



Prospering from the Energy Revolution

- An Industrial Strategy Challenge Fund Programme

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UK Research
and Innovation

Context: An Innovation-rich Industrial Strategy



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

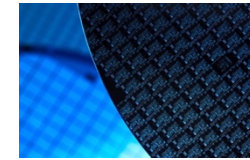


Ageing Society
We will harness the power of innovation to help meet the needs of an ageing society

The Industrial Strategy Challenge Fund..... ...A new innovation approach



- 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 2 challenges (launched 2018)



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)



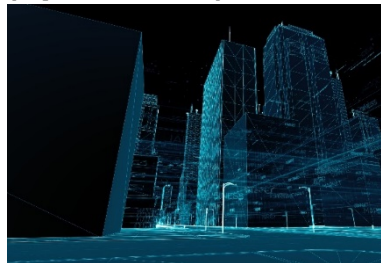
Healthy ageing (up to £98m)



Next generation services (up to £20m)



Quantum technology (up to £20m)



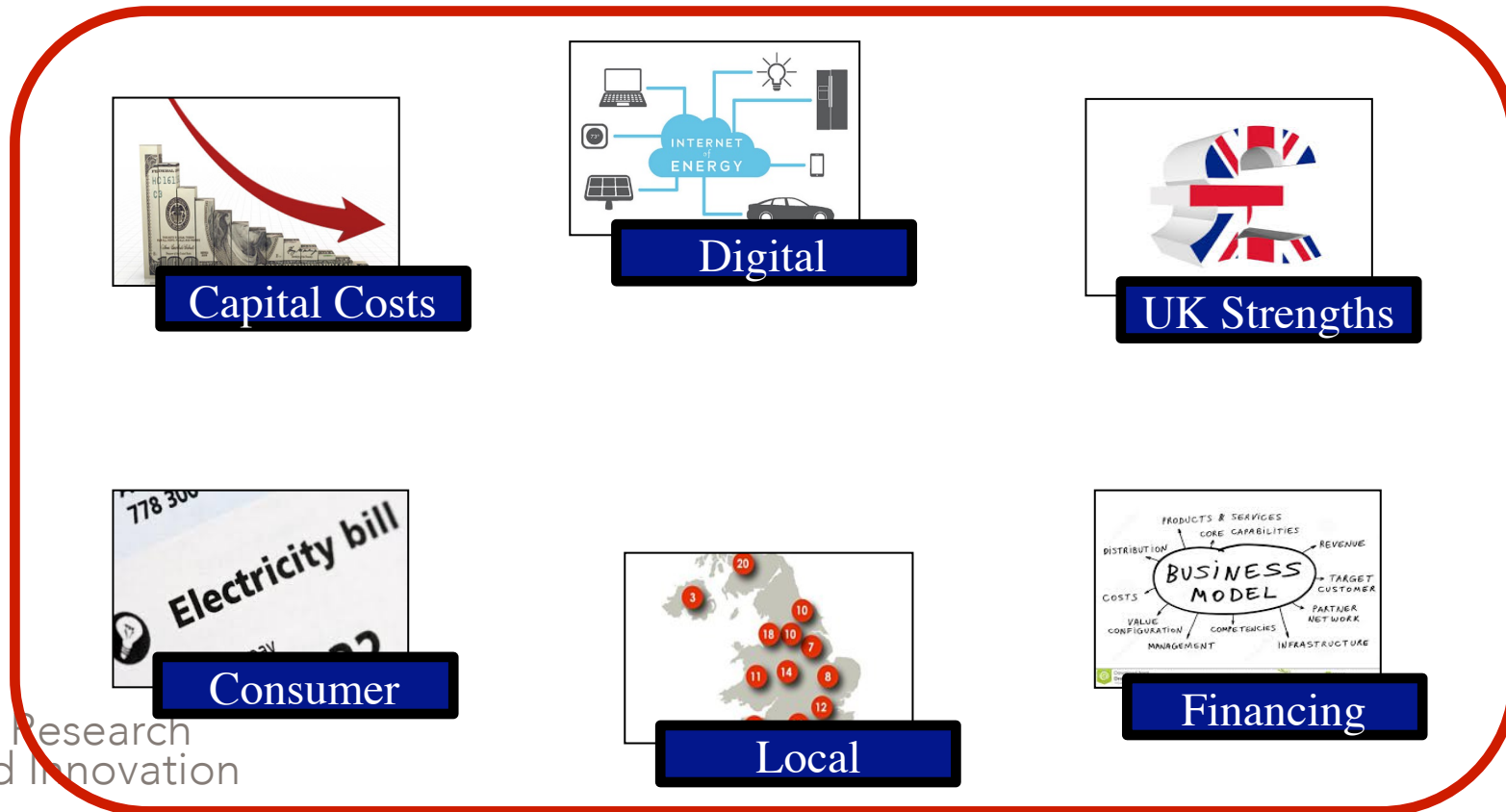
Transforming construction (up to £170m)



Transforming food production (up to £90m)



Energy Revolution: The Context

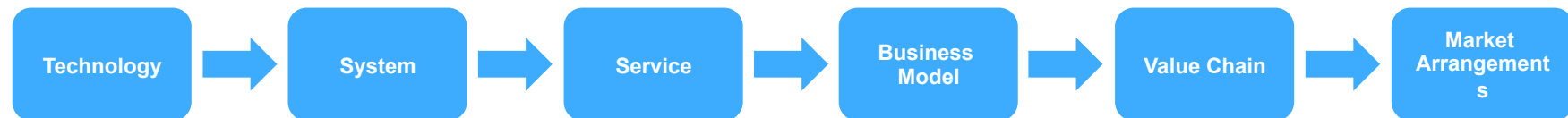


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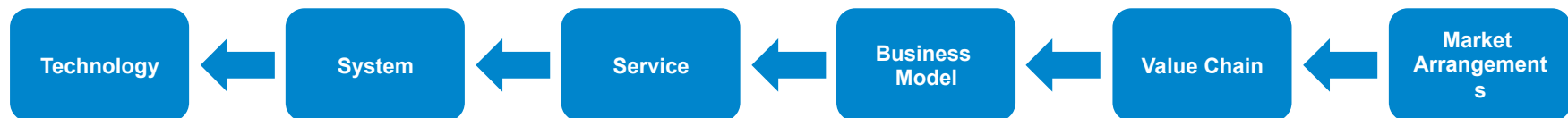
Energy Revolution: Pull, not push.



“Traditional” Energy Innovation Approach



A new approach...





The energy revolution challenge:

Prove by 2022 that local, investable, consumer-centric energy approaches can create prosperous clean energy communities across the UK

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

Prospering from the Energy Revolution

Innovate UK

£102m programme to prove that intelligent, local consumer-centric energy approaches can create prosperous clean energy communities across the UK

- Emissions < CB5
- Lower consumer bills
- 10x investment 2020+
- Increased local value capture

Demonstrator, Designs and research consortia awards to be announced October / November.

Practical Demonstrators



£40m

Future Designs



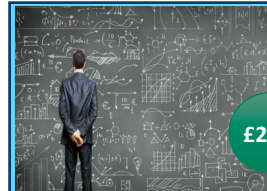
£30m

Future Energy Model Proving



£10m

Innovation Development



£22m

Research Programme (Academia)
Programme Integration Service (ESC)