

2016 World Energy Issues Monitor

A climate of innovation – responding to the commodity
price storm

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About the World Energy Council



Principal impartial network of leaders and practitioners promoting an affordable, stable and environmentally sensitive energy system for the greatest benefit of all.

UN-accredited global energy body, representing the entire energy spectrum:

- Over 3000 member organisations in almost 100 countries
- Representing all energy technologies
- From governments, private and state corporations, academia, NGOs and energy-related stakeholders

Informs global, regional and national energy strategies:

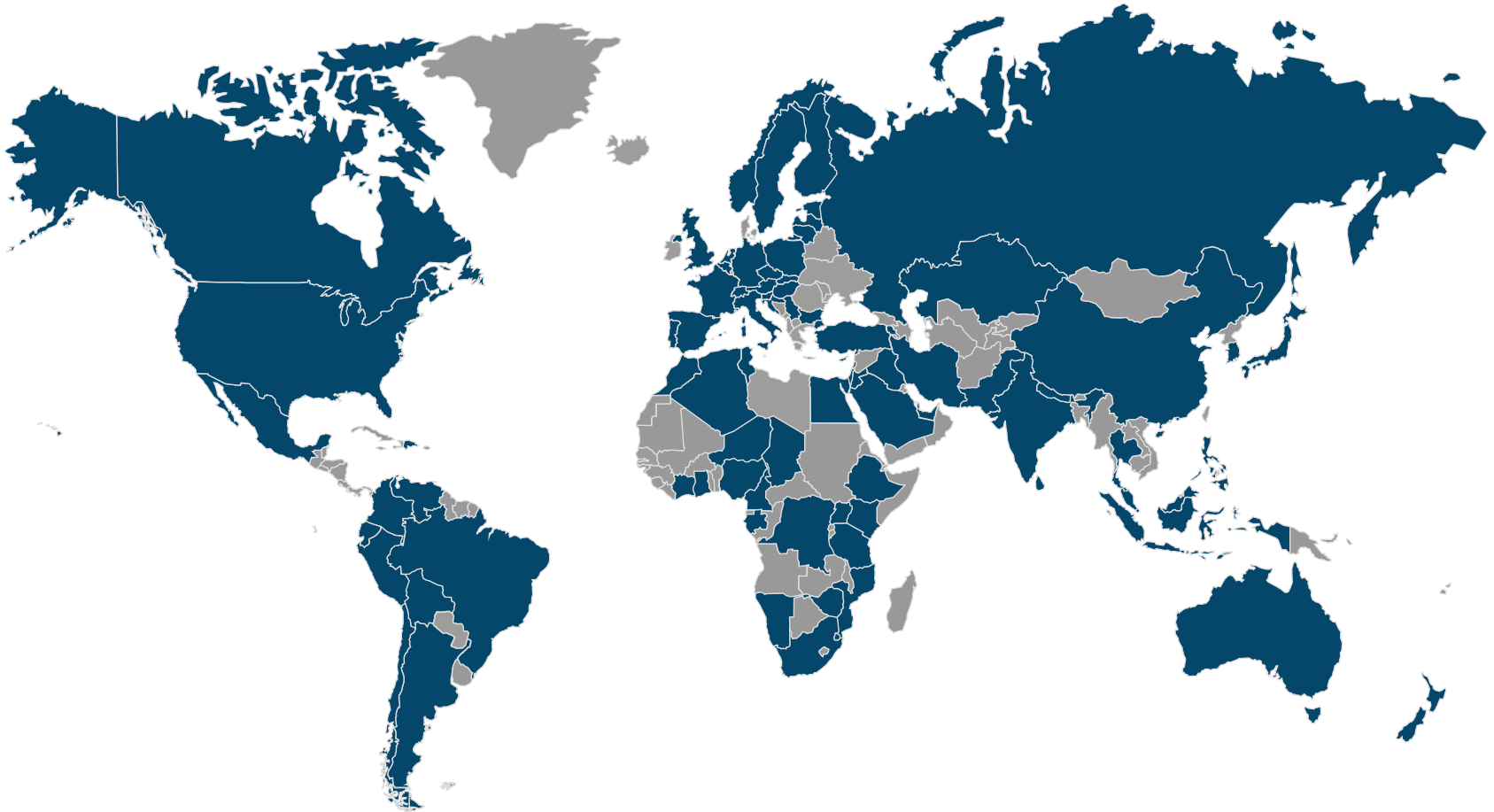
- Hosts high-level events, including the World Energy Congress 2016
- Publishes authoritative studies
- Works through its extensive member network to facilitate the world's energy policy dialogue

About the World Energy Issues Monitor

The aim of the World Energy Issues Monitor is to ensure that energy leaders across the world better understand the reality of their operating environment so that they can make more informed decisions towards a sustainable energy future.

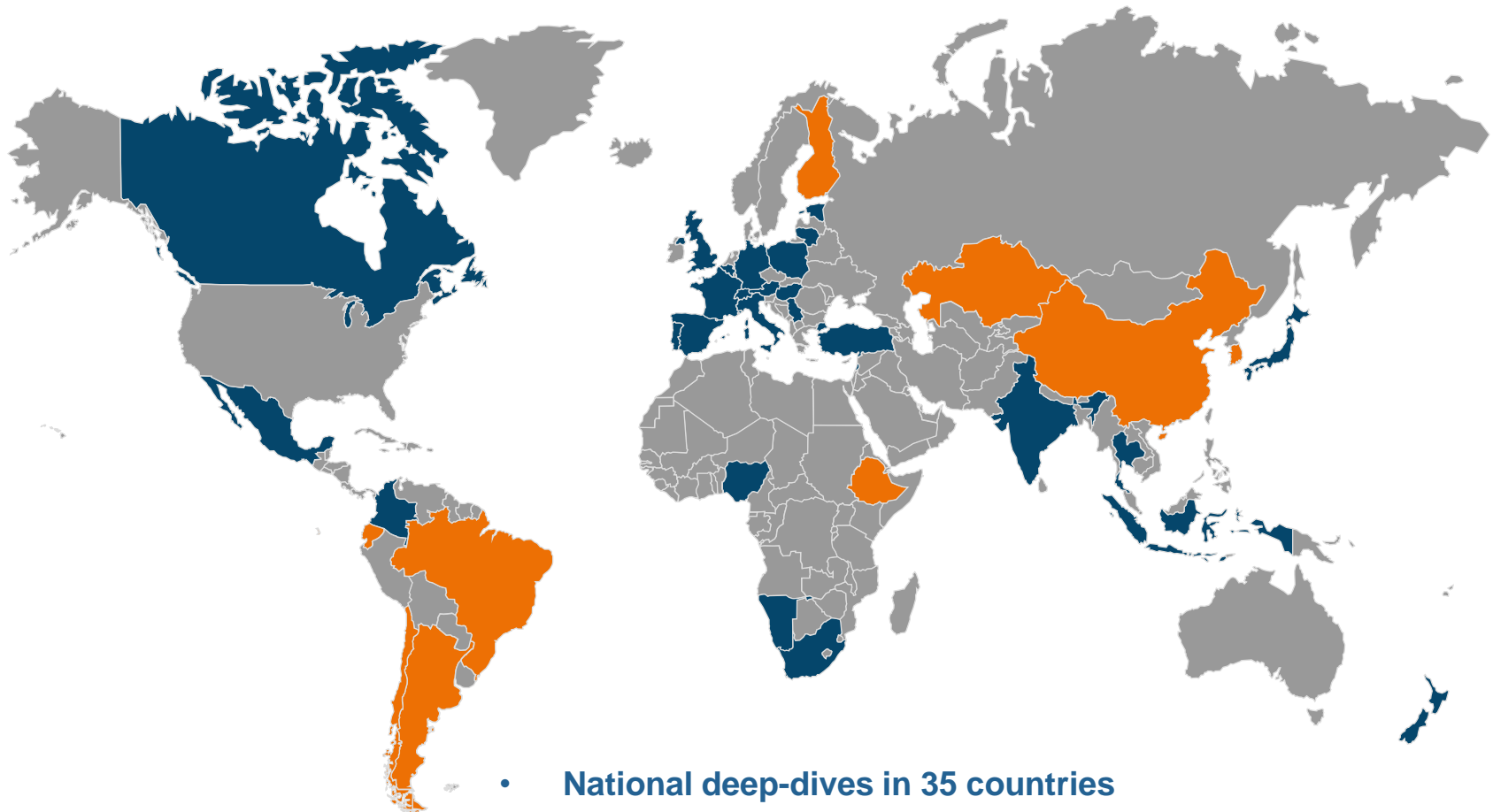
Now in its seventh year the 2016 World Energy Issues Monitor represents the insights of over 1200 energy leaders in 90 countries representing all parts of the energy sector. It brings together the viewpoint of both industry and policy leaders along with experts from the World Energy Council's community.

