



UNIVERSITY OF LEEDS

This is a repository copy of *Future Fashion Factory: Developing an Eco-System to Support Sustainable Change*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/191195/>

Version: Presentation

Conference or Workshop Item:

Almond, K orcid.org/0000-0002-0311-106X and Rainton, S (Accepted: 2022) Future Fashion Factory: Developing an Eco-System to Support Sustainable Change. In: Futurescan 5: Conscious Communities, 07-08 Sep 2022, Leeds, UK. (Unpublished)

This is an author produced version of a conference presentation originally presented at Futurescan 5: Conscious Communities, 7th – 8th September 2022, Leeds, UK

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>



Future Fashion Factory

Developing an Eco-System to Support Sustainable Change

Sue Rainton / Kevin Almond

Programme Manager & Co-I, Future Fashion Factory

The Opportunity

Creative Industries Cluster Programme (CICP):

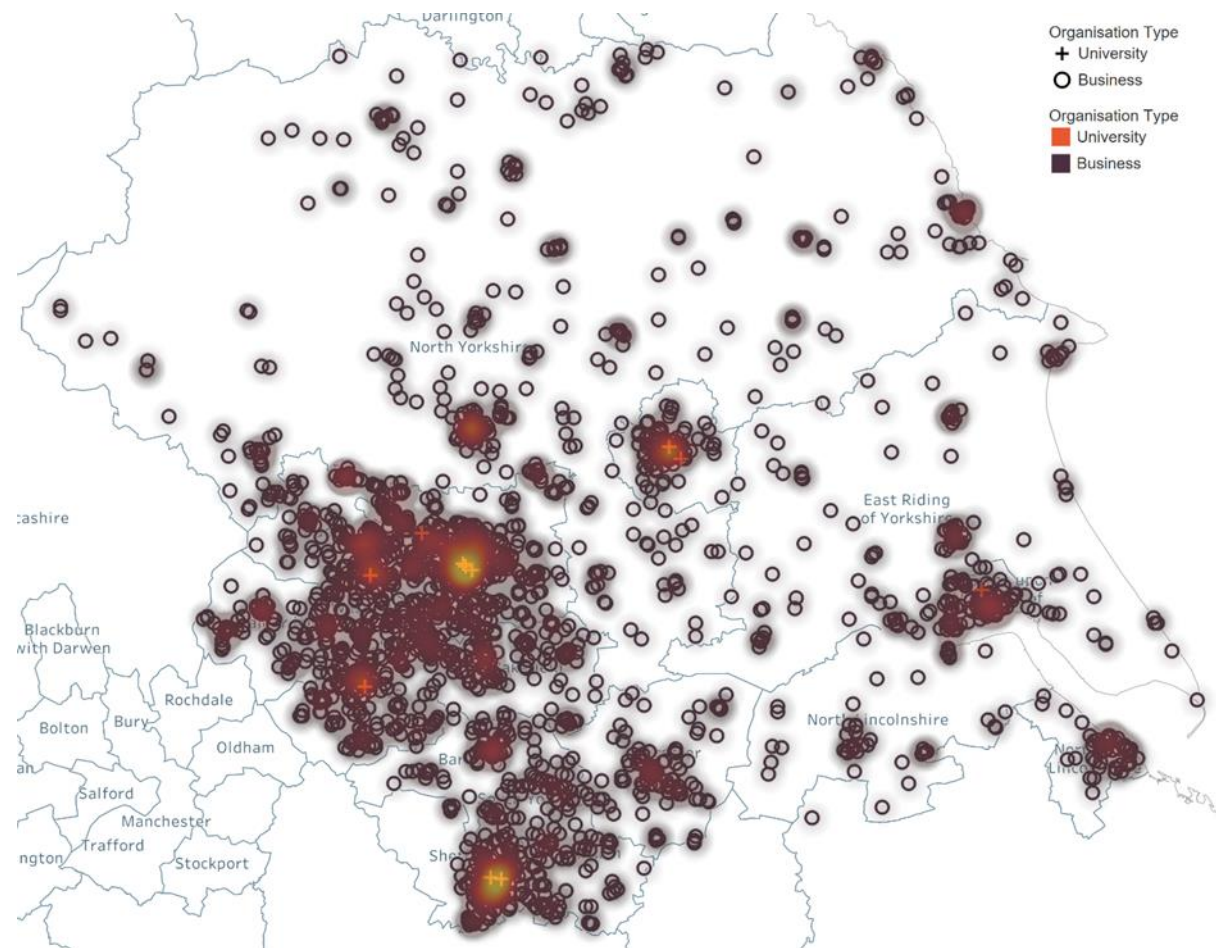
an “*unprecedented*” £80m investment by the Industrial Strategy Challenge Fund, via UKRI / Arts and Humanities Research Council.

