

Committee on Sustainable Energy

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Insights tool



World Energy Issues Monitor: reality check - global, regional, national energy leaders perspectives on the key challenges



Energy Policy Trilemma: policy pathfinding to manage security, equity and sustainability through transition



World Energy Scenarios: a tool for bigger picture thinking, revealing deeper assumptions and reframing choices and options



Innovation Insights: digging deeper into disruptive dynamics and moving transition innovation from the margins to mainstream



Dynamic Resilience: better prepare firms for new shocks and stresses and adapt whole systems to emerging and systemic risks

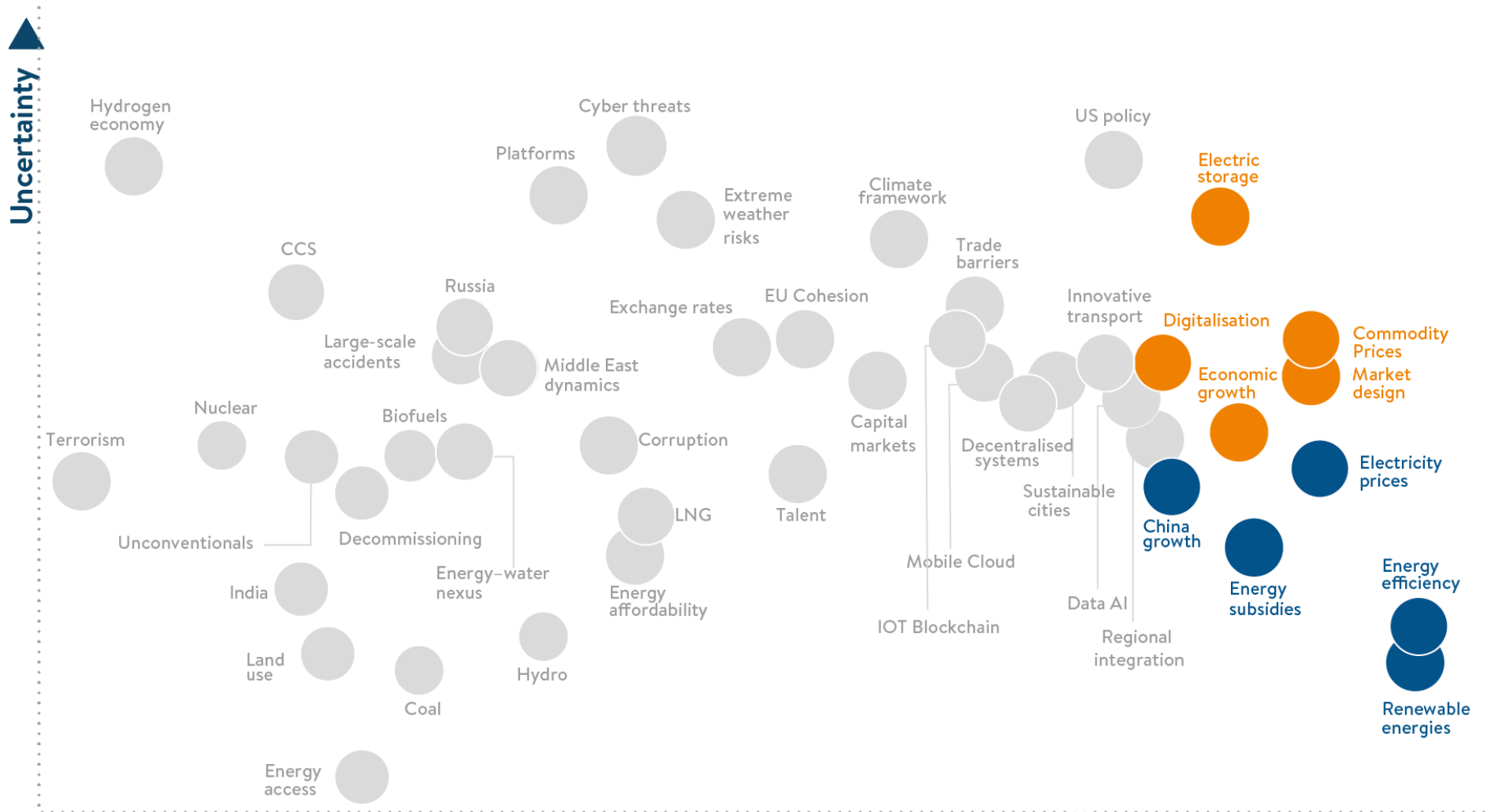