2016 - contributing countries



- **Over 1200 energy leaders in 90 countries**

2016 - national deep-dive countries



- National deep-dives in 35 countries
- New for 2016: Argentina, Brazil, Chile, China, Ecuador, Ethiopia, Finland, Kazakhstan and Korea (Rep.)

Section 2A

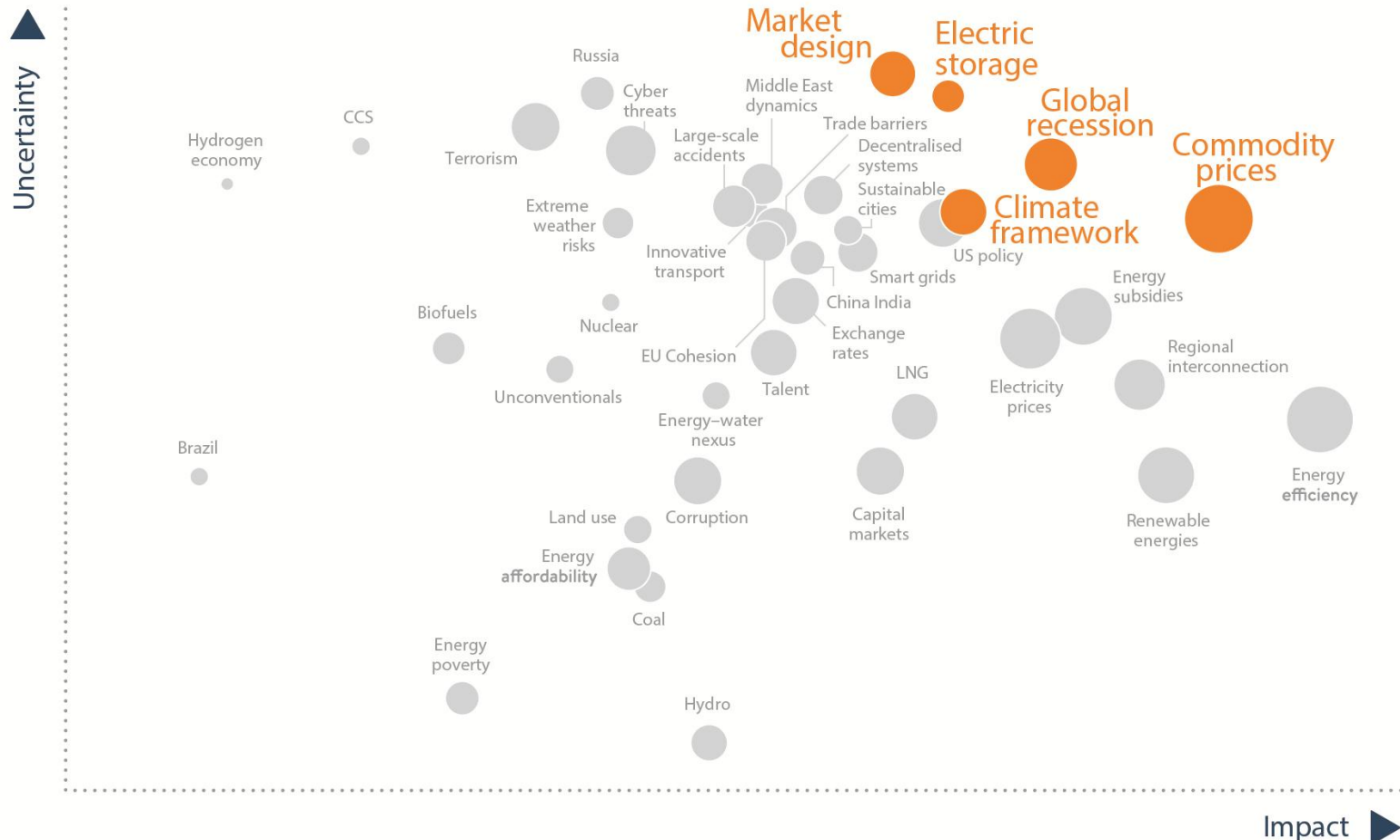
GLOBAL - OVERVIEW

The energy agenda Global 2016



What keeps energy leaders awake at night?

Global 2016

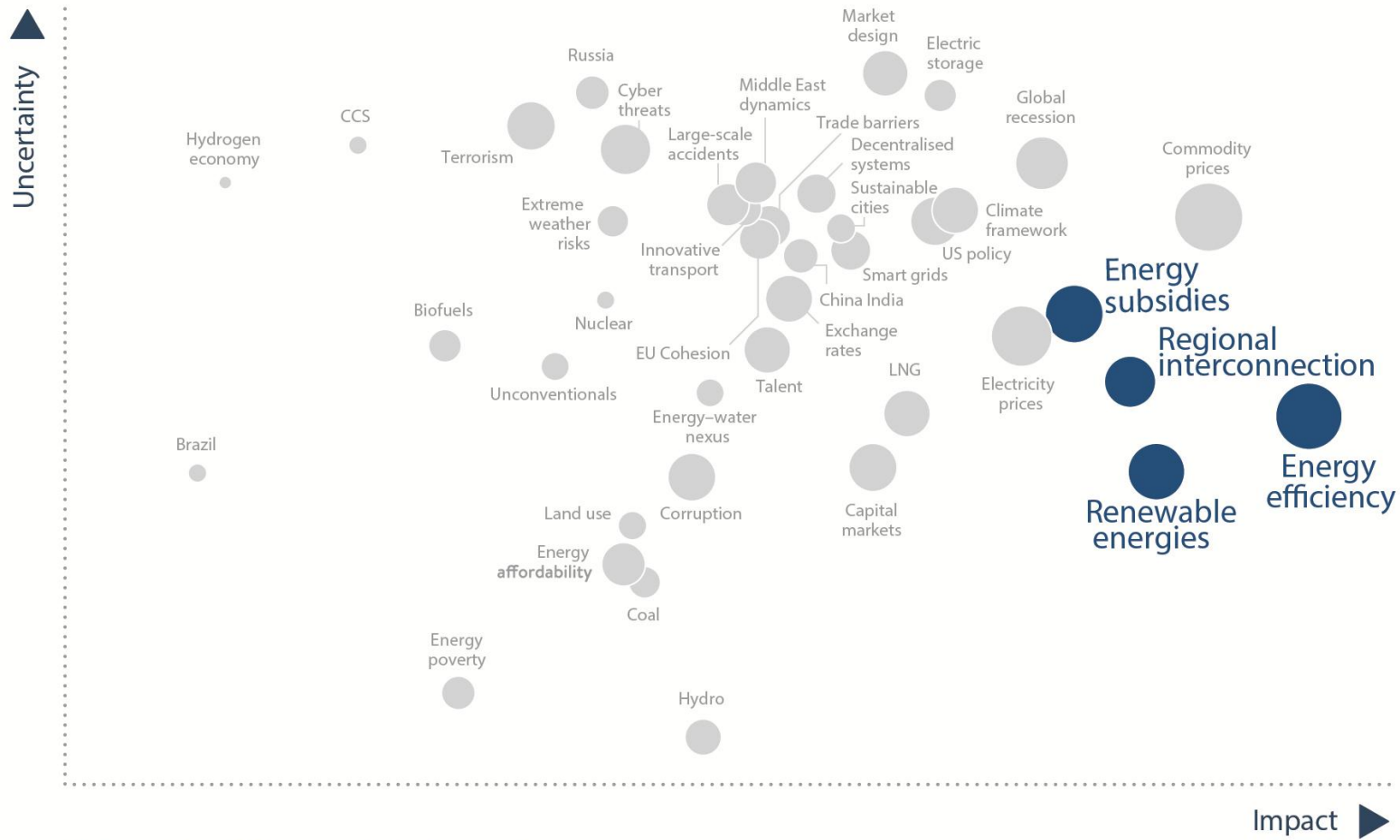


● Critical uncertainties: what keeps energy leaders awake at night

Less urgent ○ ○ ○ More urgent

- Price volatility, economic uncertainty, market design and electric storage are the top insomnia issues for energy leaders globally.

