

Prospering from the Energy Revolution

Proving cleaner, cheaper local energy
approaches that people want to buy in to.

Rob Saunders
Challenge Director



The Industrial Strategy Challenge Fund



UK Research
and Innovation

Our five foundations



Ideas
the world's most innovative economy



People
good jobs and greater earning power for all



Infrastructure
a major upgrade to the UK's infrastructure



Business Environment
the best place to start and grow a business



Places
prosperous communities across the UK



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

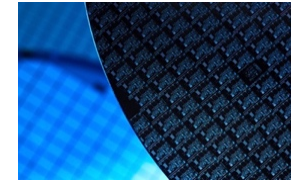


Ageing Society
We will harness the power of innovation to help meet the needs of an ageing society



Industrial Strategy Challenge Fund... ...not business-as-usual Innovation

- Focused on **improving productivity and economic benefit** across the UK
- Learning from the 'DARPA approach'
- Clear **measurable** challenges are needed
- Needs clear **industry buy-in** to be successful and should be **ambitious**



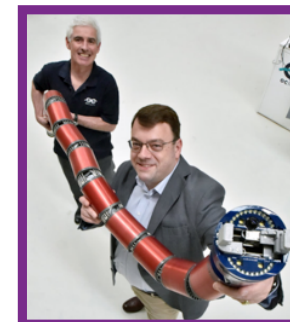
Wave 1 Programmes



Leading-Edge Healthcare Challenge
(including Medicines Mfg)
up to £188m



Faraday Battery Challenge
up to £246m



Robotics and AI in extreme environments Challenge
up to £93m



Next Gen. Affordable Lightweight Materials Mfg
up to £26m



Autonomous Vehicles
up to £38m



National Satellite Test Facility
up to £99m

Underpinning UKRI investments (Wave 1a) up to £244m

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Wave 2 challenges

Audience of the future (up to £33m)



Data to early diagnosis and precision medicine (up to £196m)



Prospering from the energy revolution (up to £103m)



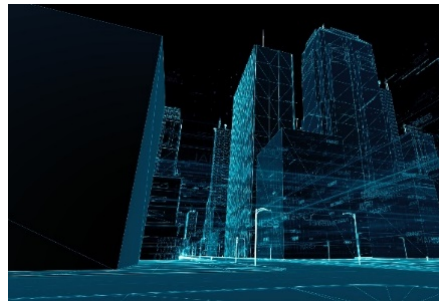
Healthy ageing (up to £98m)



Next generation services (up to £20m)



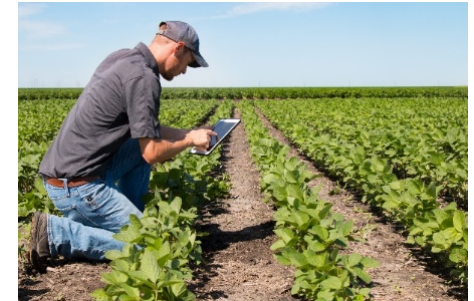
Quantum technology (up to £20m)



Transforming construction (up to £170m)



Transforming food production (up to £90m)



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And Wave 3 in business case approval for launch.....



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Energy Revolution: The Macro-challenge context

