

Prospering from the Energy Revolution

10th Cleanpower Smart Grids 2019, 1-2 July
Cambridge, UK. www.cir-strategy.com/events

Matt Hastings – Energy Systems Innovation Lead
matt.hastings@innovateuk.ukri.org
[@Capt_Kilowatt](https://twitter.com/Capt_Kilowatt)



The Industrial Strategy Challenge Fund



AI & Data Economy

We will put the UK at the forefront of the artificial intelligence and data revolution



Future of Mobility

We will become a world leader in the way people, goods and services move



Clean Growth

We will maximise the advantages for UK industry from the global shift to clean growth



Ageing Society

We will harness the power of innovation to help meet the needs of an ageing society

UK Research
and Innovation

Wave 2 challenges



Audience of the future (£33m)



Data for early diagnosis and precision medicine (£196m)



Prospering from the energy revolution (£103m)



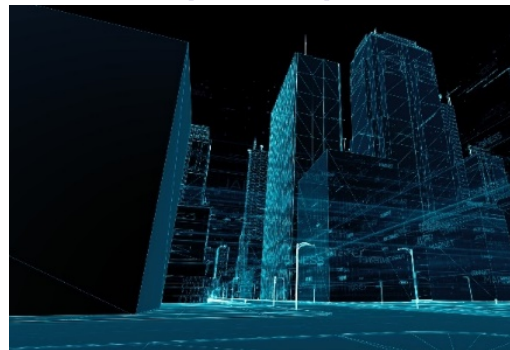
Healthy ageing (£98m)



Next generation services (£20m)



Quantum technology (£20m)



Transforming construction (£170m)



Transforming food production (£90m)



UK Research and Innovation

Prospering from the Energy Revolution: Programme Objectives

1) **Prove investable, scalable local business models by 2022, that:**

- deliver cleaner, cheaper energy services
- build more prosperous and resilient communities
- benefit the whole energy system
- use integrated, intelligent approaches

2) **Unlock 10x future private investment** in local integrated energy systems in 2020s (vs business as usual)

3) **Accelerate new products and services to commercialisation** creating real world proving grounds

4) **Build UK leadership** in integrated energy services provision

Energy Revolution:

Committing >£100m in public funding

Future energy model proving



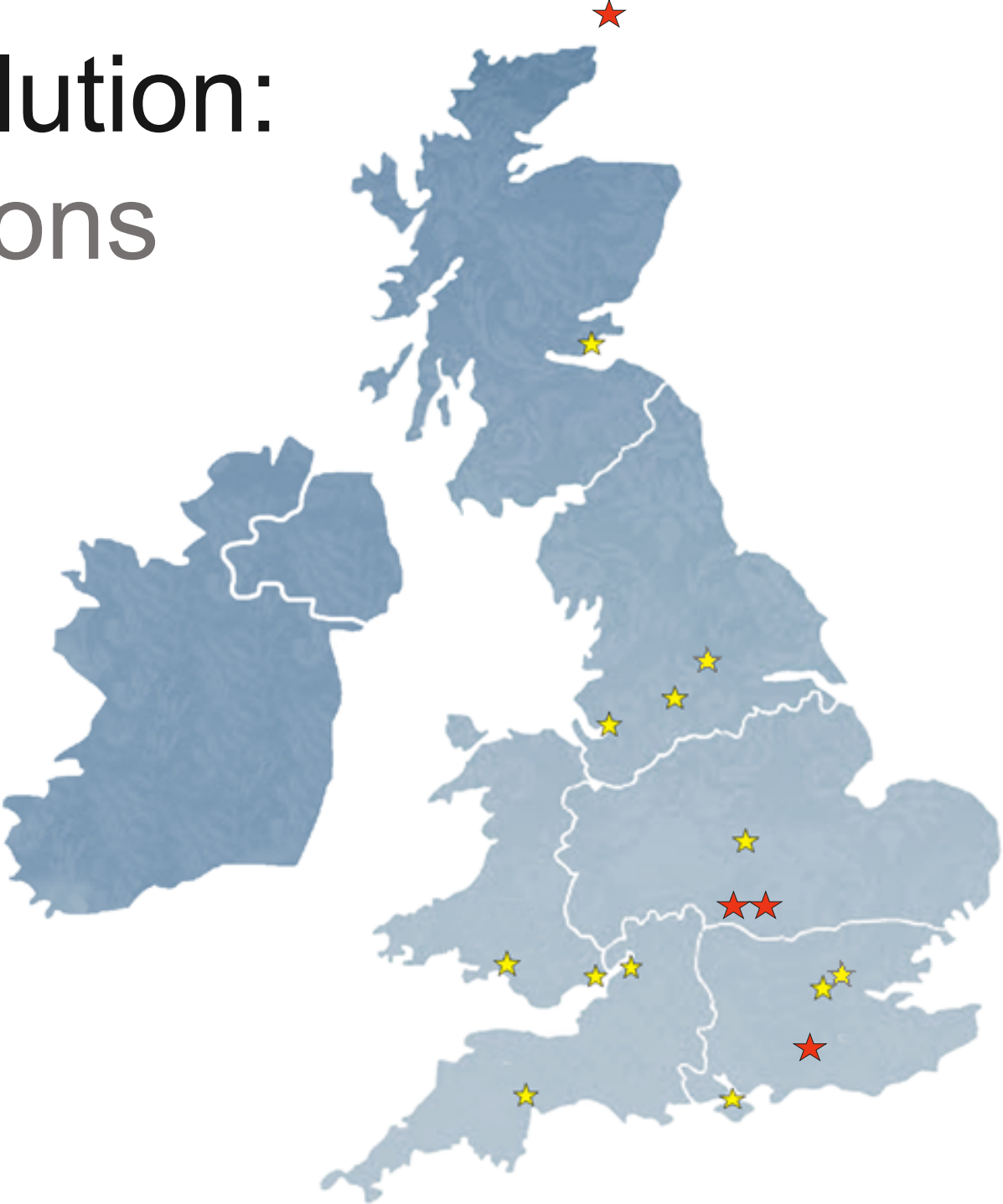
Innovation Accelerator



Research, Expertise, Capability, Coordination



Energy Revolution: Project locations



UK Research
and Innovation

Detailed Designs of Smart, Local Energy Systems

Competition summary



Projects must develop local energy system designs fit for implementation and replication in the 2020s.