What keeps energy leaders busy at work? Global 2016

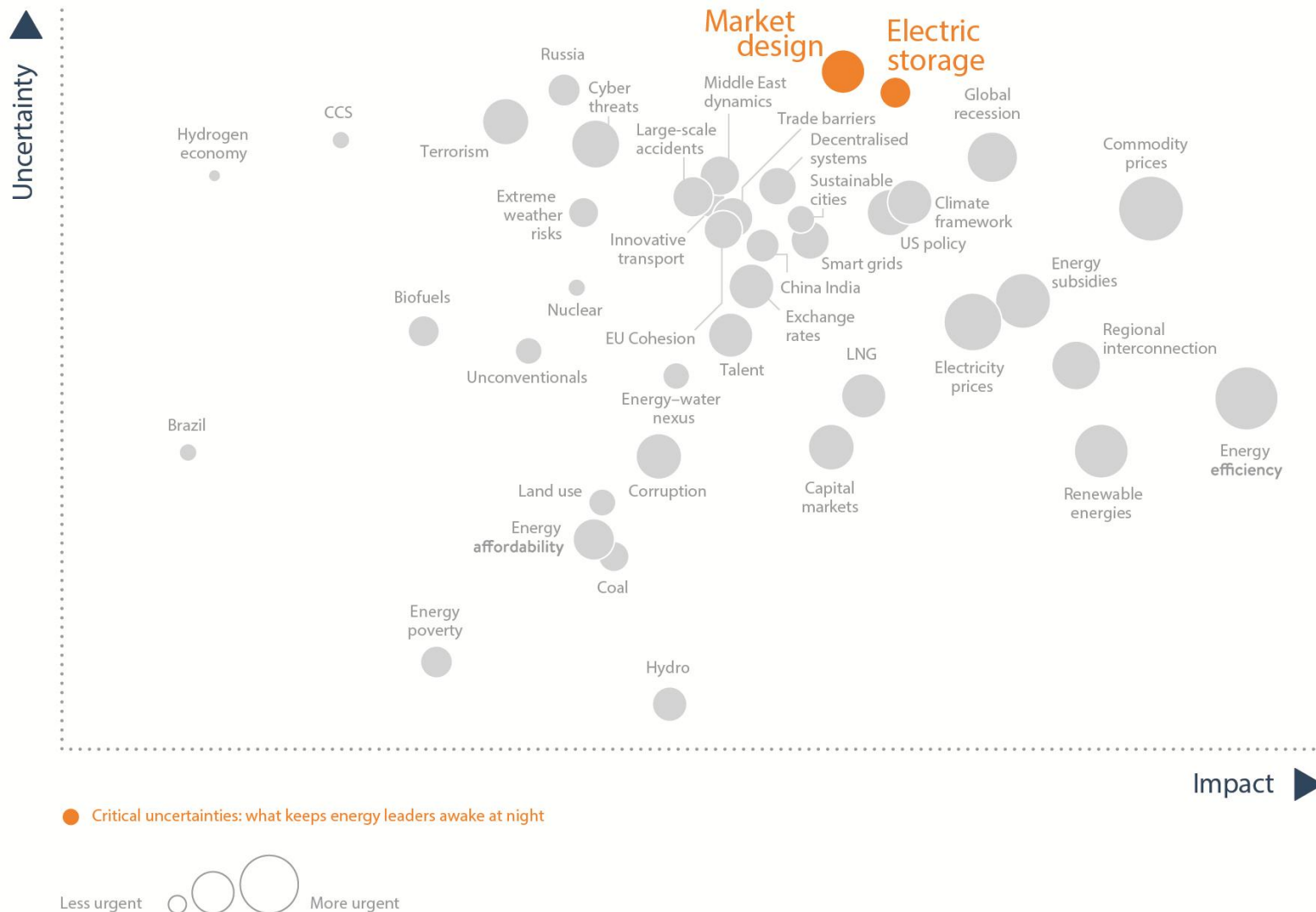


● Action priorities: what keeps energy leaders busy at work

Less urgent ○ ○ ○ More urgent

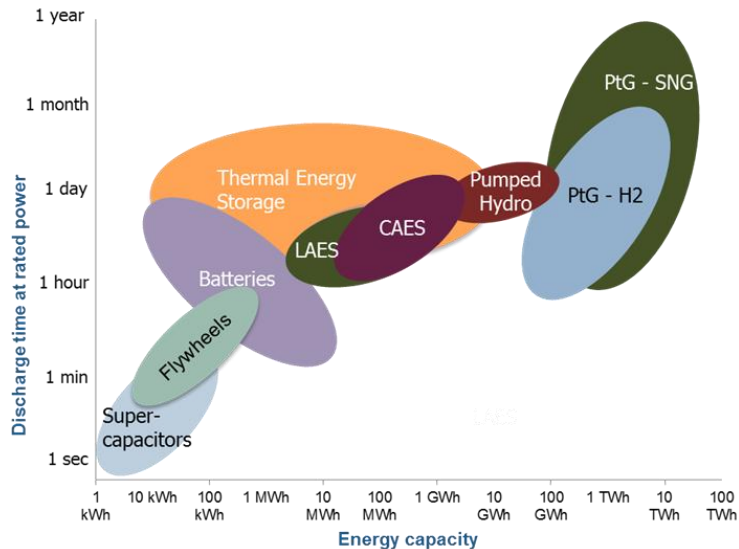
- **Regional interconnection, renewables, energy efficiency and transitioning subsidy regimes are issues keeping energy leaders most busy globally.**

Energy leaders' top innovation priorities Global 2016

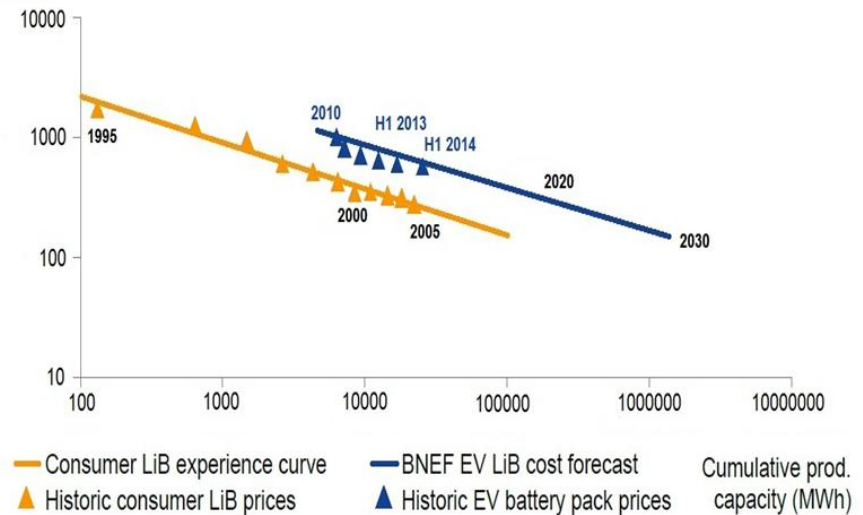


E-storage

Storage type by application



Learning curve for Li-ion battery



- There is no ‘silver bullet’ storage – specific need calls for specific solution
- Storage costs have come down by 2/3 over the past five years
- Learning curve is there – it is a question of volumes