Issues Monitor

The Issues Monitor identifies shifting patterns of connected issues which are shaping energy transitions



- **Reality check** - global, regional, national energy leaders perspectives on the key challenges
- A hub for **forward-thinking** and **useful insights** based on survey results (data)
- Use survey data to help MCs understand and take advantage of accelerating change.
 - **Identify trends** and patterns that illustrate a path towards transition.
 - Identify **risks & opportunities** based on collecting 10 years of data (tracking).

Global Issues Map



World Energy Issues Monitor 2019 - Global

Impact ►

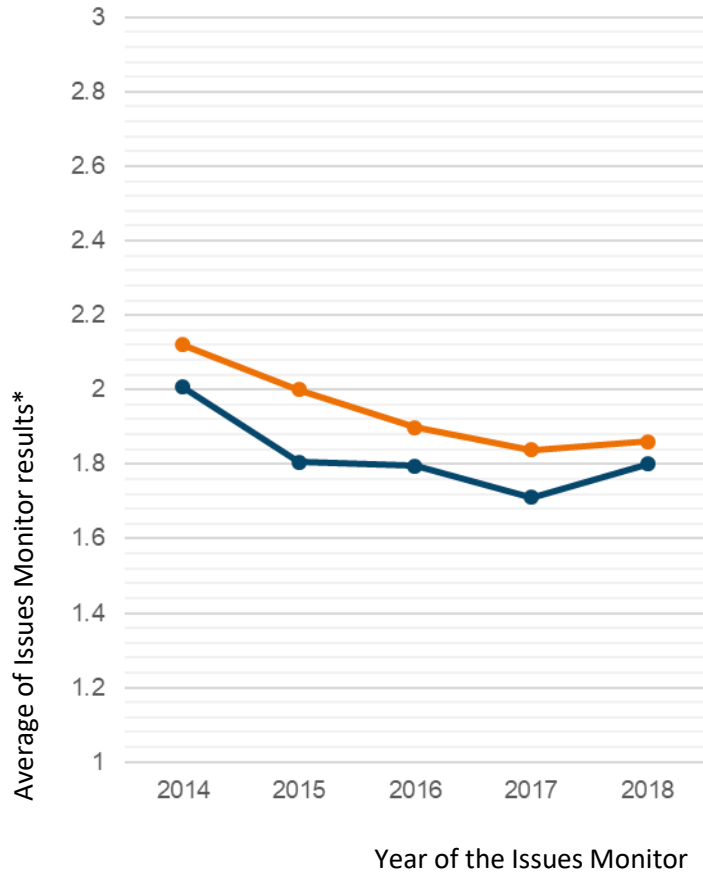
● Critical uncertainties: what keeps energy leaders awake at night