The Building Blocks


- Yorkshire-based regional cluster, academic & industrial
- Lead partner with >140 years textile experience
- Good academic connectivity
- Great links to Local Government / LEP
- Strategic Alignment

IDEA MAKES SENSE FOR EVERYONE

- 4,000 fashion and textile businesses
- >100,000 people (+40,000 in textile manufacturing, generating ~£8 Bn in UK revenues)
- Yorkshire's mills supply global luxury brands, exporting up to 90% of total production
- Burberry's UK vertical manufacturing operations located in Leeds City Region
- 1,800 new Ltd companies registered 2017-2019

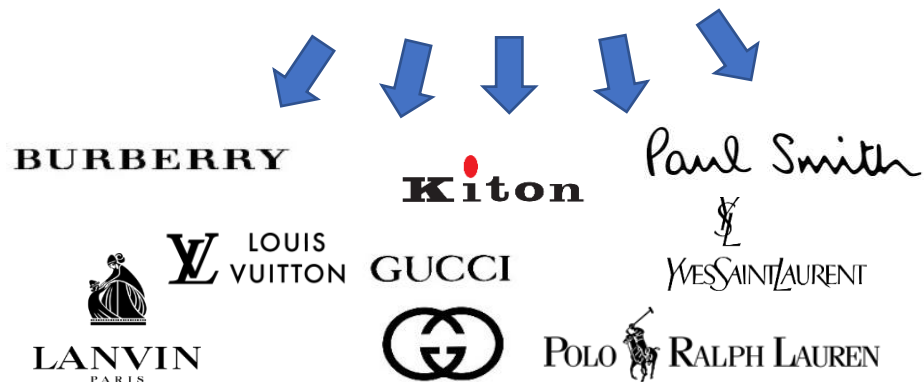


Ref: Perspective Economics, UK

 Future Fashion Factory



The sector's largest UK cluster of high value textile design and manufacturing



UK Fashion industry:
£ 32 Billion UK GDP; ~900,000 people



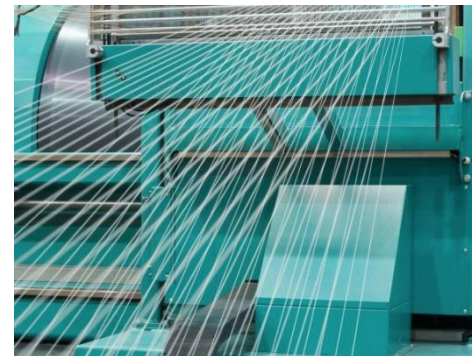
The Process

- Listening more than talking
- Building in industrial ideas for increased connectivity
- Flexible / Responsive