Energy leaders' resilience priorities Global 2016

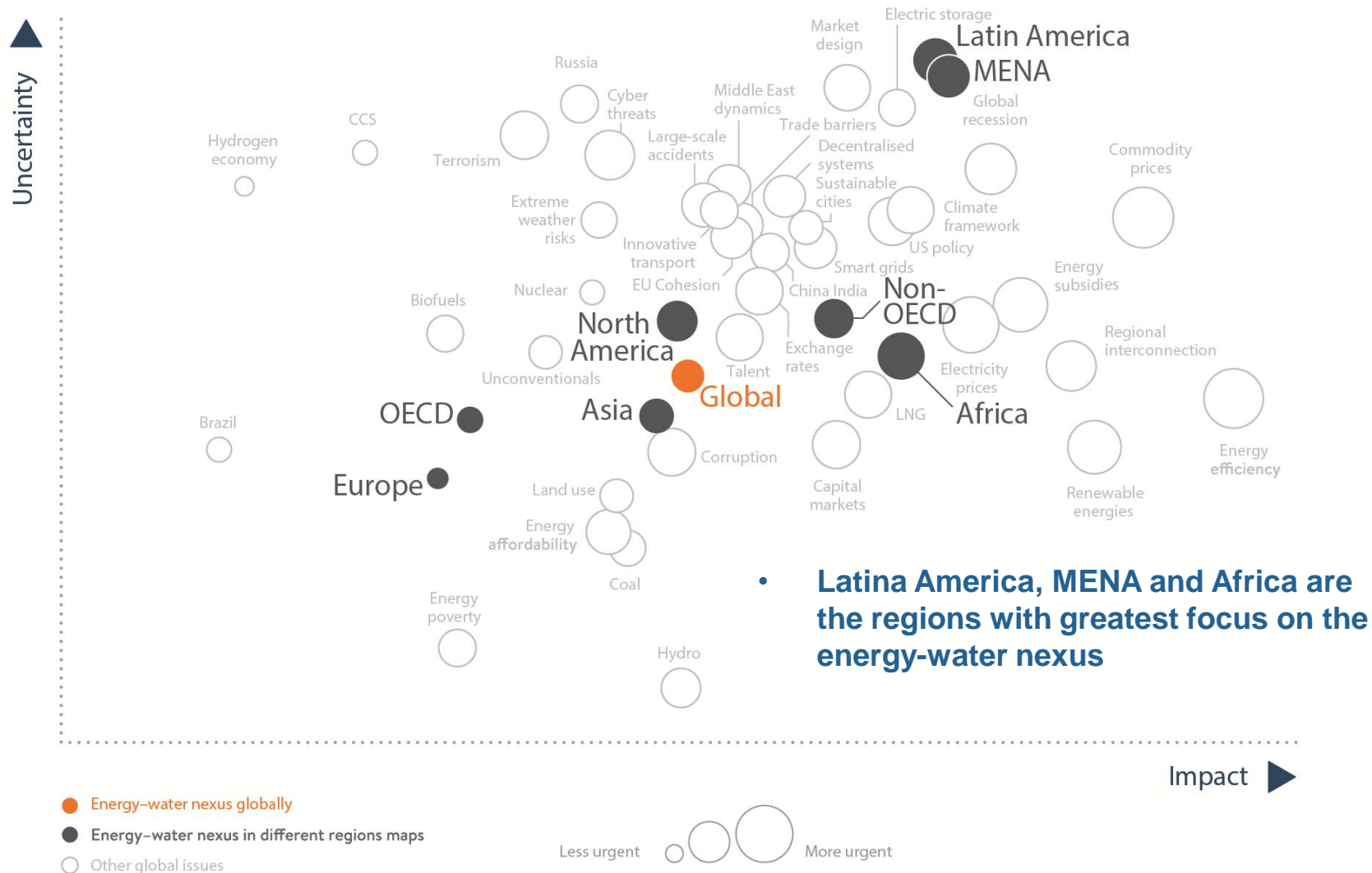


Section 2B

GLOBAL – GEOGRAPHICAL TRACKING

Energy-water nexus: a non-OECD focus

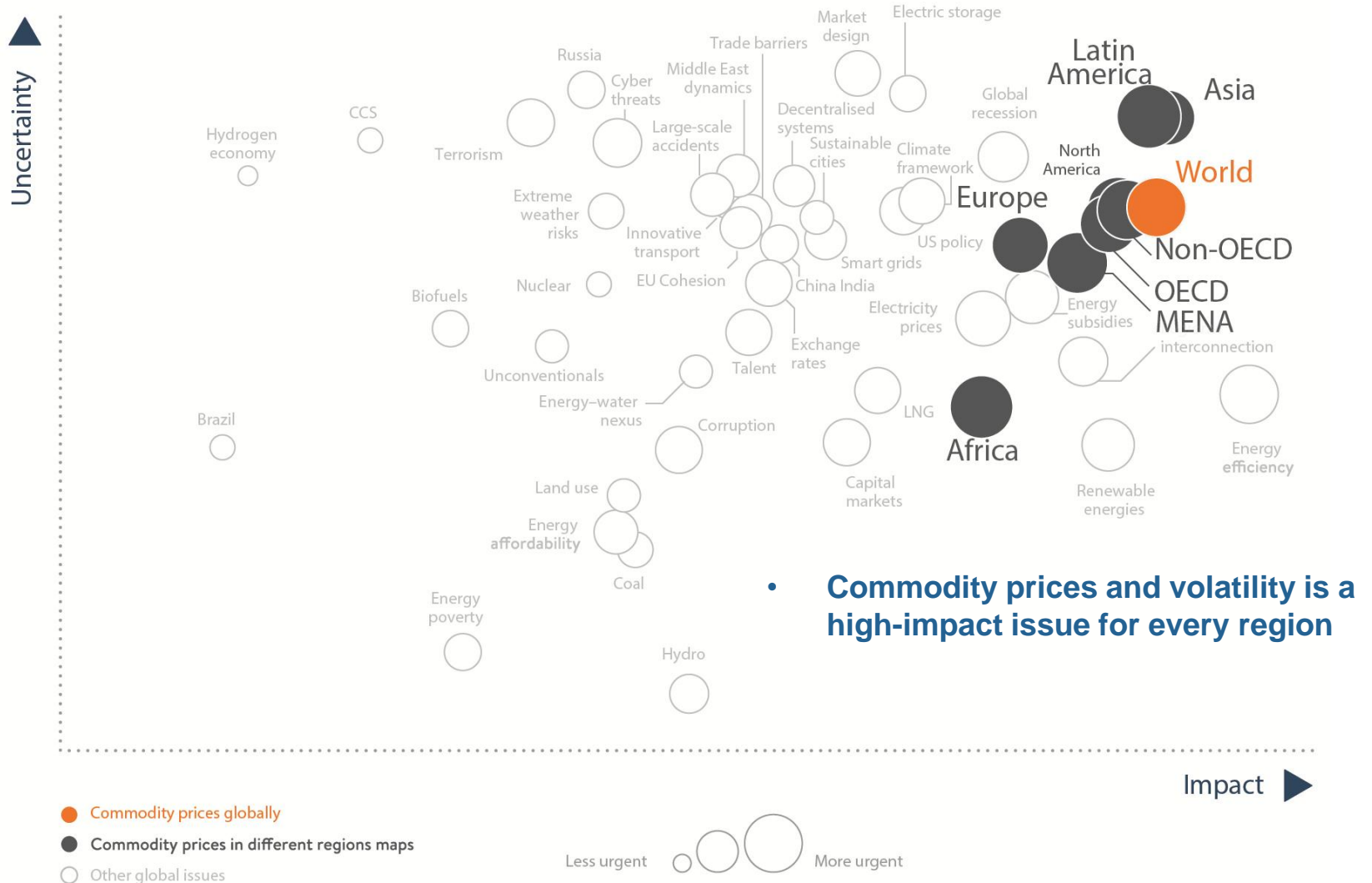
Global 2016



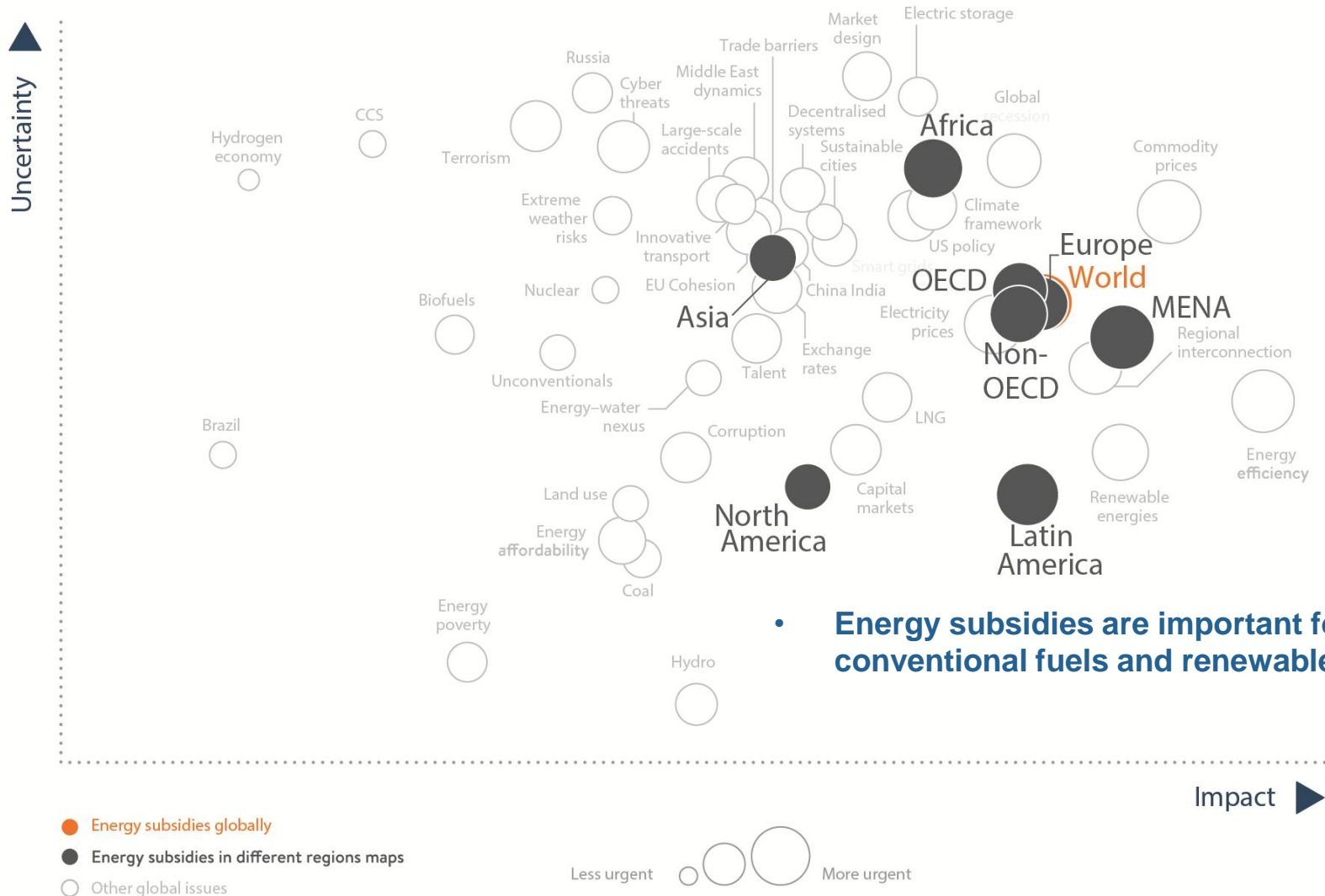