● Action priorities: what keeps energy leaders busy at work

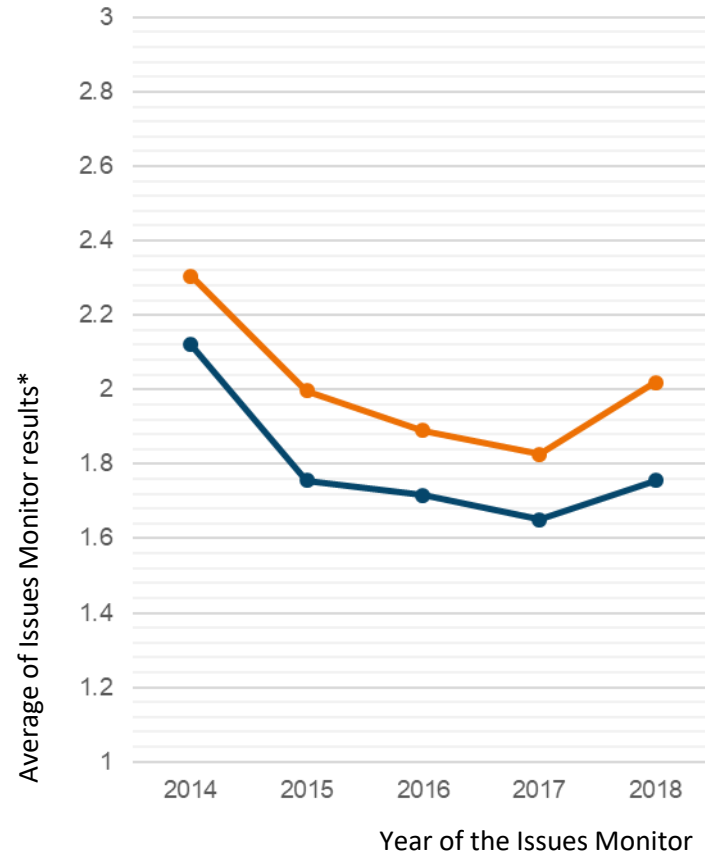


Deep dive into an issue: nuclear

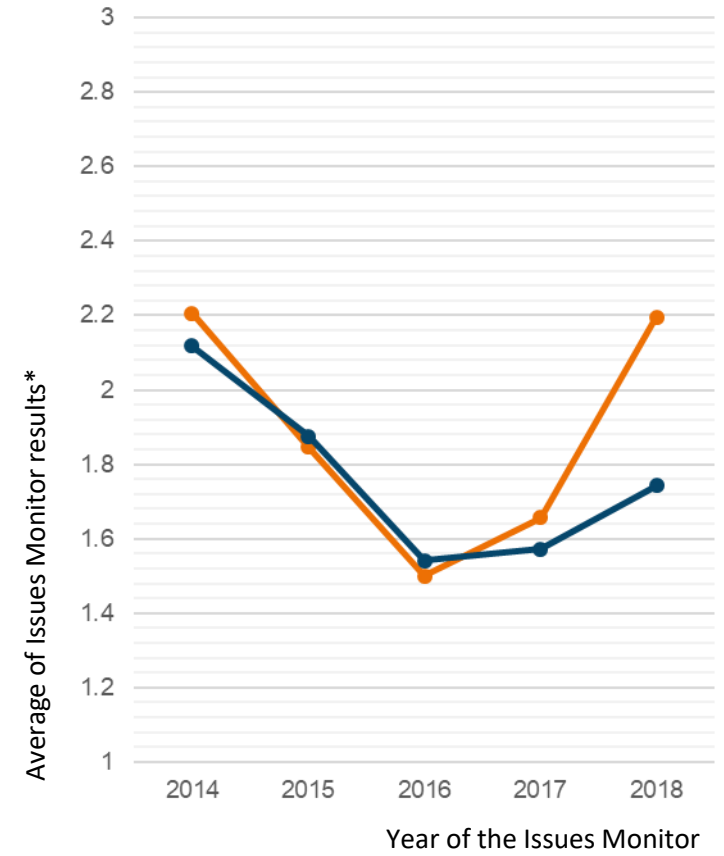
All responses



Europe

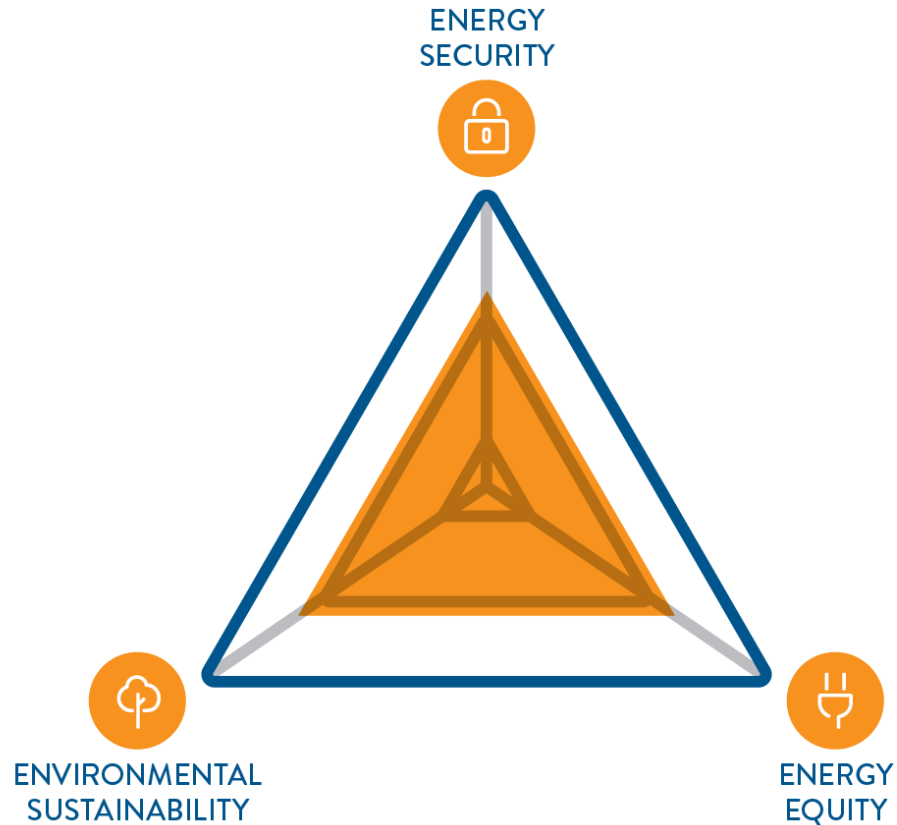


Governments in Europe



—●— Impact
