

# The Funding landscape, UK and Europe

Jenni McDonnell, KTN

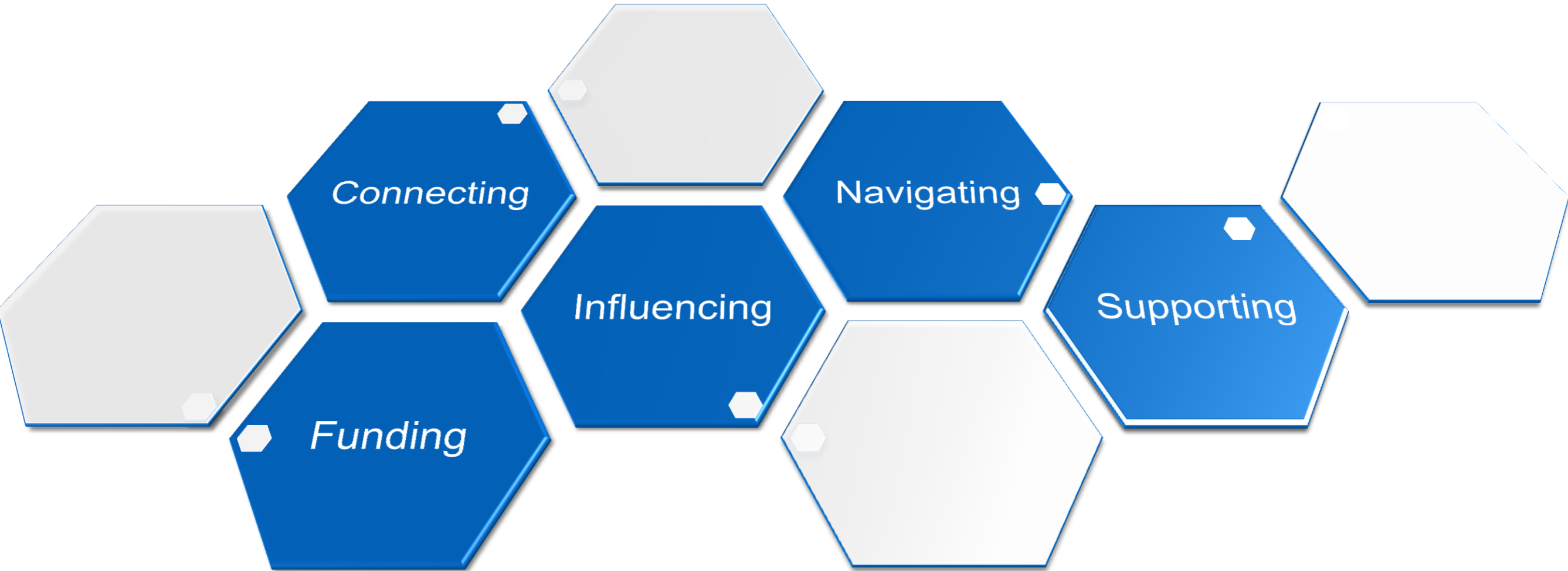
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# Introducing The Knowledge Transfer Network

## What we do

- KTN is the UK's innovation network. It brings together businesses, entrepreneurs, academics and funders to develop new products, processes and services
- We help business to grow the economy and improve people's lives by capturing maximum value from innovative ideas, scientific research and creativity

# Our Services



# UK Funding Landscape

## InnovateUK

New Delivery plan 2016 – 2017

Four innovation sector programmes

- Infrastructure Systems
- Emerging and enabling technologies
- Health and Life Sciences
- Manufacturing and Materials

Plus Open innovation programme – open to any sector

Competitions will be much broader in scope and will focus on groups of inter related sectors.

# UK Funding Landscape

## InnovateUK

### Infrastructure Systems theme

Optimising transport and energy systems and integrating them with other systems such as health and digital in an urban context

#### Priority activities

- Energy systems - electricity, gas and heat networks
- Energy supply - nuclear and offshore wind
- Transport systems - intelligent mobility
- Smart and resilient infrastructure
- Urban living – integrating multi urban systems

# UK Funding Landscape

## InnovateUK

### Infrastructure Systems theme

- Two broad Infrastructure Systems competitions
  - Round One opens July 2016 up to £15m
  - Round Two open January 2017 up to £15m

To support businesses with scalable solutions for system challenges across energy generation and supply, transport and urban living:

- solutions for affordable, sustainable and secure energy delivery
- solutions for intelligent mobility
- integrated solutions to systemic challenges in urban areas
- resilience of infrastructure and cities to environmental and societal pressure

