

Accessing the UK innovation ecosystem

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Why engage with the wider innovation ecosystem?



Income – funding for collaborative business-led R&D can make a significant contribution to your group's research income and can support PhD and postdoctoral positions

Impact – using your expertise to help solve commercial R&D challenges can provide demonstrable evidence of impact from your research – valuable in the REF exercise.

Investment – businesses can provide support for RCUK capital expenditure funding, i.e. purchasing new equipment to expand your group's capabilities.

Interest – keep up to date with current industry trends and discover interesting research challenges to work on!

UK Innovation Landscape



Innovation – Technology Readiness Levels (TRLs)



	University		Tech transfer		The “valley of death”				
Technology readiness level (TRL)	1	2	3	4	5	6	7	8	9
Activity	Discovery & Research		Innovation					Commercialisation	
TRL description	Basic principles observed and reported	Concept or application formulated	Experimental proof of concept	Concept or process validated in laboratory	System or component validated in relevant environment	System model or demonstrator in relevant environment	System prototyping demonstrator in an operational environment	Actual system completed and qualified test & demo operational environment	Actual system mission-proven in successful mission operations

Innovate UK – the UK's innovation agency

Innovate UK drives **productivity and growth** by supporting businesses to realise the potential of new technologies, develop ideas and **make them a commercial success**.

To **stay competitive as an advanced economy**, we need to do things that others cannot do, or to do things in different and better ways.



Investment of
£2.2bn
since 2007



industry match
funding taking
the total value
of projects above

£3.75bn



Up to
£16bn
in added value
to the economy



up to
£7.30
for every £1
we've invested.



