

CATAPULT

Energy Systems Catapult Update

**14th APGTF Annual Workshop
13th March 2014**

A new force for innovation & growth

- Part of a **world-leading network** of technology and innovation centres
- **Bridge the gap** between businesses, academia, research and government
- Long-term investment to **transform** the UK's ability to create new products and services
- Open up global opportunities for the UK and **generate sustained economic growth** for the future
- Being established and overseen by the **Technology Strategy Board**

7
Catapults

2013
All Catapults up
and running

£1bn
Private & public sector
investment

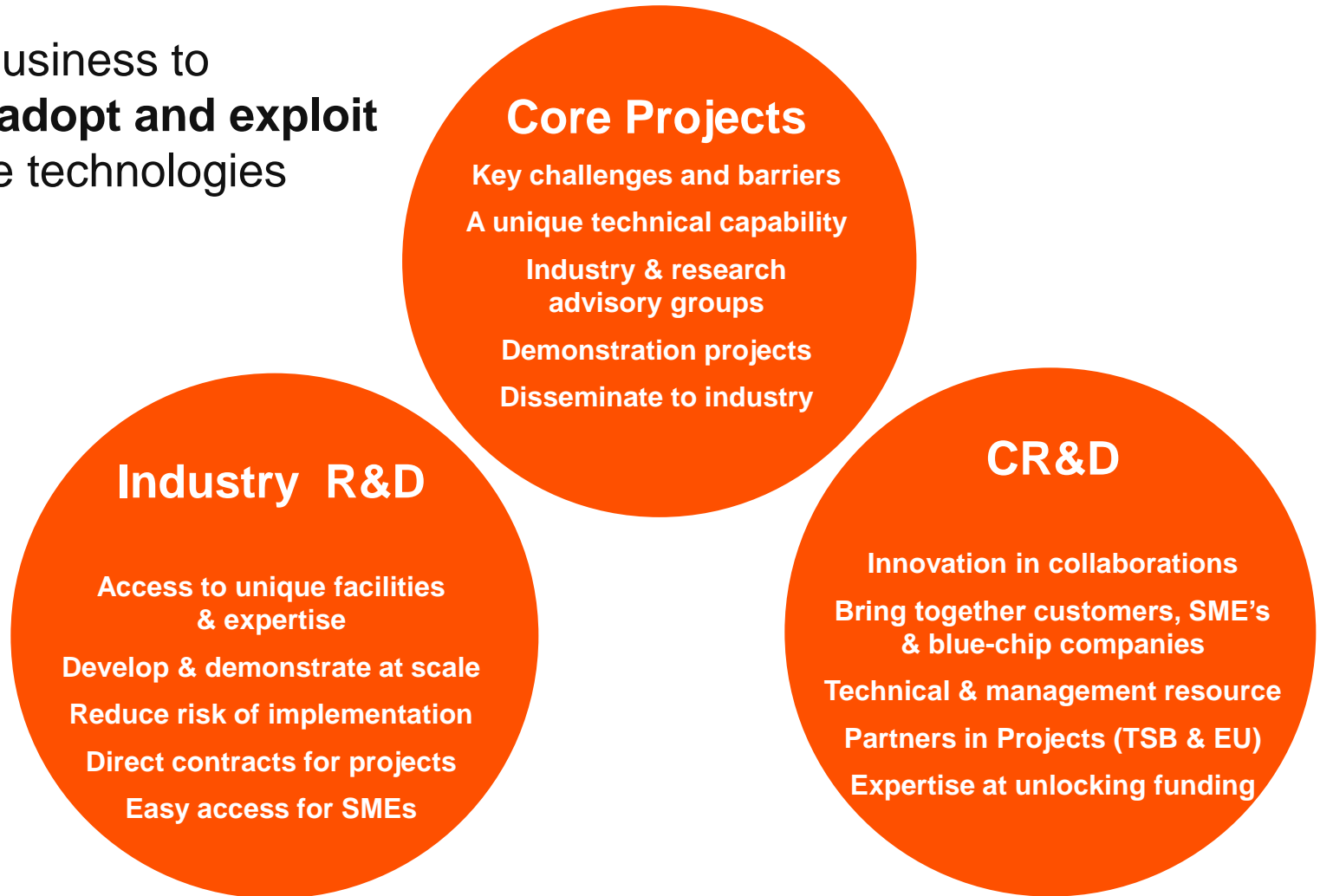
What is a Catapult centre?