- **Latina America, MENA and Africa are the regions with greatest focus on the energy-water nexus**

Price volatility: high-impact in every region

Global 2016



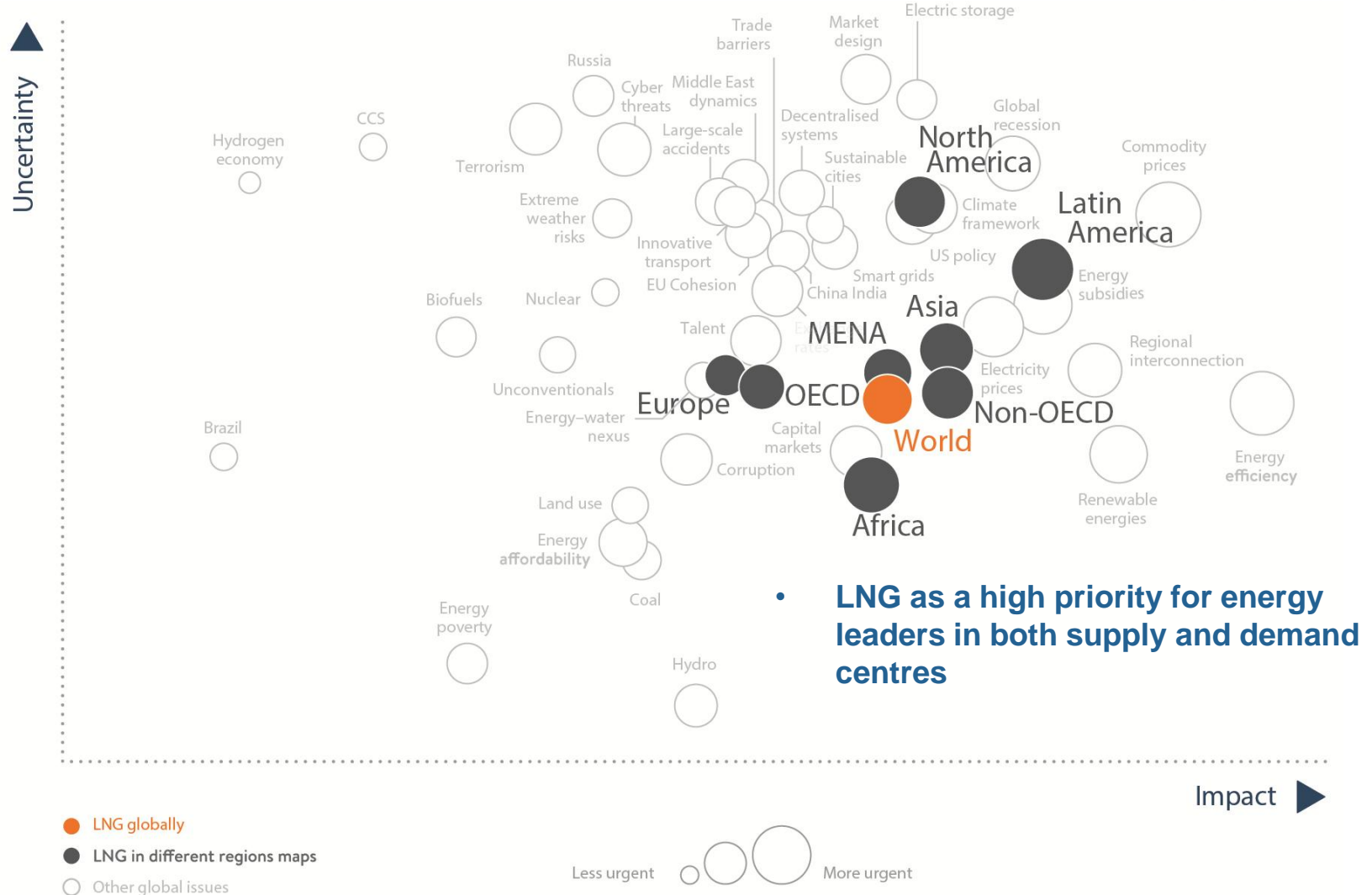
Energy subsidies: conventional & renewable Global 2016