We've funded around
11,000
projects

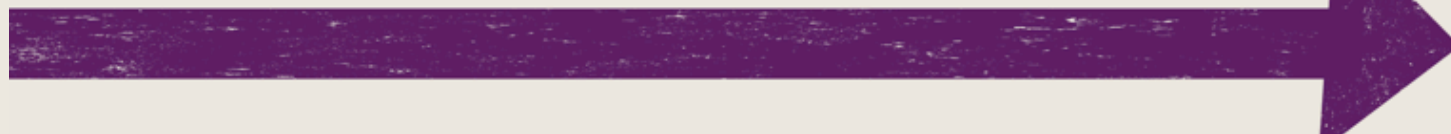


8,000
unique
organisations
involved

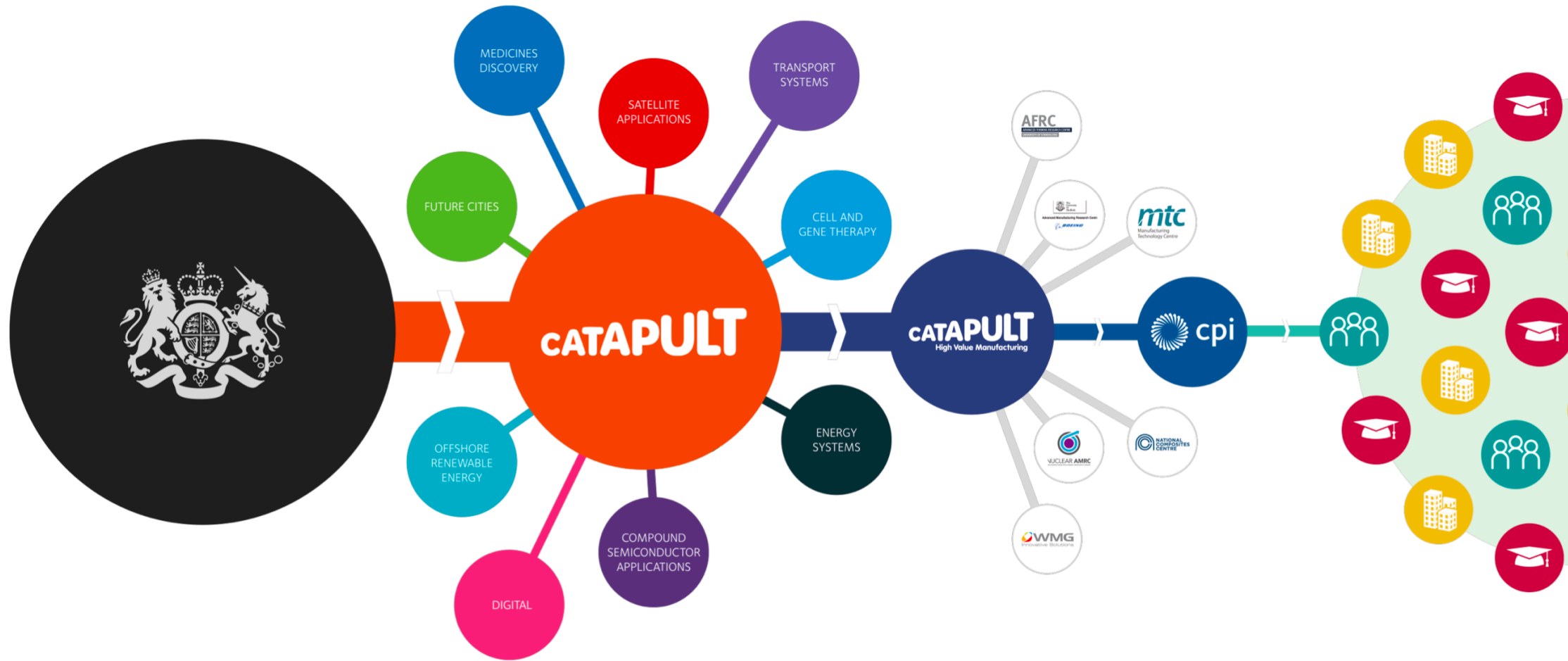


8 jobs for each
organisation
involved

70,000
jobs created in total



Catapult Network



Knowledge Transfer Network (KTN)

Partnering - Access to a network of industry & research partners, help to find *partners for projects*, consortia building, commercial partners

Funding – Help with finding & obtaining funding

Organising events – for knowledge transfer & collaboration

Attending events – to gain knowledge and increase technology awareness

Site visits – helps us to be better aware of what you do

Strategic work – Strategy Reports, Roadmaps, International Expert Missions, Special Interest Groups

Information & News – in one place, up-to-date, recent newsletters



KTN's Objectives

- Increase business led R&D
- Facilitate exploitation of R&D to capture more value from innovation
- Increase collaboration between businesses (B2B) & between businesses and the research base (B2R) for UK benefit
 - ✓ We Connect, Support and Inform
 - ✓ We are Strategic, Impartial and Trusted

We're here to help

KTN in numbers

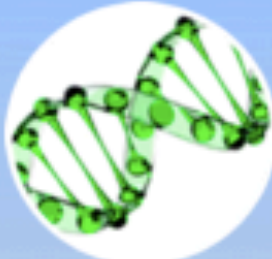
- About 170 sector specific Knowledge Transfer Managers and Advisors
- KTN has over 130,000 contacts across all sectors and technologies
- Organise and run over 400 events per year
- After working with KTN 42 % of the organisations reported a 1-2 year faster outcome
- Extra £100m business investment in R&D unlocked
- 30 % reported delivery of new product, service or process after working with KTN
- Two thirds of companies introduced by KTN go on to collaborate
- KTN helped raise the profile of over 55% of the R&D-active SMEs we work with
- Over 60% of businesses have increased, or expect to increase their investment into R&D and innovation as a direct result working with us

KTN – Industry sectors

Focus is on bringing together groups that would not normally meet



Materials
Chemistry
Environmental
Services



Agri-Food
Biosciences
Medical
Biotechnology
Health



ICT
Electronics,
Sensors &
Phototonics
Defence &
Security
Space



Built
Environment
Transport
Energy



Creative
Industries
Digital Economy
Design

← Emerging Technologies, H2020, International, Access to Finance, Design, Manufacturing, Sustainability →

Innovate UK – ISCF Grand Challenges



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

ISCF Wave 1

£1Bn committed over 4 years



Medicines manufacturing technologies



Batteries for clean and flexible energy storage



Manufacturing and materials of the future

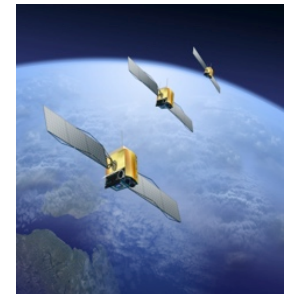
Robots for a safer world



Self-driving vehicles



Satellites and space technology



ISCF Wave 2

£700M invested



Transforming construction



Data to early diagnosis & precision medicine



Transforming food production



Next generation services



Energy revolution



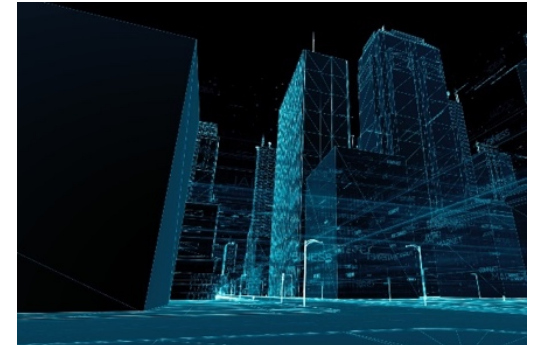
Healthy ageing



Audience of the future



Quantum technology



ISCF Wave 3 Challenges (for final approval)