- £30m funding
- Closing date for applications 7th August
- £3m – £5m grant funding/project
- Delivery Jan 2020 – Dec 2021

On completion of the 24 month project you must provide compelling, quantified evidence that your design could:

- Reduce bills by at least 25%
- Unlock substantial private investment to build and replicate the approach
- Attract up to 10x more investment in energy systems technologies
- Create high value local jobs and UK supply chain growth
- Reduce CO2 emissions

Key Technology Components for Local Energy Systems

Competition summary



- £5m funding
- Opens 22nd July
- Closes 9th October
- £100k - £500k per project
- Delivery Jan 2020 – Mar 2022

Themes:

- Electricity and/or gas network monitoring hardware and software applications
- Local and national electricity networks/markets integration (ESO and DSO)
- Multi-site, real time generation optimisation across multiple operators/aggregators
- Enhancing the efficiency of heat networks
- Inter-seasonal heat and cold storage
- Optimised vector coupling solutions (electricity, heat, transport)

Energy Data Task Force Findings



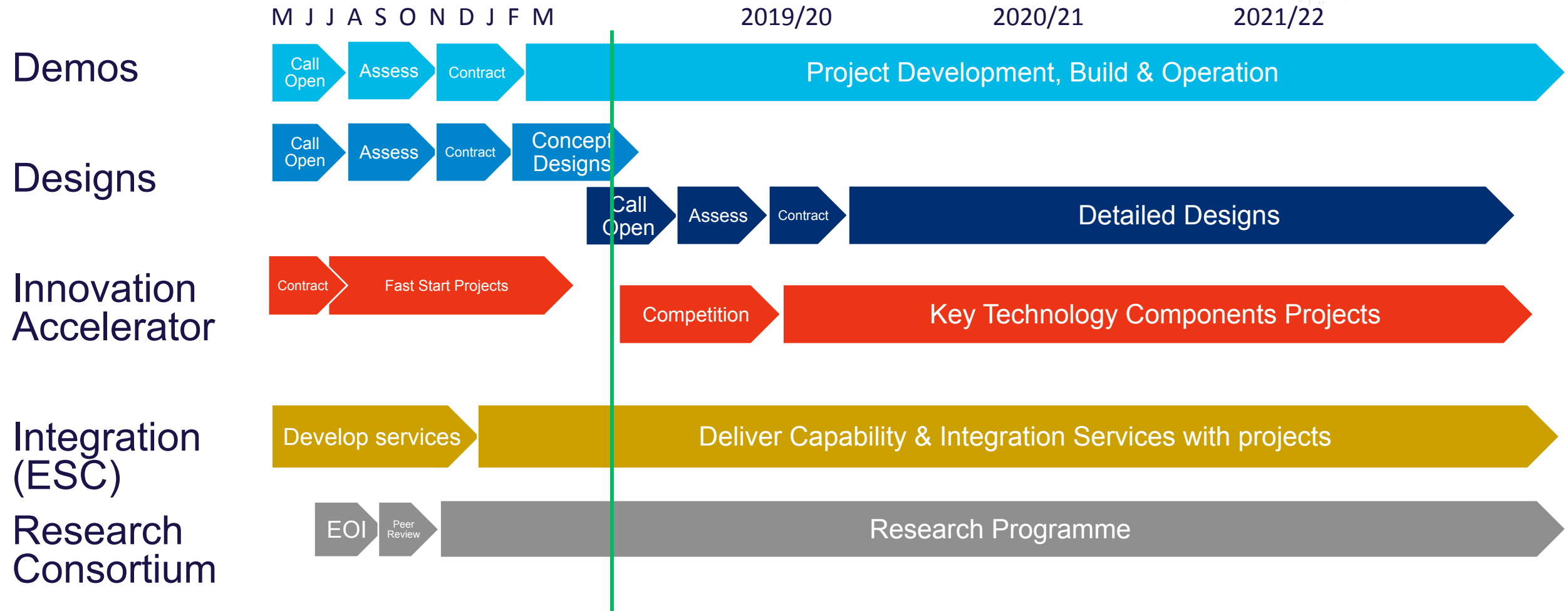
- Data Visibility
- Infrastructure and Asset Visibility
- Operational Optimisation
- Open Markets
- Agile Regulation

Recommendations

- Data catalogue with mandated industry participation (Electralink, Gemserv, Elexon, DCC etc)
- Asset Registration Portal: PV, EV, battery, transformer, substation etc.
- Visibility of Infrastructure and Assets: digital energy system map of infrastructure and assets, enabling optimisation of investment and creation of new markets.

Watch this space for upcoming data platform competition!

Delivering the programme



Thank you.

10th Cleanpower Smart Grids 2019, 1-2 July
Cambridge, UK. www.cir-strategy.com/events

Matt Hastings – Energy Systems Innovation Lead
matt.hastings@innovateuk.ukri.org
[@Capt_Kilowatt](https://twitter.com/Capt_Kilowatt)