- Energy subsidies are important for both conventional fuels and renewables

LNG: high impact despite market volatility

Global 2016



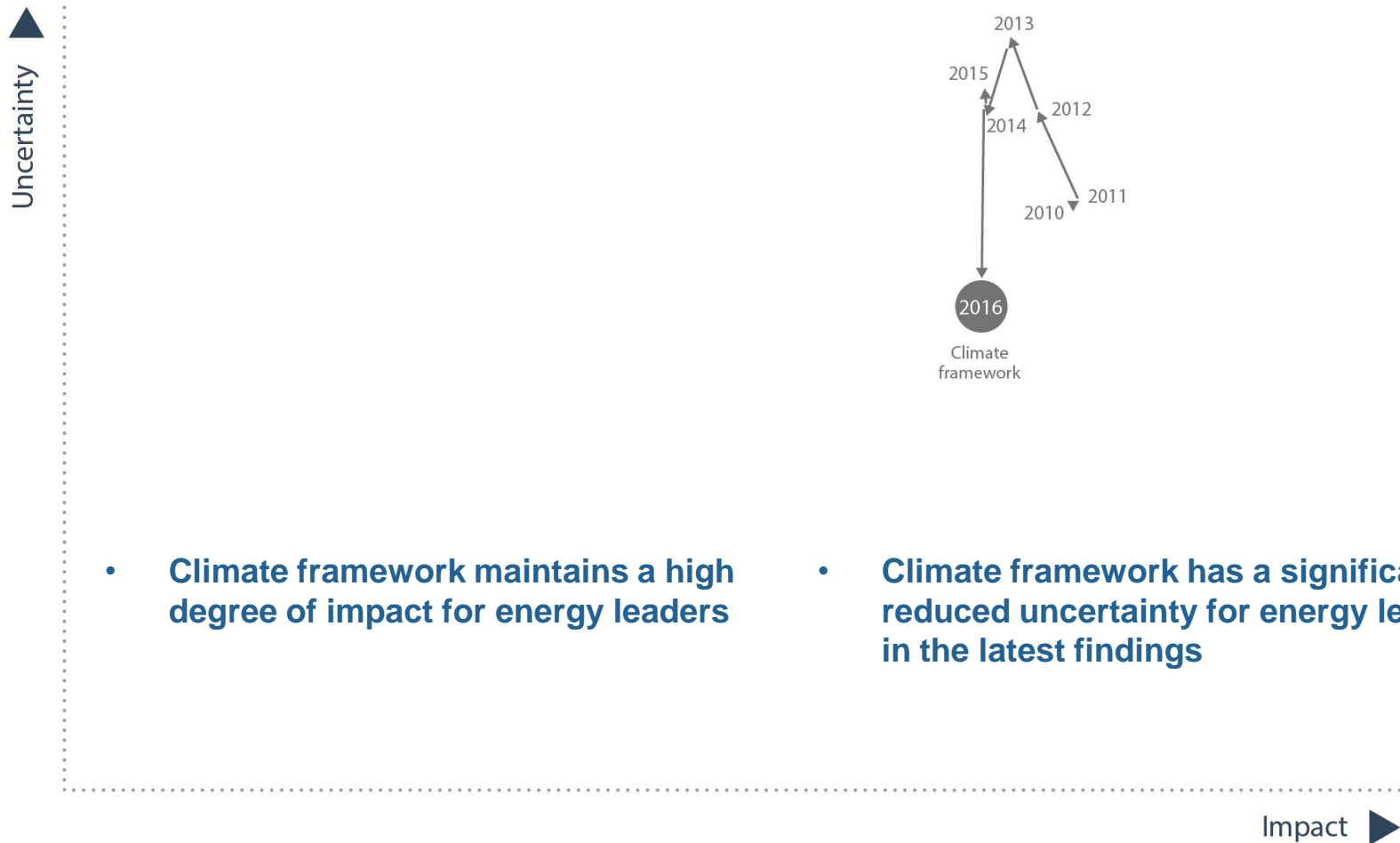
- **LNG as a high priority for energy leaders in both supply and demand centres**

Section 2C

GLOBAL – TIME TRACKING

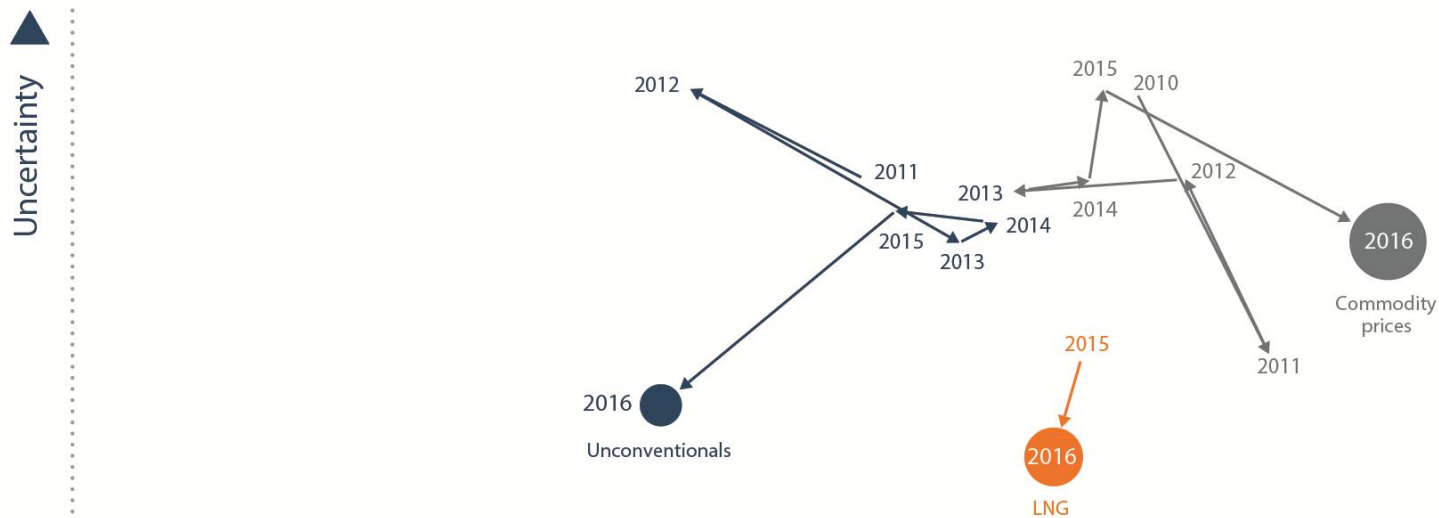
Reducing climate framework uncertainty

Global 2016



Reducing climate framework uncertainty

Global 2016



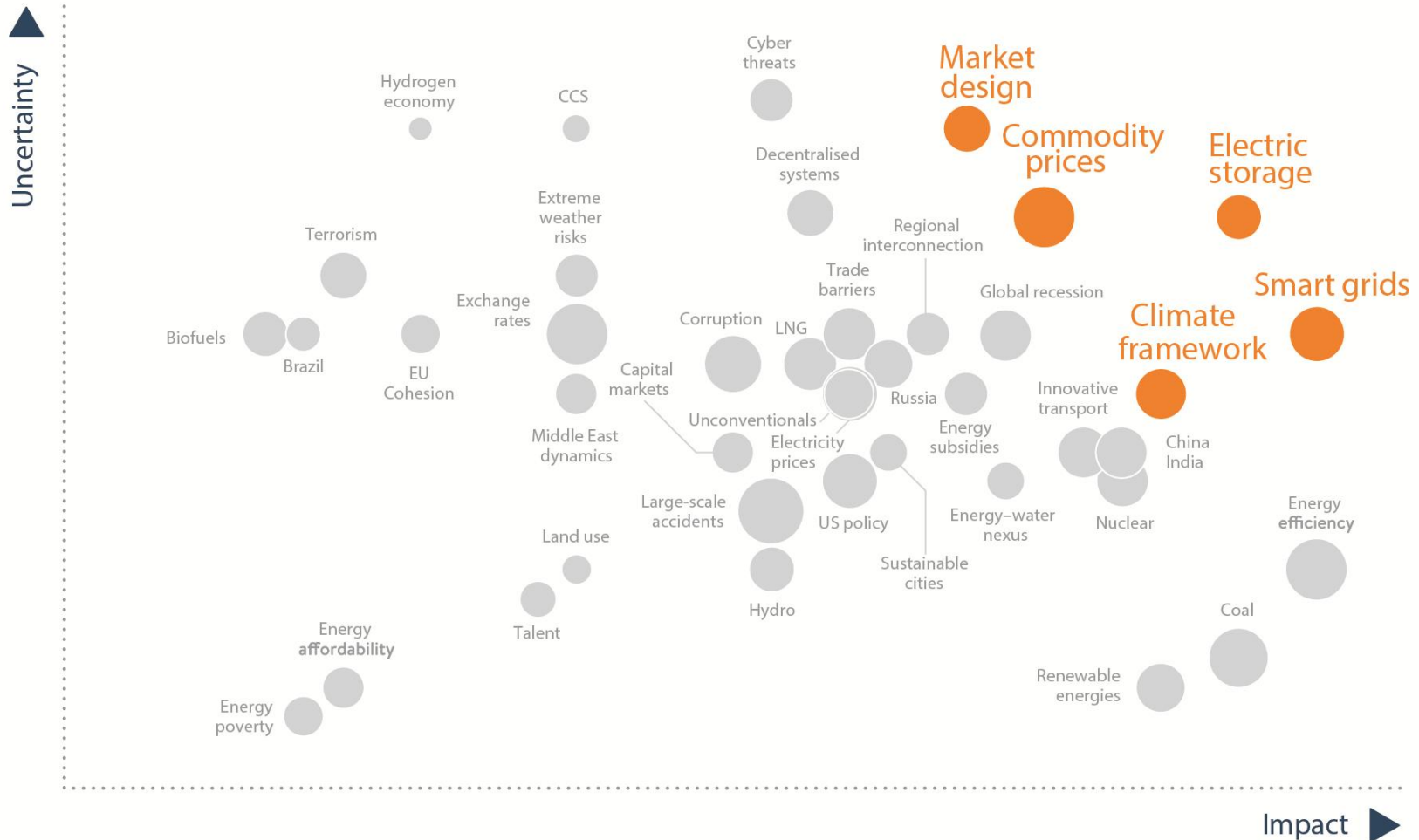
- **Unconventionals & commodity prices show a large shift in positioning for 2016**
- **LNG remains relatively stable, despite market volatilities**

