

# THE EPIC CHALLENGE

Let your **energy transition challenge** spark its own solution

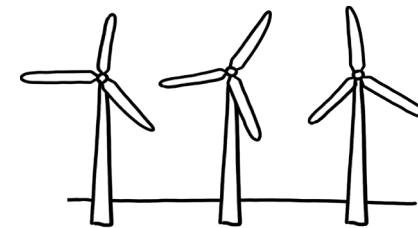
**Harness the power of digitisation to mitigate your risks in the transition from fossil fuels to decarbonized energy systems, by making your real-world challenge the focal point that unites the unique mix of digital innovators and stakeholders required to solve it.**

**Creating the robust data solutions to enable the game-changing decision making that will revolutionise your energy transition ambitions at scale, requires**

**unprecedented orchestration of diverse stakeholders and the hottest tech thinkers and creators. So why not let your Firebox Challenge ignite the co-ordination and collaboration necessary to enjoy the smoothest, most efficient shift to producing, consuming or managing energy in a more innovative and sustainable way?**



## Which area will inspire your Firebox Challenge?



### 1 Climate Change and Emissions Reduction

- Developing or deploying renewable energy solutions and encouraging the adoption of low-carbon technologies.
- Informing new financial instruments, such as green bonds and climate funds, to support sustainable projects based on social and environmental value creation.

### 2 Energy Management and Storage

- Emerging Technologies: Technologies like hydrogen fuel cells, carbon capture and storage (CCS), and advanced battery systems are still in early development stages and face issues related to scalability, efficiency, and cost.

### 3 Sustainable Energy Production

- Resource Extraction: Mining for critical minerals needed for renewable technologies can lead to environmental degradation if not managed sustainably.
- Ecosystem Impact: Renewable energy project design, such as wind farms, can disrupt local wildlife and ecosystems
- Supply Chain Sustainability: Ensuring that the supply chains for renewable technologies are transparent, manageable and sustainable.

### 4 Energy Grid Access and Design

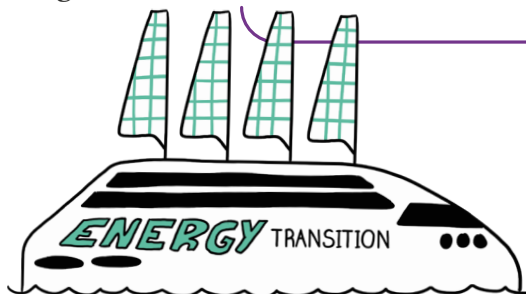
- Upgrading aging energy infrastructure to handle real and increasing demands, by integrating or leveraging renewable energy sources.
- Creating reliable and affordable access to energy supplies across the country to underserved and remote areas.

### 5 Efficient and Effective Energy Usage

- Supporting end users with affordable energy offers, as fluctuations in energy prices and market conditions can create uncertainty for the consumer
- Conducting energy audits to identify areas where energy is being wasted and implementing actions to reduce or eliminate waste.

### 6 Industry Collaboration and Data Sharing

- Knowledge Sharing through interoperable systems: Sharing information, data and best practices across sectors and regions to accelerate innovation within Energy, by understanding the gaps in data, resources and expertise.



**Be part of Gemini Firebox**

To discuss taking part in the Gemini Firebox programme, email [Ryan.Goodman@cp.catapult.org.uk](mailto:Ryan.Goodman@cp.catapult.org.uk)