—●— Uncertainty

Energy Trilemma – policy pathfinding tool



- The Trilemma provides a scalable conceptual framework to assess energy policy performance using dimensions of security, equity and sustainability
- It aims to support stakeholders have an informed and continuing dialogue about improving energy policy to better navigate the energy transition



TRILEMMA

2019 Trilemma Highlights

TOP 10 OVERALL RESULTS

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

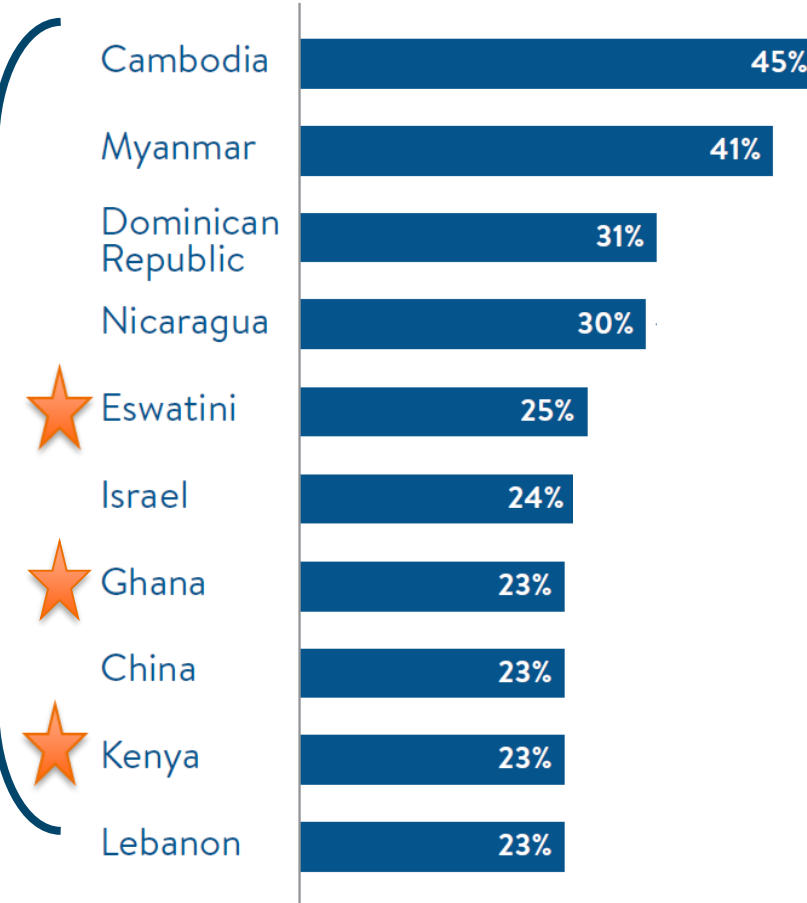
Not too different to previous reports as energy policies relatively stable