- Business-focused technology and innovation centre that makes world-leading technical capability available to businesses to solve their technical challenges
- Provides:
 - Access to world-leading technology & expertise
 - Reach into the knowledge base for world-class science
 - Capability to undertake collaborative R&D projects with business
 - Capability to undertake contract research for business
 - Strongly business-focused with a professional delivery ethos
 - Create a critical mass of activity
 - Skills development at all levels

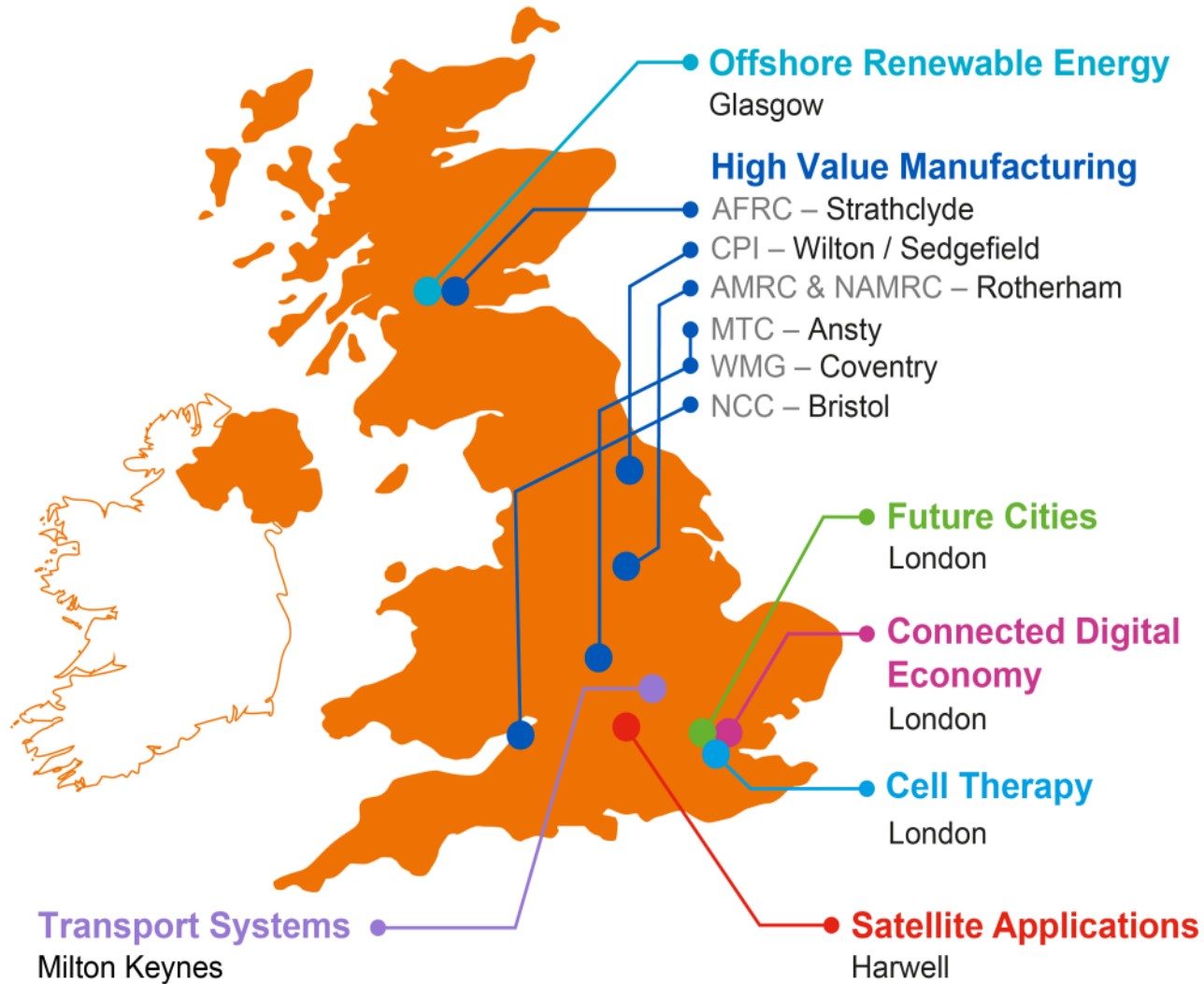
A Catapult centre will enable UK to attract and anchor knowledge-intensive activities of globally mobile companies

- Specialist technical expertise and skills required across the sector from SMEs, supply chains and tier one companies, particularly multi-disciplinary expertise
- High-value capital equipment/facilities/infrastructure beyond the affordability of individual companies
- Technology/sector leadership as an independent “repository of knowledge”
- Long-term investment in technology platforms or demonstrators beyond the normal business-planning horizons