Climate change



High costs
Low trust



Investments stalled

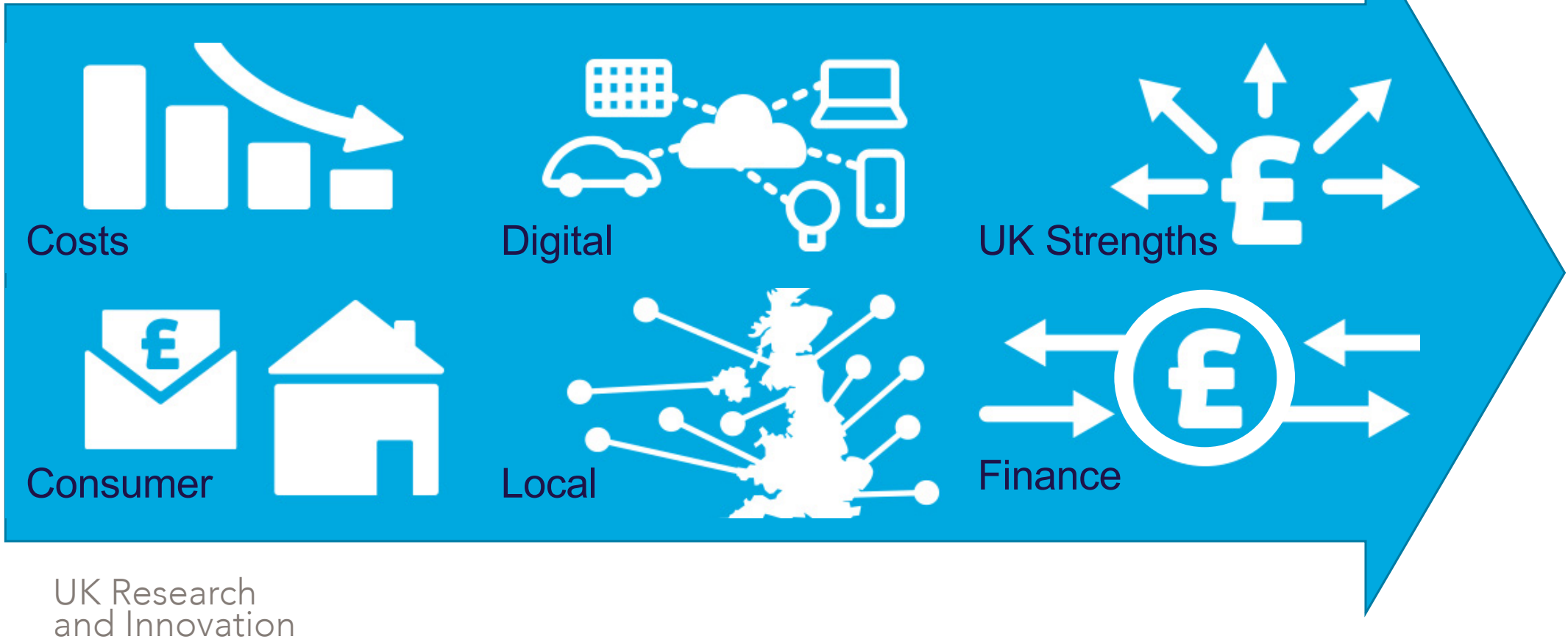


Regulatory & market barriers

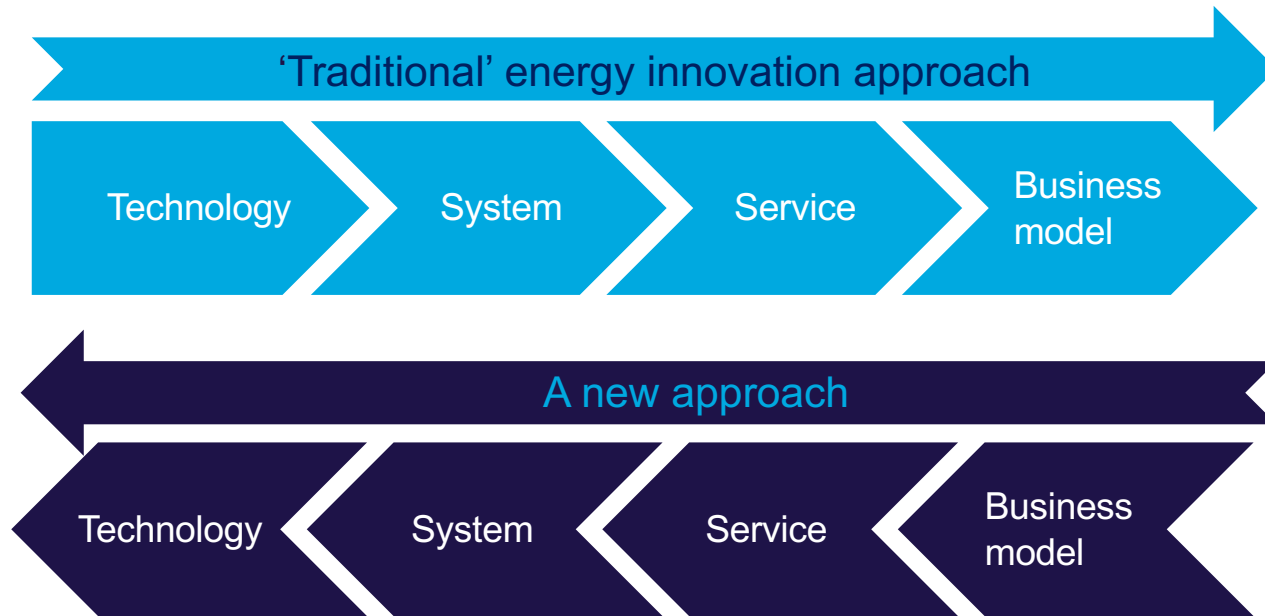


Need for change

Energy Revolution: The Opportunity



Energy Revolution: Pull, not push





Energy Revolution: Programme Objectives

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

Unlock 10x future private investment

in local integrated energy systems in 2020s (vs business as usual)