Impact ►

Section 2

CHINA

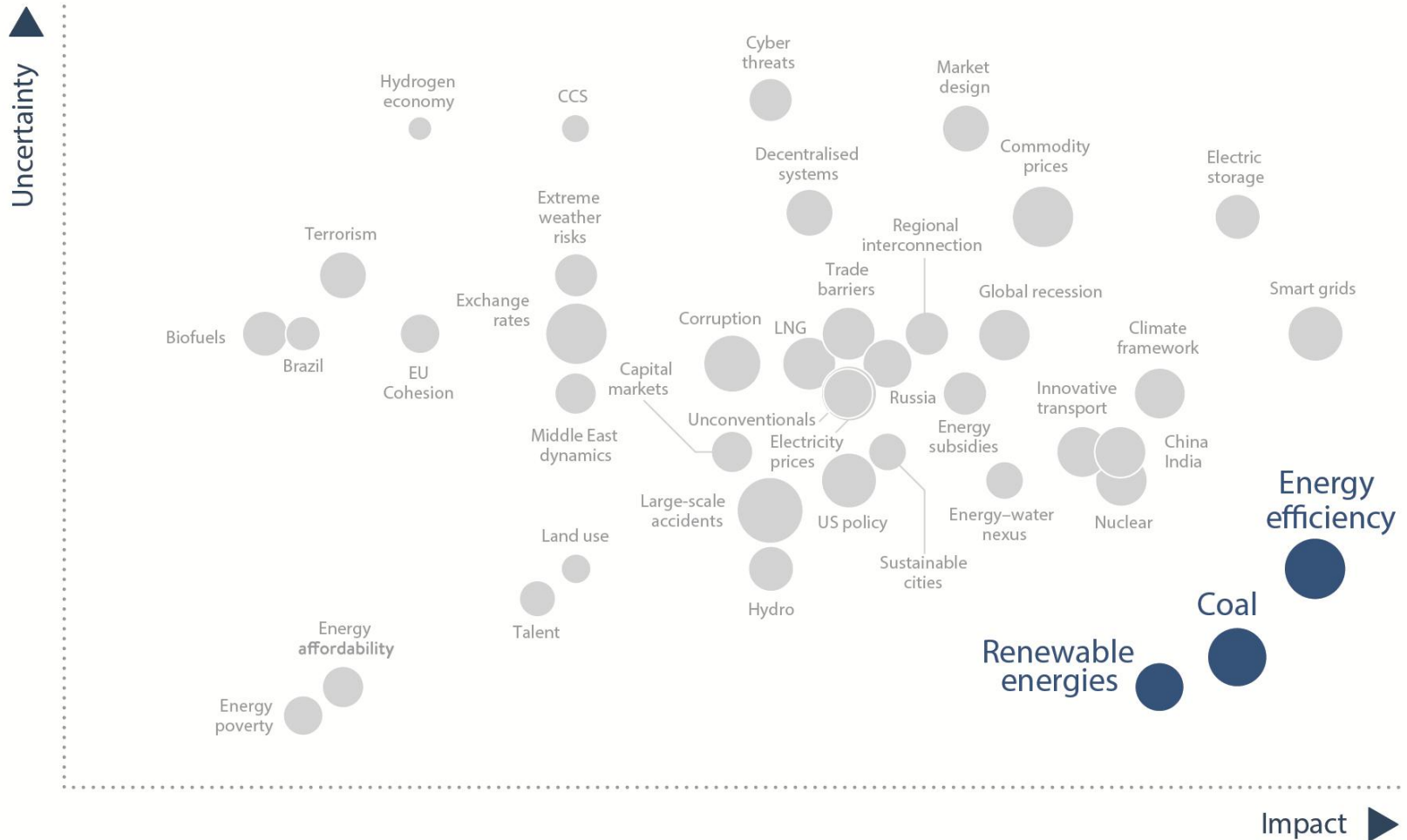
What keeps energy leaders awake at night? China 2016



Less urgent More urgent

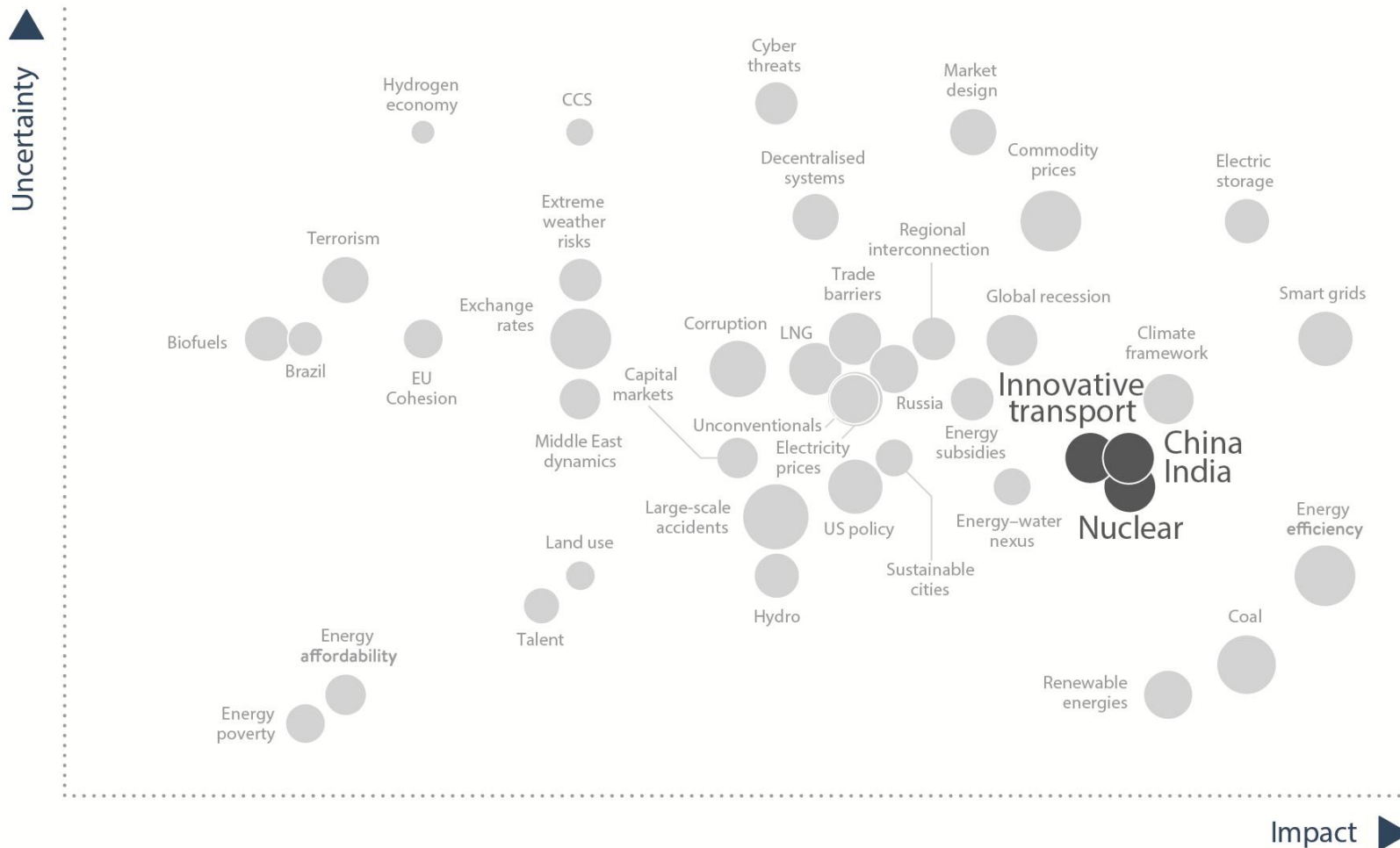
- **Smart innovation issues (smart grids, market design, electric storage) are insomnia issues**
- **Market design and commodity prices are similarly high as in rest of world**