# UK Funding Landscape

## InnovateUK

### Infrastructure Systems theme

- Continue to invest in the Energy Systems, Future Cities, Transport Systems and Offshore Renewable Energy Catapults
- Conduct a Future Cities entrepreneur mission to India, aligned with the Newton Fund Q3
- Cities Integrated by Design competition – follow from phase 1
- Deliver the Energy Research Accelerator £60m

# UK Funding Landscape

## InnovateUK

### Open programme

This enables businesses to address high-growth opportunities when their concept or idea might not fit one of the Innovate UK sectors or is at the interface of multiple themes with differing scopes

- Two 'open' funding competitions per year for applications from any sector
  - Round one – June 2016 up to £14m
  - Round two – December 2016 up to £14m
- Open knowledge transfer competitions through the year up to £31m
  - Open all year, similar format to SMART
- Open 'growth and scale' competition in Q3 up to £2m
  - Proof of market activities



# UK Funding Landscape

## Energy Catalyst

- £9million budget
- Opened 4<sup>th</sup> April 2016
- Support by InnovateUK, DECC, EPSRC and DFID

### Scope

- Energy trilemma – affordability, security of supply and emissions reduction
- Innovation must be “relevant to the needs of developing countries”
- Transforming access to energy for poor communities in developing countries (particularly in Sub-Saharan Africa & South Asia)

<https://www.gov.uk/government/publications/funding-competition-energy-catalyst-round-4>

# UK Funding Landscape

## Energy Catalyst

### Technology areas

- Carbon abatement
- Renewable energy (solar thermal, heat pumps, heat storage, geothermal, bio)
- Nuclear Fission
- Hydrogen & Fuel Cells
- Energy networks and System integration (heat networks)
- Demand side technologies
- Enabling technologies and processes

### Funding

- Early stage feasibility <1yr, <£200k, academic or SME led, 50% matched funding
- Mid stage CR&D, <3yrs, <£1.5m, must be industry led, 70% matched funding
- Late stage CR&D, <3yrs, <£10m, must be industry led, 70% matched funding

# UK Funding Landscape

## Energy Game Changer

- £2million budget
- Opened 29<sup>th</sup> March 2016, closes noon 11<sup>th</sup> May 2016
- Feasibility studies - < 12mth, <£100K
- Must be led by non-energy sector SME

### Aim

To solve the challenges of highly regulated energy sectors such as oil and gas, nuclear and energy systems (national grid, utilities)

### Three stage application process

Step 1 – 2 minute video pitch and short written description

Step 2 – Written application form (for invited applicants only)

Step 3 – Panel interview

# UK Funding Landscape

## Energy Game Changer

### Themes

#### **1. Taking inspection to the limit**

Inspection, characterisation and clean up of buildings, vessels and components in aggressive environments (explosive, radioactive, subsea, high temperature)

#### **2. Dealing with data**

Managing big data, integration, analysis and visualisation in real time to aid decision making

#### **3. Engaging in energy**

Minimising the cost of energy without losing comfort, roll out of energy systems in a non invasive way, encouraging user engagement in energy efficiency

# UK Funding Landscape

## DECC

### Heat Strategy – The Future of Heating: Meeting the Challenge 2013

- Described the current situation for heating
  1. Industrial process heat
  2. Heating for buildings – domestic, commercial and industrial
  3. Heat networks
- Identified the barriers
  1. Balancing standards with the need for affordable housing
  2. Undervalued energy efficiency measures
  3. Consumer understanding of energy saving
  4. Cost of low carbon heating

# UK Funding Landscape

## Support to alleviate the barriers

Support for local authorities

Setting up a **Heat Networks Delivery Unit** and development funding stream

Consumer challenges

Supporting the establishment of an industry-led customer **code of conduct** and transposition of the **Energy Efficiency Directive** to improve metering and billing

Capital funding & financial incentives

Examine scope for extra **financial support** for heat networks through the **Renewable Heat Incentive**

Supporting long-term development

Developing **technical standards** and **supporting technical innovation** in design and installation

# European Funding Landscape

## Horizon 2020 EU Work programme 2016 – 2017

- Societal challenge 3 – Secure, clean and efficient energy
  - Improving efficiency of district heating,
  - waste heat recovery from urban facilities,
  - heating and cooling using low grade heat,
  - next generation heating technologies
  
- SME instrument – close to market R&D activities and business support

# How to connect with us

## Our community

<https://connect.innovateuk.org/web/thermal-energy-community>

- LinkedIn Energy at KTN
- Twitter @EGS\_KTN
- Email [jenni.mcdonnell@ktn-uk.org](mailto:jenni.mcdonnell@ktn-uk.org)