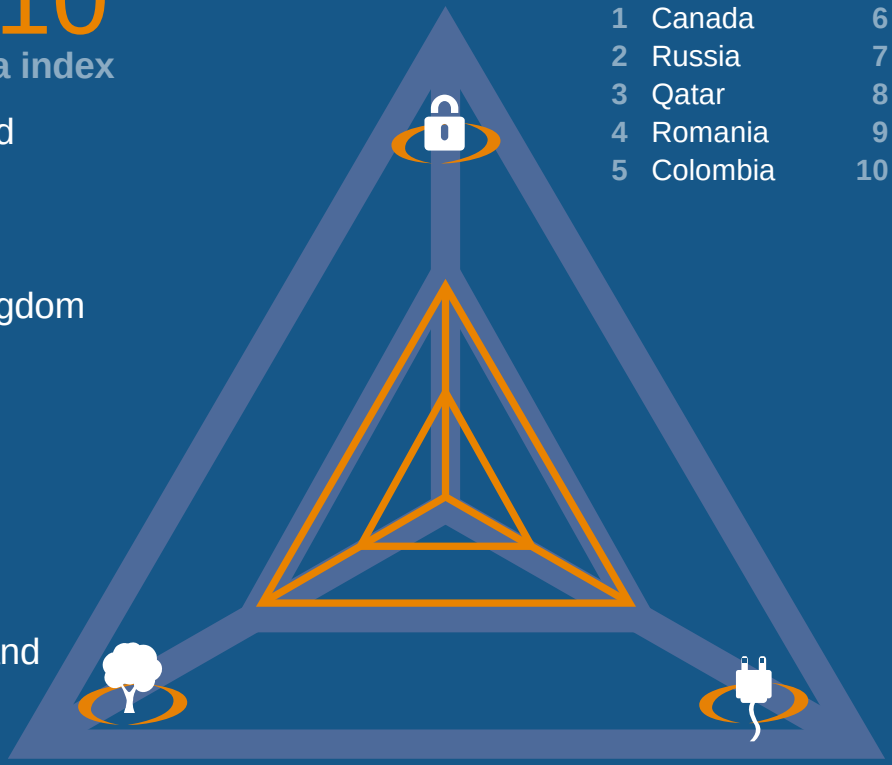
# Balancing the ‘Energy Trilemma’



# TOP 10

## 2014 Trilemma index

1. Switzerland
2. Sweden
3. Norway
4. United Kingdom
5. Denmark
6. Canada
7. Austria
8. Finland
9. France
10. New Zealand



### Energy Security

1. Canada
2. Russia
3. Qatar
4. Romania
5. Colombia
6. Denmark
7. Bolivia
8. United States
9. United Kingdom
10. Australia

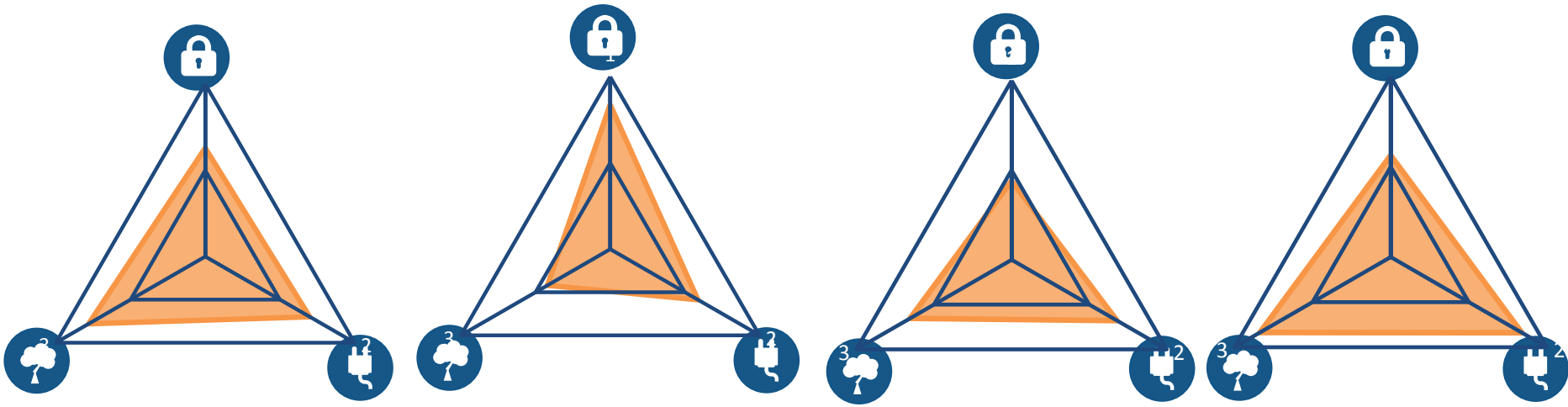
### Environmental Sustainability

1. Switzerland
2. Costa Rica
3. Albania
4. Colombia
5. Norway
6. Sweden
7. Uruguay
8. Austria
9. Denmark
10. France

### Energy Equity

1. United States
2. Canada
3. Australia
4. Luxembourg
5. Switzerland
6. Qatar
7. Saudi Arabia
8. United Arab Emirates
9. Hong Kong, China
10. Austria

