

KTN update Sustainable Materials

Dr Dana Heldt

Knowledge Transfer Network

KTM – Synthetic Biology

17th December 2018



The Future. Faster.

The Knowledge Transfer Network is Innovate UK's network partner, combining in-depth expertise in all sectors with the ability to cross boundaries.

KTN 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.

Smart packaging

The UK Packaging Industry – A Strategic Opportunity: A Landscape Review and Technology Roadmap Report (June 2018)

- Topics covered & highlighted:
 - Current state of the sector (seize, recent Innovations)
 - Circular economy – waste reduction
 - Capabilities, Trends & Drivers, Threats & Barriers, Opportunities & Recommendations
 - Impact of emerging technologies - 2D materials & nanomaterial, smart technologies, 3D printing, bio-renewables, novel biomaterial and biopolymers,



Sustainable Materials – Plastics Network



UKCPN runs events and activities to bring together the diverse users of plastic products and realise the best outcomes for eliminating plastic waste.



UK CIRCULAR
PLASTICS NETWORK

Sustainable Composites Materials

Report: Industrial biotechnology and bio-based routes to sustainable composite materials (August 2018)

- opportunity to grow the UK's composite product market from £2.3 billion to £12 billion by 2030
- Identified key challenges & developments which will make bio-based composite materials economically competitive with oil-based material
- oxygen content and chirality of various biomass resources, development of cost- effective processes for aromatic compounds, ...

Industrial Biotechnology (IB) and
Bio-based Routes to Sustainable
Composite Materials

August 2018

Dr. R. Rowlands-Jones
Formulation Lead
Knowledge Transfer Network

Innovate UK
Knowledge Transfer Network



Materials for Composites SIG



Purpose

- engage with end user sectors (outside of aerospace and automotive) to understand their applications and requirements
- stimulate innovation in the UK upstream supply chain
- enable companies to develop and supply products to meet the specific needs of the sector
- engage with and complement the existing activities, particularly the CLF and the HVM Catapult

Materials for Composites SIG



Main Deliverables:

- Establish Industrial Advisory Group
- 3 Networking Events or Workshops
- Landscape Map of Chemical Industries
- UK Innovation in the Composites Supply Chain
- Identify priorities for government intervention to support higher risk opportunities for UK industry supply chain in R&D and collaboration

<https://ktn-uk.co.uk/interests/composites>



Funding

Industrial Strategy



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

ISCF timeline



Industrial Strategy
White Paper

UK Research and
Innovation

Budget 2018

Oct-Dec
2017

Wave 1 challenge competitions

Scaling Wave 1 challenges

Announce Wave 2

Wave 2 Bus. Cases

Competitions for Wave 2 challenges

Recruit Wave 1 & 2 Challenge Directors

Design Wave 3

Wave 3 EoI

Wave 3
deep-dives

Wave 3 Bus. Cases

Competitions for
Wave 3 challenges

Recruit Wave 3
Challenge Directors

ISCF - Food scraps turned into environmentally friendly plastic packaging



- £60 million government
- sustainable packaging - new forms of packaging and plastic
- reduction of toxic plastic waste
- smart packaging labels



Funding – KTN support

- dedicated Access to funding team (A2F)
- provide information on Grants and Investments - national & international (IUK, Horizon2020, Eukera...)
- grant writing support

Upcoming events

- 19th June 2019 - Plastics: From cradle to grave and resurrection (Society of Chemical Industry & Royal Society of Chemistry)
- 18th to 20th February 2020 - Advanced Materials Research Exchange & Investor Showcase (MRE2020), London (KTN & Innovate UK)

Contact:

Dana.Heldt@ktn-uk.org

@SynBioDana



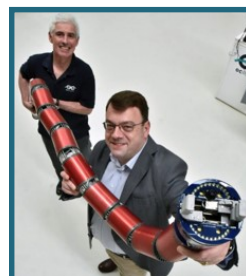
Wave 1 Challenges (c. £1b)



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
(ATI projects)
up to £26m



Autonomous
Vehicles (CCAV
projects)
up to £38m



National
Satellite Test
Facility
up to £99m

Underpinning UKRI investments (Wave 1a) up to £283m

Wave 2 Challenges (up to £729.5m)



Audience of the future (up to £33m)



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



Prospering from the energy revolution (up to £102.5m)



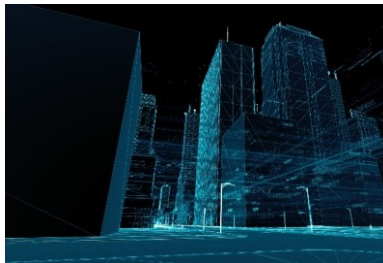
Healthy ageing (up to £98m)



Next generation services (up to £20m)



Quantum technology (up to £20m)



Transforming construction (up to £170m)



Transforming food production (up to £90m)