Further improvement among top performing countries more challenging – incremental rather than step-change but greater focus on sustainability

Key drivers of positive change include extended access, increasing electrification and investing in infrastructure

Reflect a diversity of positive developments that range between small changes significantly boosting to low starting points to fundamental and rapid transitions of energy systems

TOP 10 OVERALL INDEX SCORE IMPROVERS 2000 - 2019



2019 highlights

- There has been a general trend of improving Trilemma performance since 2000
 - 119 countries have improved over the 20-year period has improved overall Trilemma scores
 - only 9 countries have declined
- The rate of improvement in overall Trilemma performance increases as the transition progresses and encourages further policy progress
- The energy transition is increasingly characterized by step-changes in the sustainability dimension - improved performance can have co-benefits with the security dimension



In the past 20-years

119 of

128 countries improved Trilemma performance

while only 9 countries performance declined

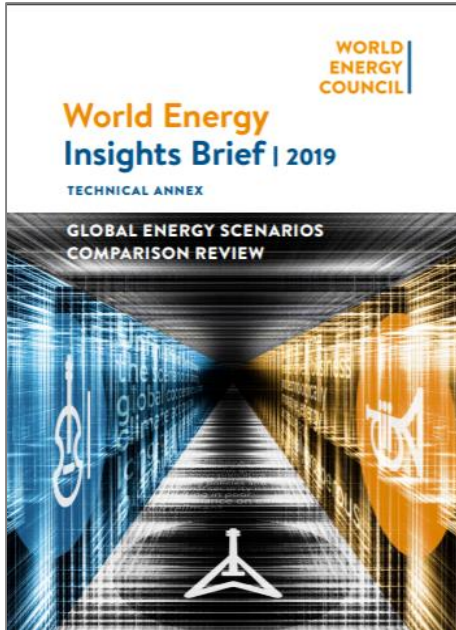


SCENARIOS

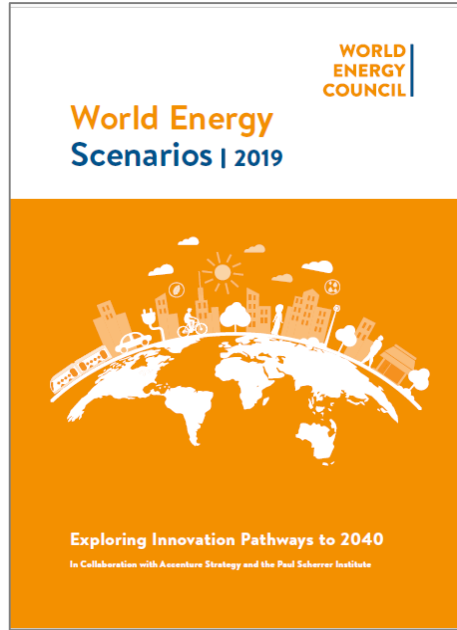
Bigger picture thinking tool

WORLD
ENERGY
COUNCIL

Benchmarking to
peers scenarios



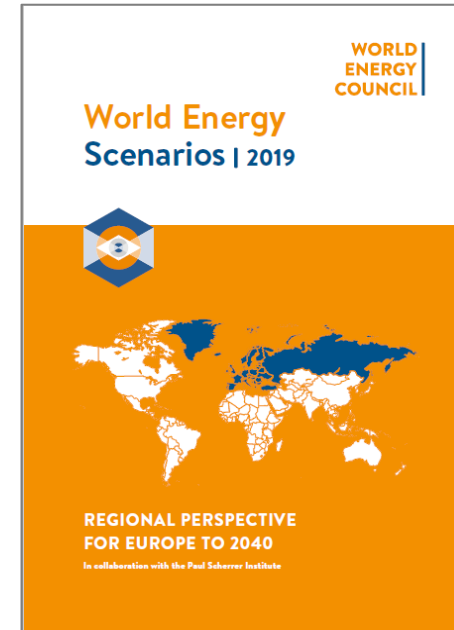
World Energy
Scenarios 2019



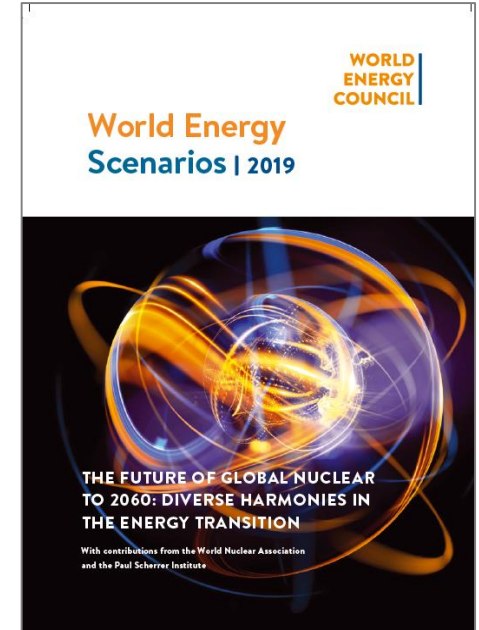
Designing for
Disruptions (CoDs)