# Performance of EU-28 countries



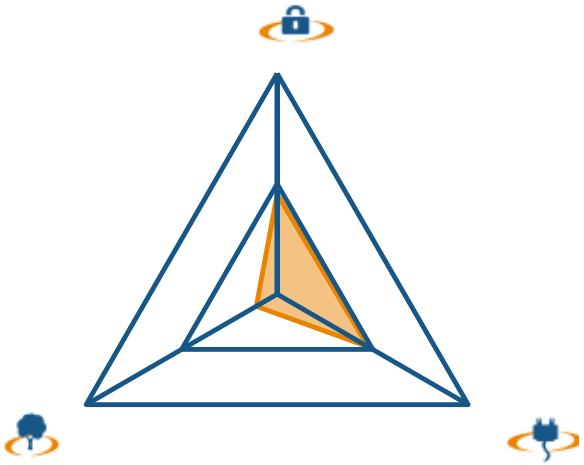
| Northern Countries | |
|---|---|
| 5 | Denmark |
| 2 | Sweden |
| 4 | United Kingdom |
| 8 | Finland |
| 22 | Ireland |
| 37 | Lithuania |
| 43 | Latvia |
| 75 | Estonia |

| Eastern Countries | |
|---|---|
| 17 | Slovakia |
| 28 | Czech Republic |
| 33 | Hungary |
| 42 | Poland |
| 54 | Romania |
| 67 | Bulgaria |

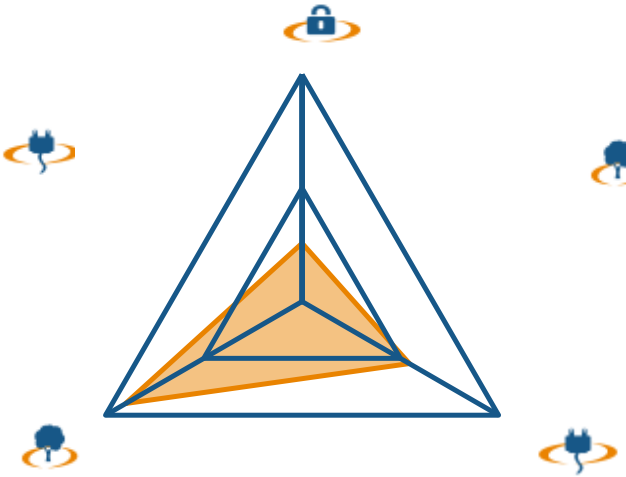
| Southern Countries | |
|---|---|
| 15 | Spain |
| 24 | Slovenia |
| 25 | Portugal |
| 29 | Italy |
| 32 | Croatia |
| 51 | Greece |
| 63 | Cyprus |
| 65 | Malta |

| Western Countries | |
|---|---|
| 7 | Austria |
| 9 | France |
| 11 | Germany |
| 14 | Netherlands |
| 21 | Belgium |
| 18 | Luxembourg |