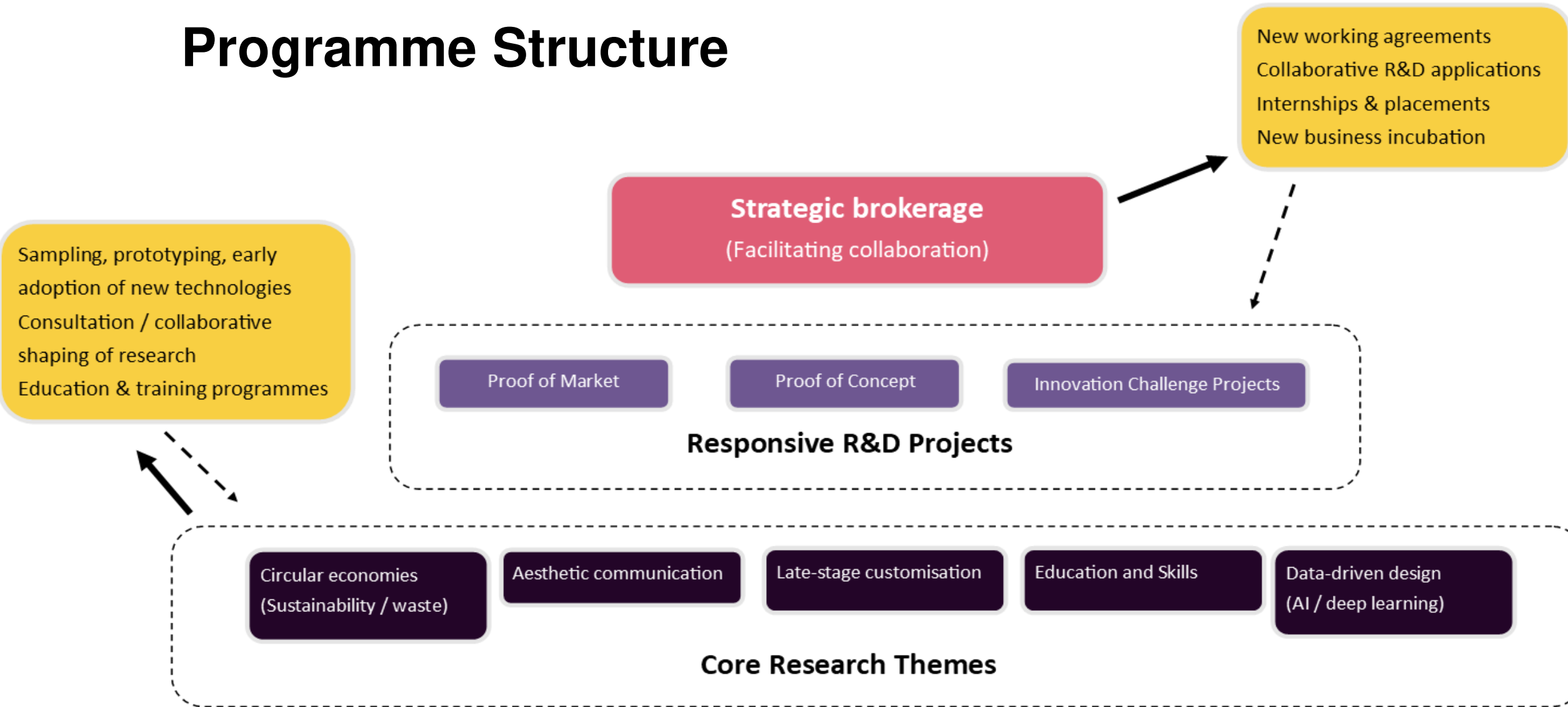


The Outcome

- Funded by the government's Industrial Strategy Fund, one of nine new R&D CIC Partnerships
“To drive economic growth through the development of exciting new products and services, generating a step-change in the creation of new jobs and the supply of high-value skills to fill them”
- End-to-end innovation across design, manufacture and retail
- £ 5.5m awarded by AHRC with an additional
- ~ £3m commitment from industry / Leeds / Huddersfield / RCA
- Started October 2018, 5 year duration