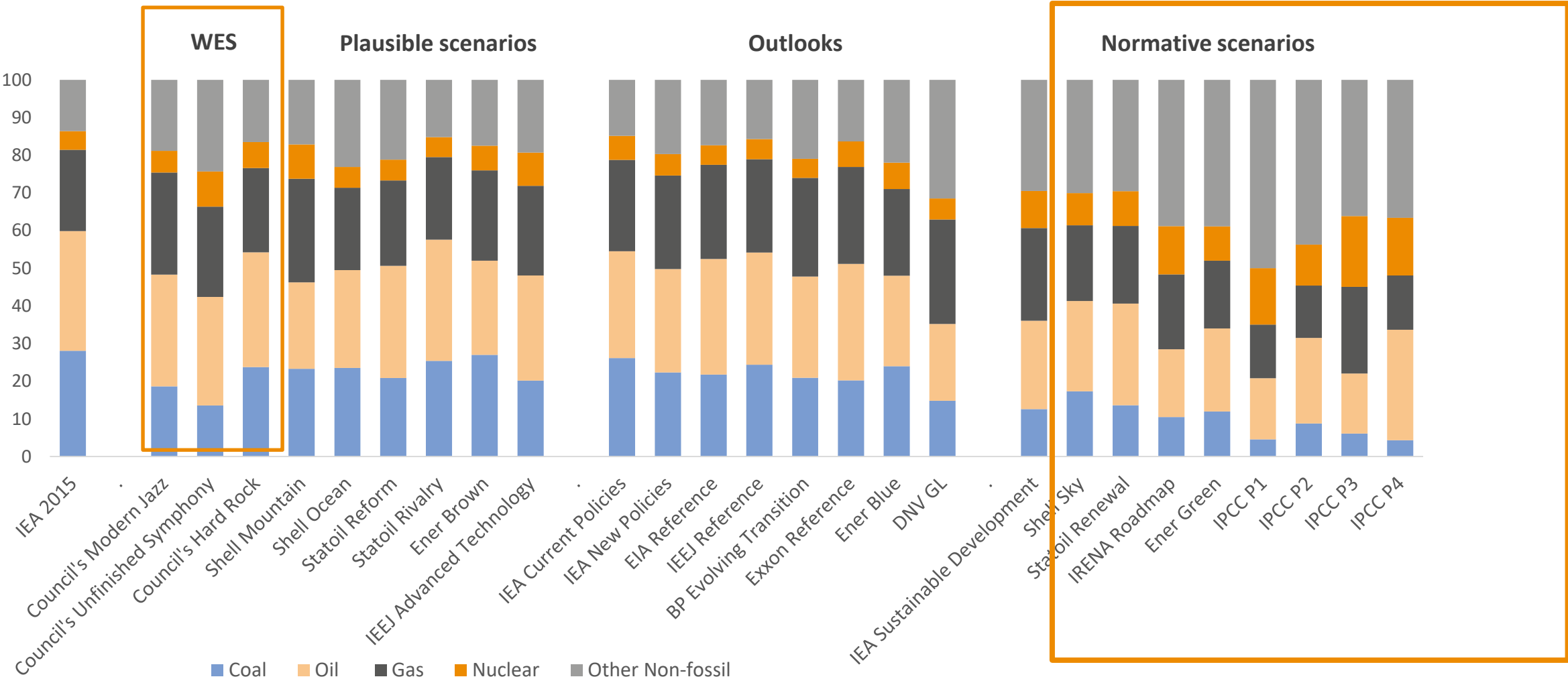
European regional
scenarios



Global Nuclear
perspective



Global scenarios comparison: Primary Energy mix by 2040 (%)