Helping business to
identify, adopt and exploit
innovative technologies



Catapult Locations



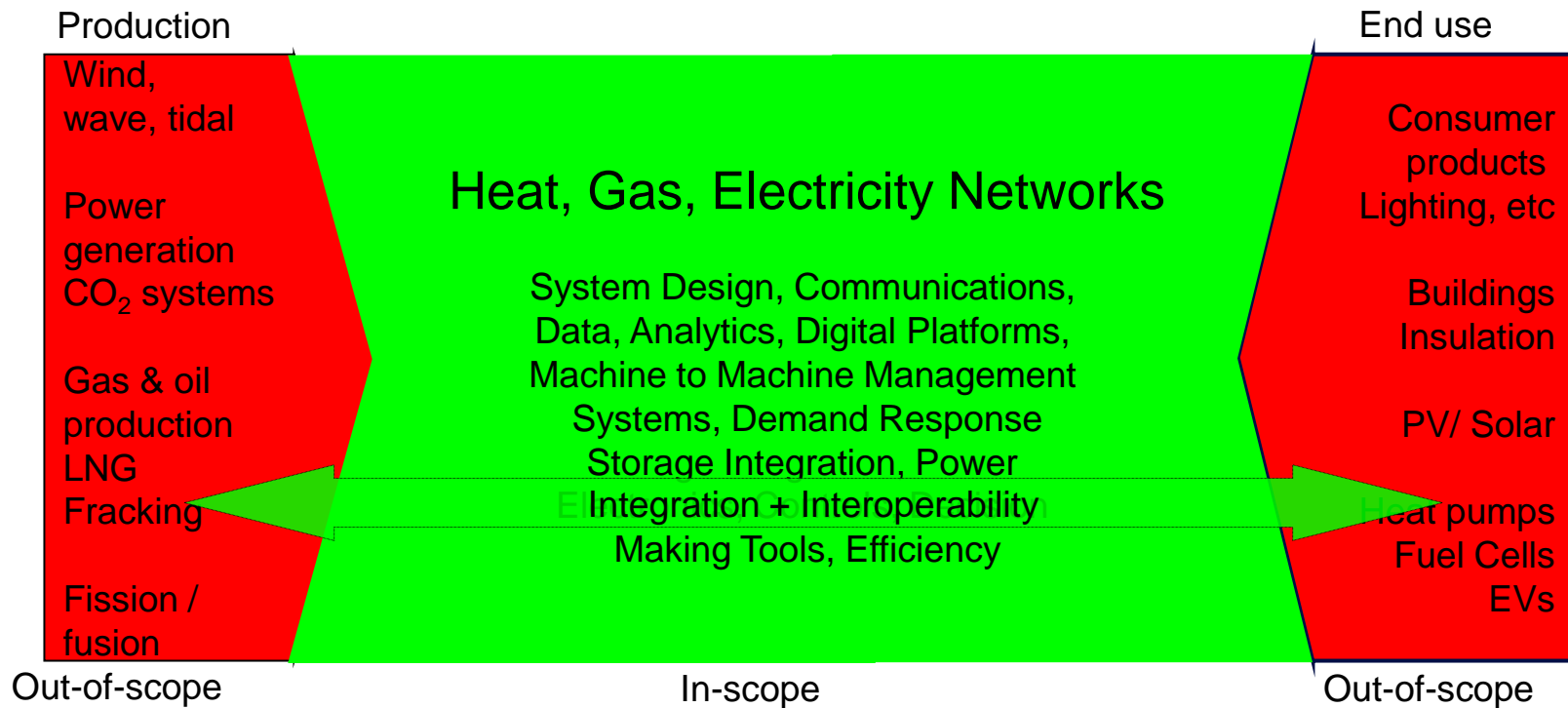
UK Energy Systems must evolve for next 50y of Secure, Affordable, Sustainable energy



- Vince Cable announces “Energy Systems Catapult launch for April ’15”
- Catapults - recap
 - Physical centres, providing capability:
 - skills and assets e.g. specialised models, data, test and demo facilities that would not exist without Government intervention
 - A long term repository of knowledge
 - enable industry to exploit new and emerging technologies from research
 - accelerate early development into commercial products, services & solutions
 - Deliver repeatable benefit for UK economic
- £1bn UK Investment: 7 already exist
- Open access Business Model
 - >£10m * 3, Govn, Partners, Industry

- Need for Affordable energy, Secure / Reliable supplies and networks, with reducing impact on the Environment (Trilemma)
- Profound electricity production mix change
 - Coal & nuclear stations shut down; replaced with intermittent renewables eg wind+solar.
 - Spare capacity down to 2-5%, previously ~15%
 - Rising risk of cuts
- Current energy systems designed for uni-directional demand led flows
- 90% of evolution focus on electricity (but only 18% UK end user consumption, while heat over 40%); little cross vector (fuel) optimisation effort to date
- Need for a “Whole System” multi vector approach identified

- Existing intervention in generation and demand
- Catapult focus on the evolution of Networks & Systems
 - Includes technology, business models, policy and standards



Sept '13: to Feb '14	Vince Cable announcement; IAG set up Sector consultation, Enhanced Business Case
Apr '14	TSB - Board Approval Recruit Chair / Board / CEO 5 yr plan
Dec '14	Recruit team, offices
Apr '15	Catapult formal launch

Funding Allocation:

£10m pa from Apr '15

Set-up costs of £1-1.5m in '14/'15

TSB consultation Sept '13 – Feb '14

Representatives >250 Companies, Universities and Public Sector
Bodies

Workshops, 1 to 1's , questionnaires, senior dinners

Energy Systems Catapult Intervention

CATAPULT