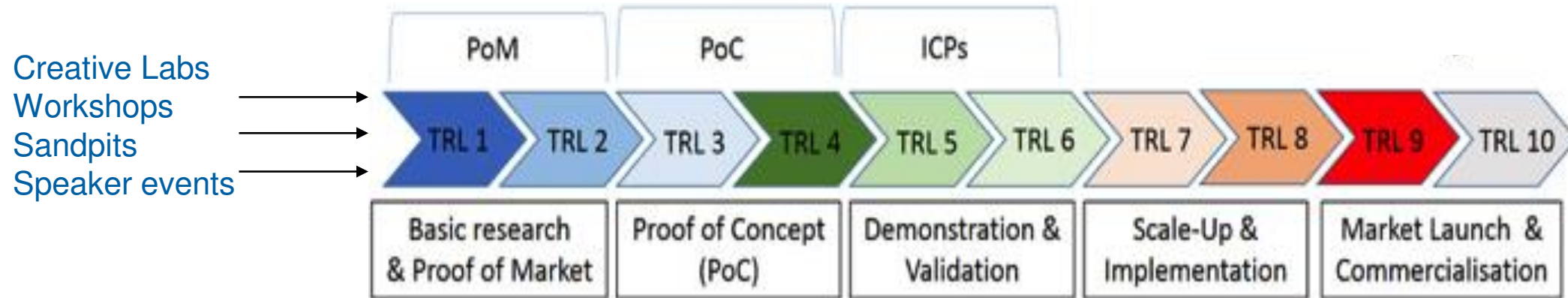
Programme Structure



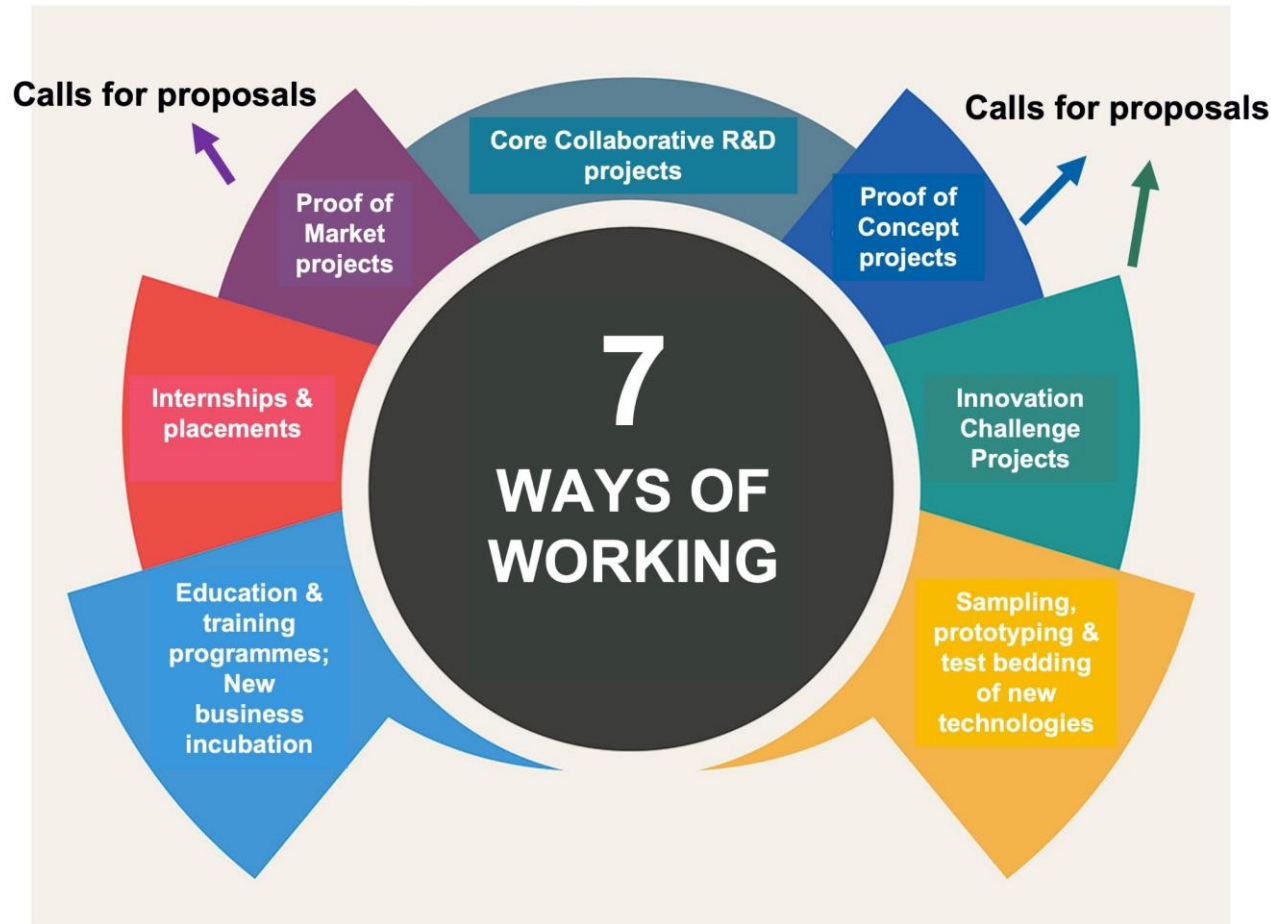
Responsive R&D: Periodic Calls for Proposals