NB Subject to business case approval and securing match funding from industry

Accelerating detection of disease - up to £79 million

Commercialising quantum technologies - up to £70 million

Digital security by design - up to £70 million

Driving the electric revolution - up to £78 million

Future flight - up to £125 million

Industrial decarbonisation - up to £170 million

Manufacturing made smarter - up to £121 million

Smart sustainable plastic packaging - up to £60 million

Transforming foundation industries challenge - up to £66 million



<https://innovateuk.blog.gov.uk/2019/02/05/industrial-strategy-challenge-fund-wave-3-shortlist/>

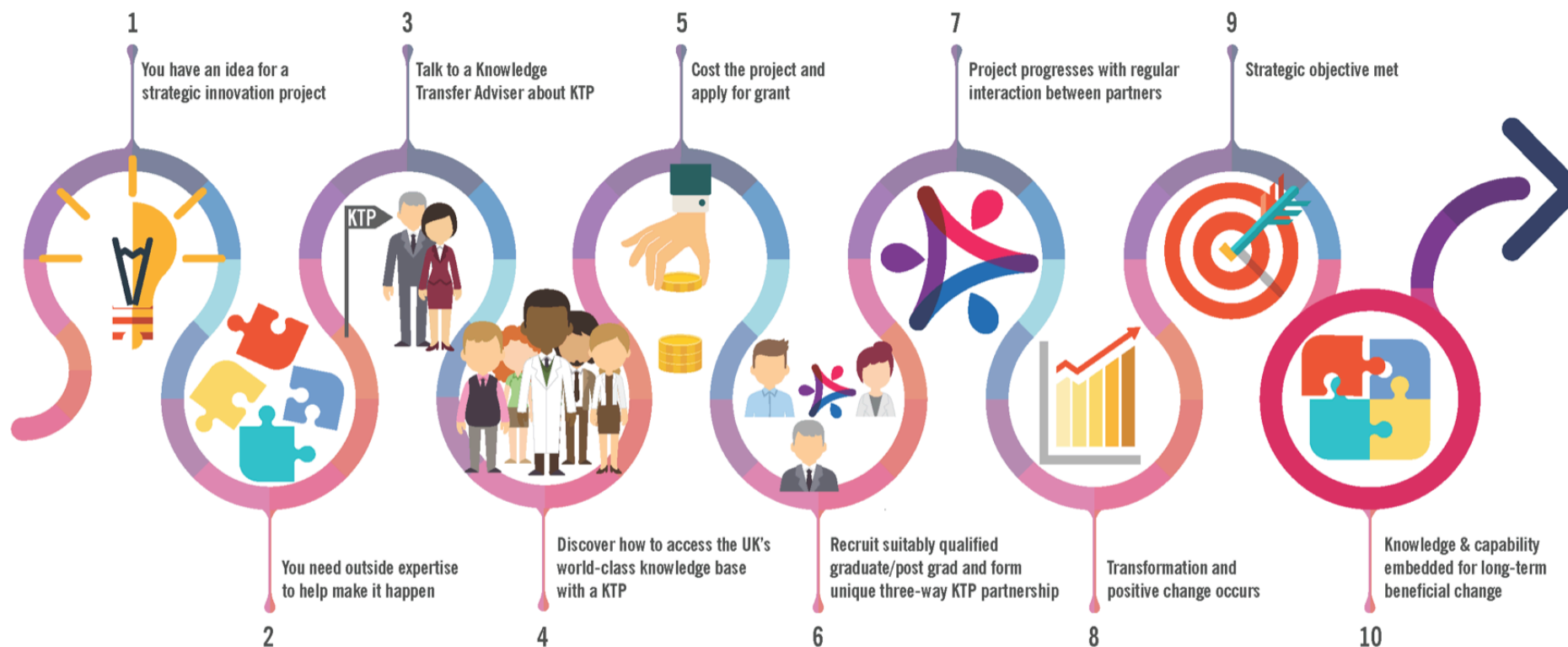
Special Interest Groups (SIGs)

KTN projects that focus KTN activity and accelerate innovation in cross-disciplinary topics of strategic importance. They connect and catalyse people and activity to drive innovation.

- Additive Manufacturing
- Artificial Intelligence in Health
- Compound Semiconductor Applications
- Graphene and other 2D Materials
- Immerse UK
- Materials for Composites
- Quantum Technologies
- Robotics and Artificial Intelligence
- Sustainable Aviation Fuel
- Synthetic Biology
- NEW: Nature Inspired Solutions, Neurotechnology and Geospatial Insights.

Knowledge Transfer Partnerships (KTPs)

KNOWLEDGE TRANSFER PARTNERSHIPS (KTPs) - Step changes to help transform your business



Connect with us!

Sign up to newsletters and browse events on our website – www.ktn-uk.co.uk

Twitter - @KTNUK

KTN-managed LinkedIn groups

Me: matthew.reeves@ktn-uk.org

Also: tap into your University Innovation service, we interact with them often