

TESA The Energy Systems Accelerator

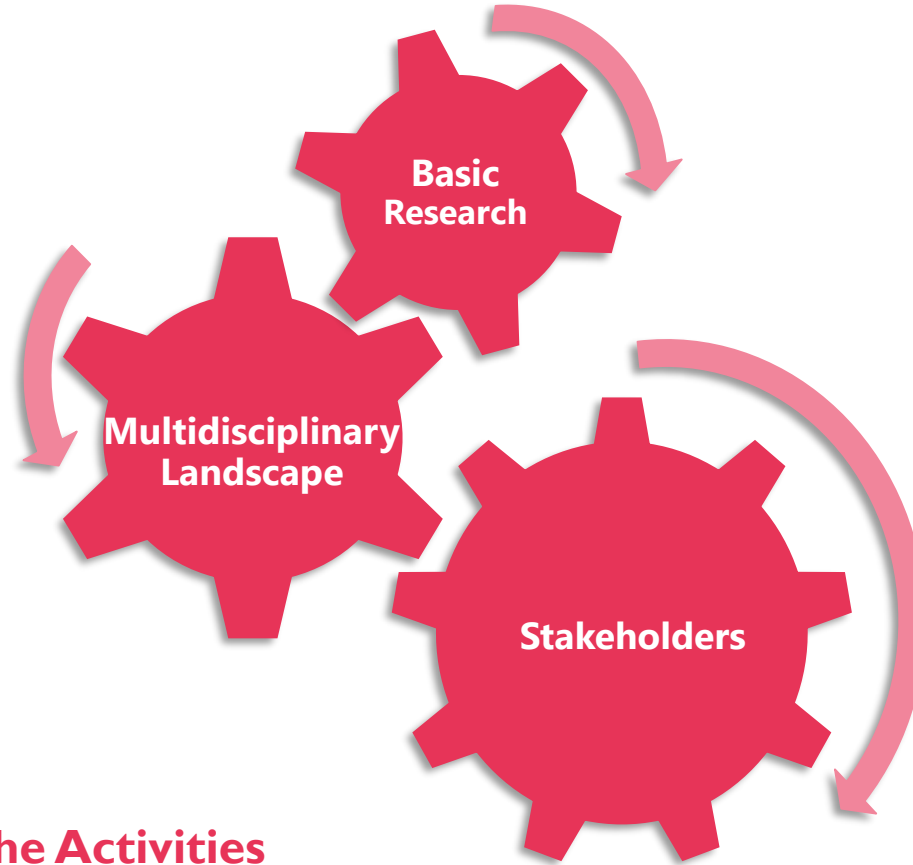


The Challenge

The UK is legally obliged to achieve net zero carbon by 2050. The scale and urgency of this target is unprecedented. Economic stimulus should enable a levelling-up recovery. The **energy system** (electricity, heat, mobility & gases) is key to both.

The challenge is to effectively **focus** the UK's innovative **human capital** to create a **flourishing** net zero carbon energy system. A systems of systems framework is required, synergistically leveraging multi-stakeholder innovation, to address six themes:

- Attracting **private sector investment**.
- Making consistent **strategic decisions**.
- **Reskilling** people to national standards.
- Aligning **national** requirements with **local** needs and opportunities.
- Supporting appropriate **regulation**.
- Accelerating **innovation** for societal good.



The Activities

- SPRINTS, that bring together all national stakeholders, to develop robust long-term solutions to a net zero carbon energy system operation.
- Co-created innovation with users and the investment community, with accelerated learning at its core.
- Research, development and trials of technology, services and business models
- Visiting Fellowships (academia and industrial) to both fast-track knowledge exchange and diffuse innovation across the UK



The Vision

Create a vibrant innovation zone that maximises the human innovation capital to deliver a world leading net zero carbon energy system.

The zone will bring together stakeholders involved in all energy vectors (electricity, heat, mobility & gasses); the entire energy supply chain (investors, generation, storage, transmission, system management, regulation, suppliers and customers); all disciplines (social and technical sciences and innovation); and the technology development cycle.

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The Location

TESA will be a 10,000m² international facility where up to 800 practitioners, national stakeholders and academics work and interact, to maximise serendipitous creativity.

It includes space for co-creation, entrepreneurs and knowledge exchange. The building operation will be net carbon negative.

Osney Mead is 5 minutes from the Oxford railway station, with space to be a global innovation hub.

TESA will integrate with accommodation and innovation hubs planned for the site and the surrounding area.