Accelerate new products and services to commercialisation

creating real world proving grounds

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



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Demonstrators & Designs:

Large-Scale power, heat and mobility delivery



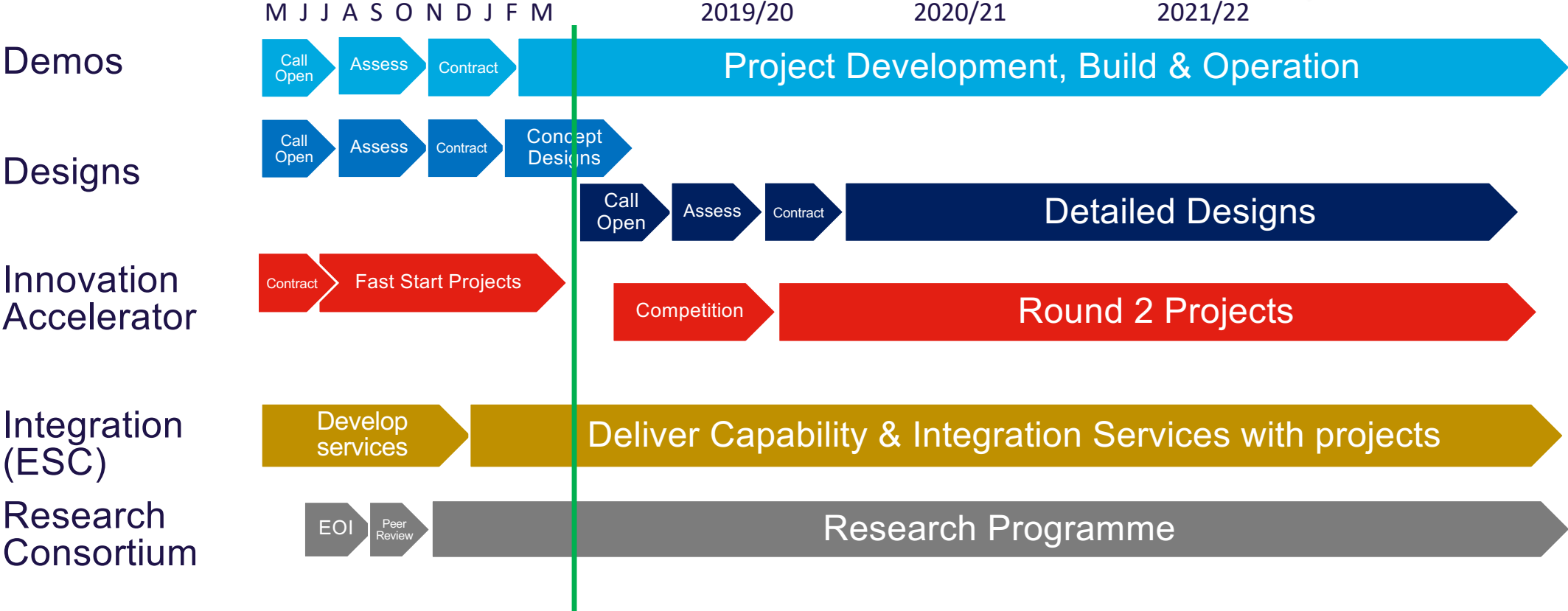
Integrated intelligently to please consumers



In scalable, replicable and investable models



Delivering the programme



Thank you