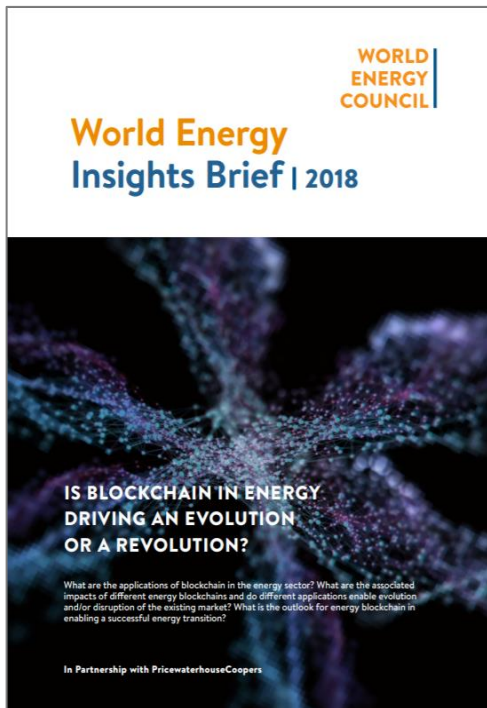
INNOVATION INSIGHTS

Use Cases, Innovation Forum, Webinars

2018

2019

2020

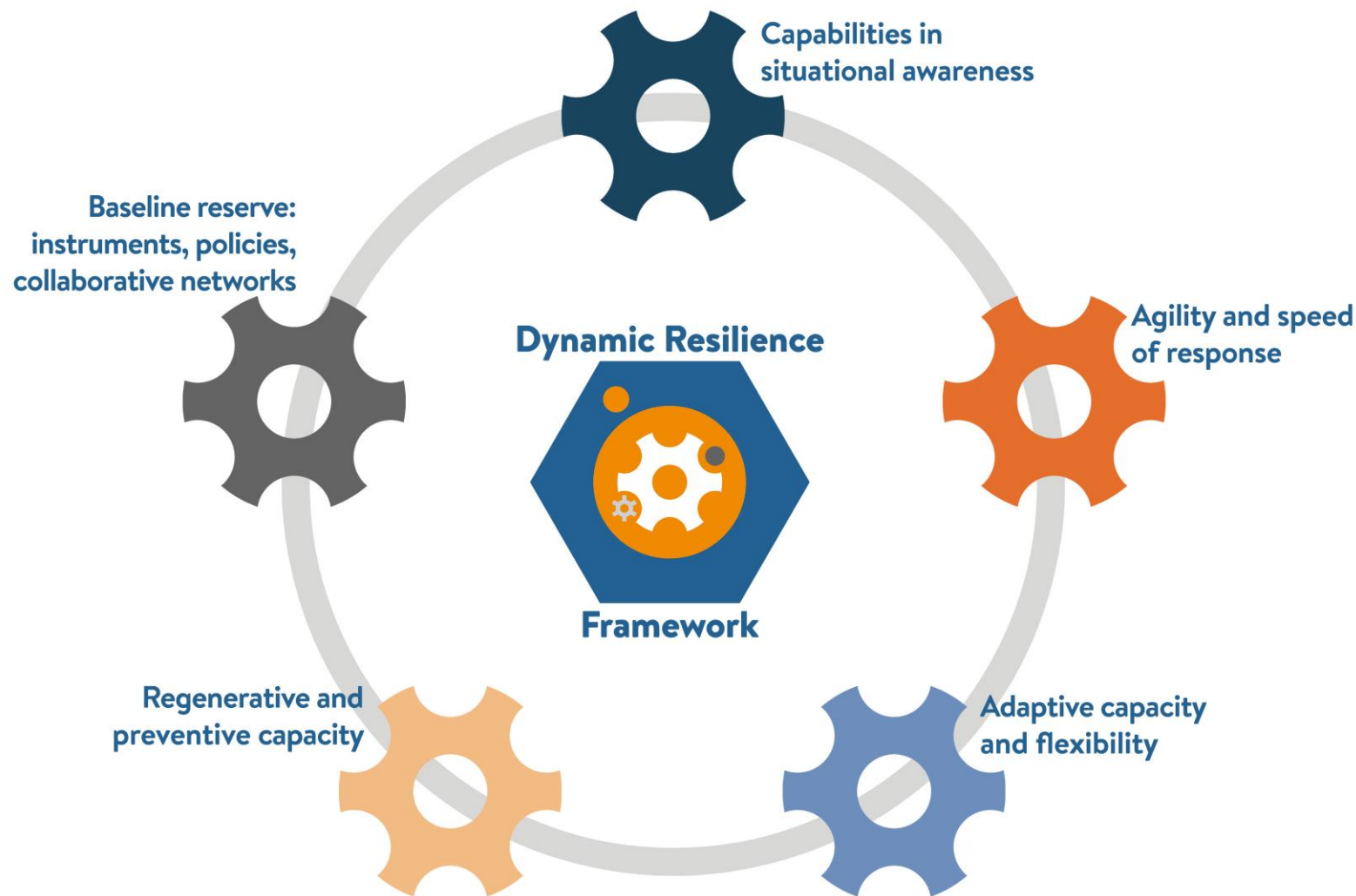


New themes:

- Energy Storage
- 100% Electrification
- *Market Design*
- CCS
- *Jet Biofuel...*

Dynamic Resilience Framework

- An **enabling framework** for managing emerging and systemic risks to energy systems and firms
- Helps enable energy firms and communities to improve their approach to **resilience to endogenous or exogenous shocks and disruptive innovations**



Thank you