3 funding streams:

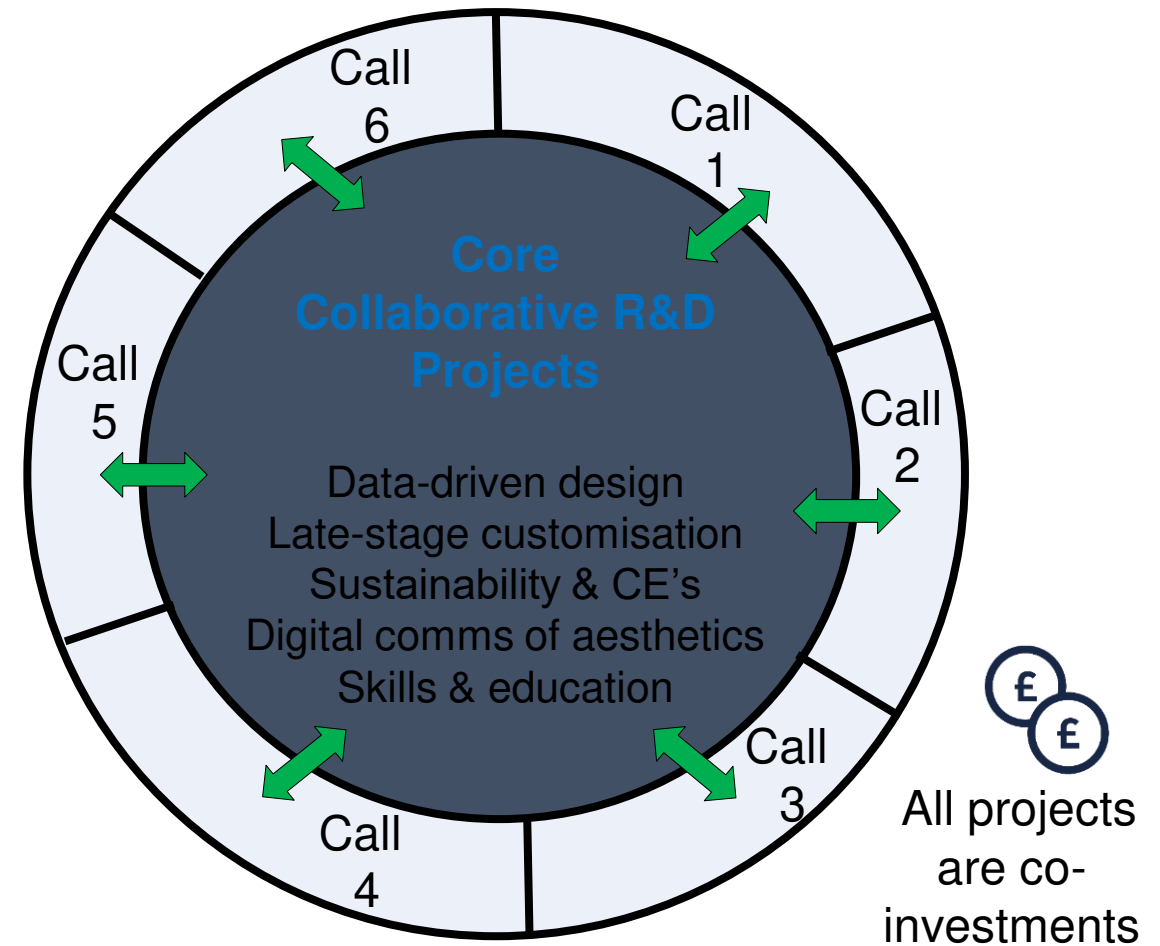
Proof of Market (up to £10K); Proof of Concept (up to £50K) and Innovation Challenge Fund (up to £100K)