What keeps energy leaders busy at work? China 2016



- **Supply issues (coal, energy efficiency, renewables) dominate the action agenda**

Other important issues China 2016

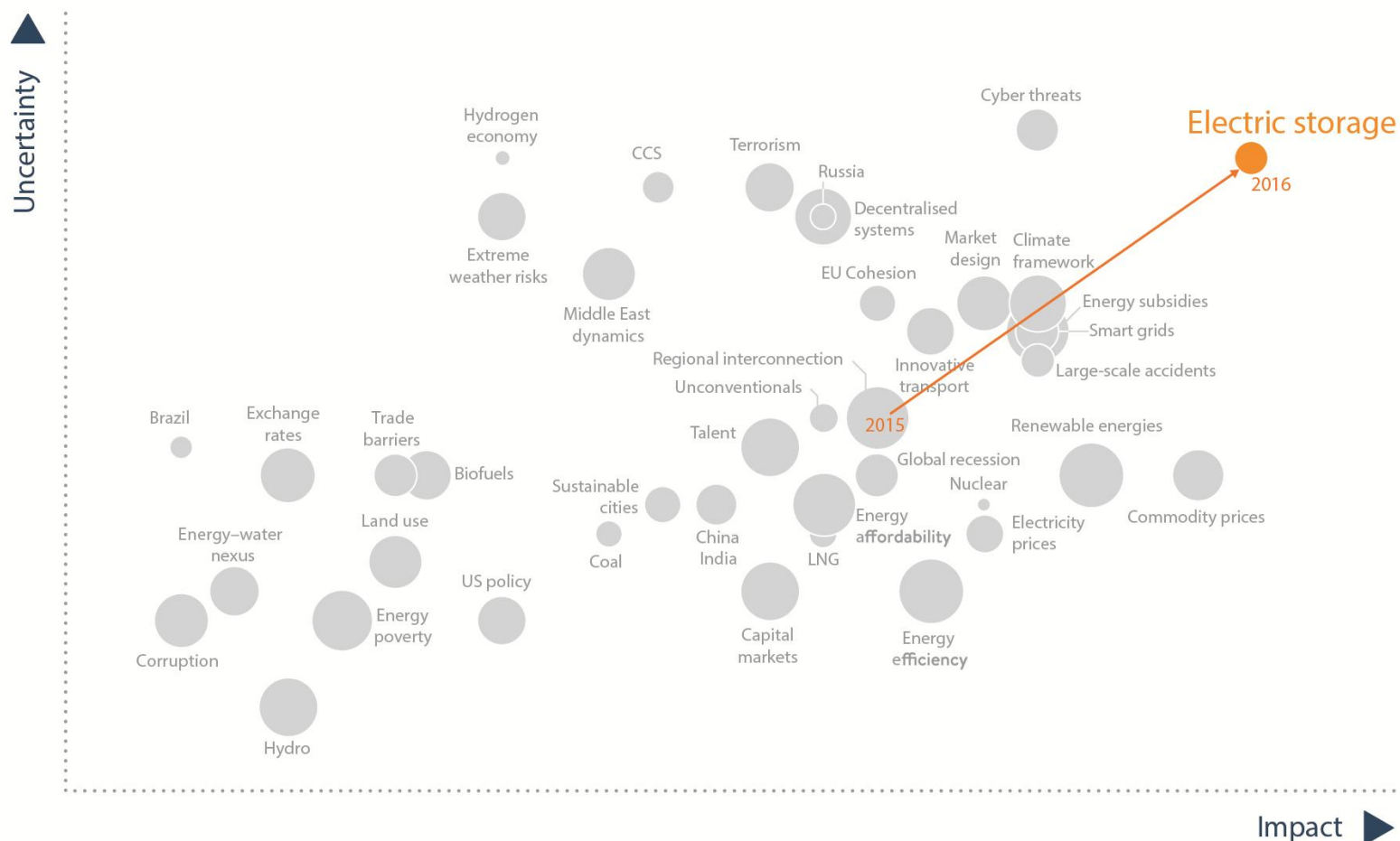


- **Other critical issues include nuclear, innovative transport and geopolitics in the region**

Section 2

UNITED KINGDOM

Energy storage flying up the agenda UK 2016

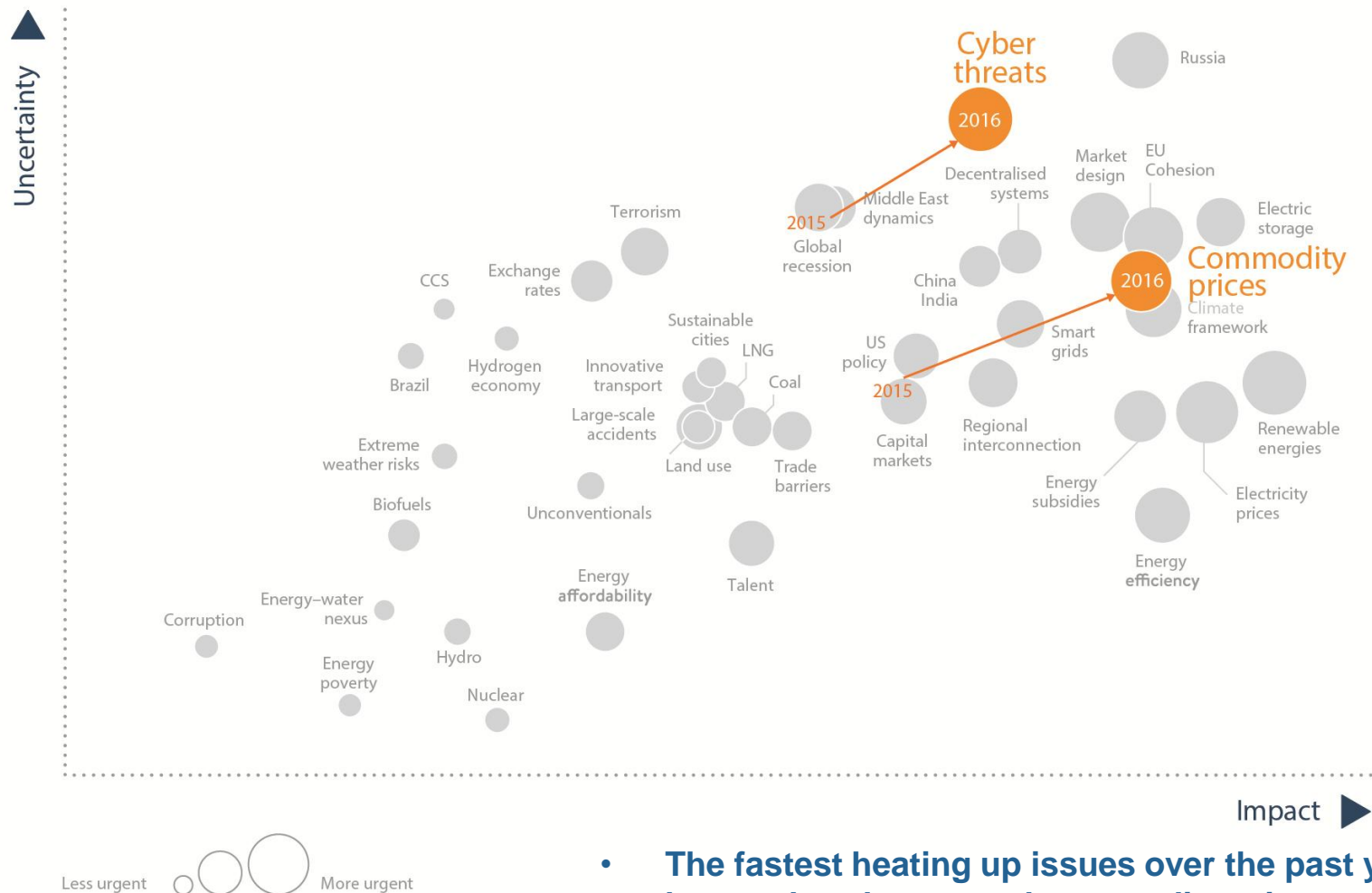


- **Electric storage becomes the top critical uncertainty for energy leaders in the United Kingdom**

Section 2

GERMANY

Uncertainty up for cyber and commodities Germany 2016



- **The fastest heating up issues over the past year have been cyber threats and commodity prices.**

Thank you

To find out further information or be involved in the process for 2016-17, contact John Bourne
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