# Energy Trilemma 2015 for the Baltic States



Estonia on rank 75



Latvia on rank 43

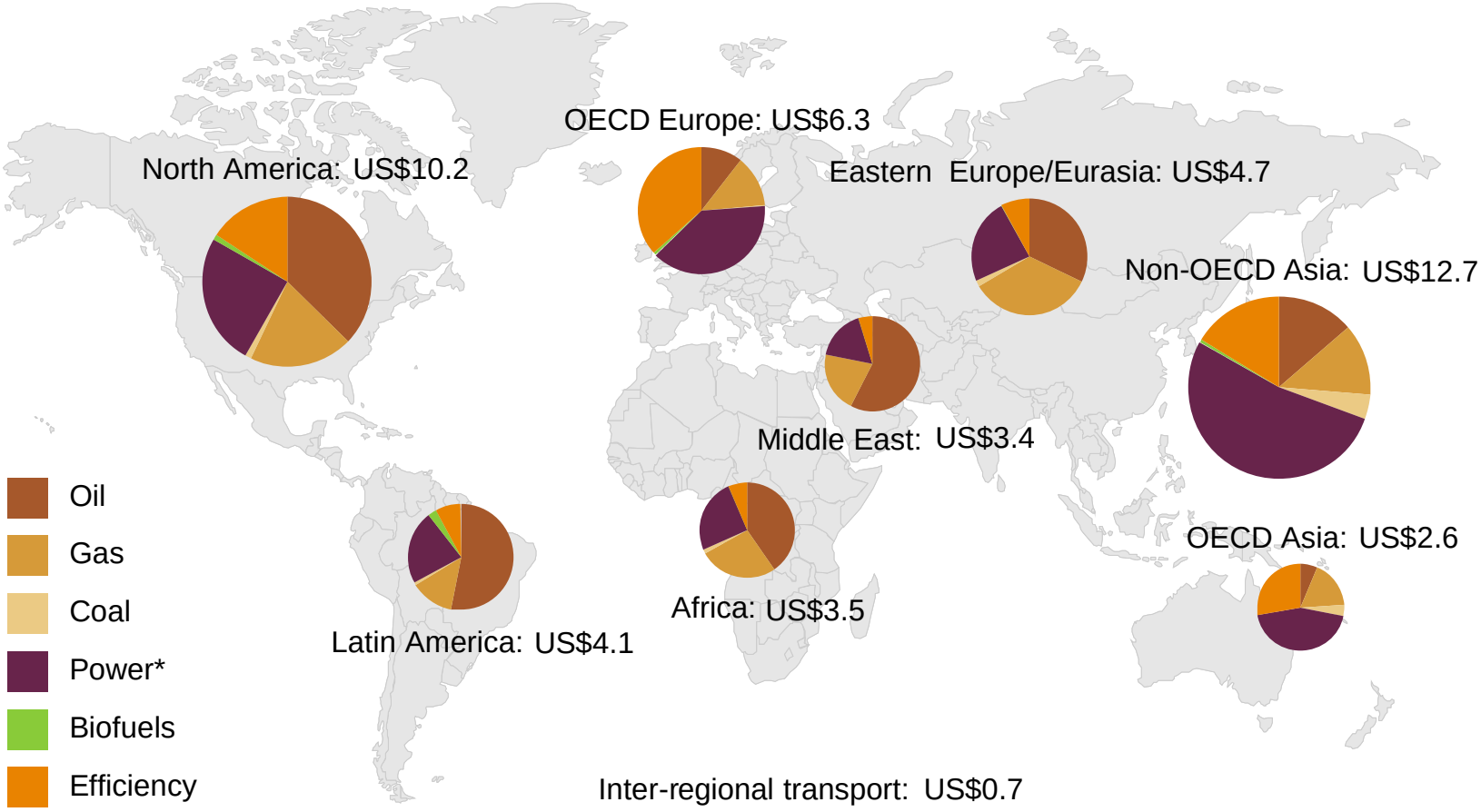
Lithuania on rank 37

# Financing energy investments: challenges ahead

# The world is far away from achieving sustainable energy systems

- 1.2 billion people live without access to electricity
- 2.8 billion people lack access to clean cooking facilities
- Population growth from 7 to 9.3 billion people by 2050
- Energy demand is expected to increase between 27% and 61% by 2050
- $CO_2$ emissions continue to grow
- Cumulative investment of US$48trn to US$53trn needed by 2035

# Investment needs to 2035 in trillion dollars




* Power includes generation, transmission and distribution

# Three key questions at the centre of attention

1. Is there enough available capital at the right cost?

2. Will the existing funding instruments be able to channel capital from the investor community to the energy sector?

3. Can the energy sector attract and absorb capital on this scale?

# Key risks in energy sector

1. Regulatory uncertainty (politics in energy policy): missing climate change framework, regulated prices, ever-changing legislation, taxation etc

2. Market risks: volatility of energy prices, demand uncertainty, new business models etc

3. Technological risks: new technologies impact, integration to existing systems, new project development risks etc

# Policymakers must focus on reducing political and regulatory risks

1. Have a clear vision for sustainable energy and a master plan with clearly defined energy sustainability goals

2. Define coherent, long-term, and predictable energy policies, underpinned by well-implemented regulations

3. Recognise that investors are not going to provide capital without an attractive profit

# The financial infrastructure must exist for capital to flow easily to the energy sector

1. Help policymakers and energy sector understand the role of different financial investors and instruments

2. Support efforts for the standardisation of instruments

3. Review existing rating models and develop new approaches to bundle smaller-scale projects

# The energy sector must bring clearly bankable projects to the market

1. Be more proactive in the dialogues around energy policies

2. Establish standard procedures and best practices for data and disclosure

3. Create new pricing models that meet the reality of changing business models and encourage demand side response

# Conclusions

1. There is enough money available if the right conditions are provided.

2. Policymakers must focus on implementing the policy frameworks to reduce political and regulatory risks.

3. The financial infrastructure must exist for capital to flow easily to the energy sector.

4. The energy sector must bring clearly bankable projects to the market.

# *Thank you*

## Any questions?

Einari Kisel
kisel@worldenergy.org

**wwwworldenergyorg**
**@WECouncil**