- Periodic calls for proposals Years 1 – 4
- Proposals reviewed by a separate committee with an independent industry chair and external members
- In confidence



Aligned Industry-Led, Responsive Research Projects: (n~50); 6 calls



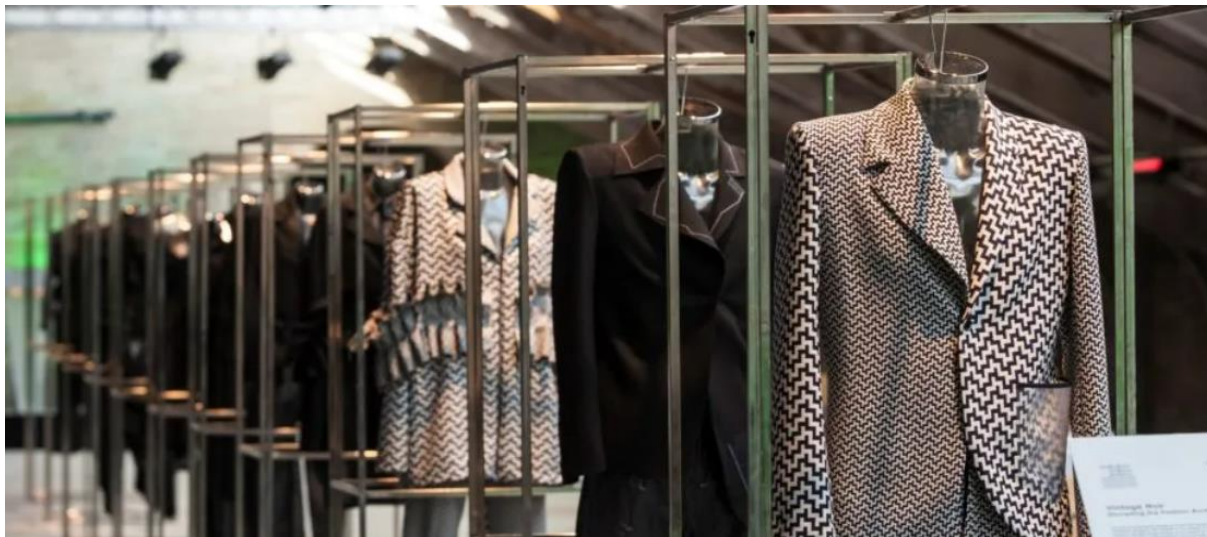
Call 1: AW Hainsworth & Yorkshire Textiles



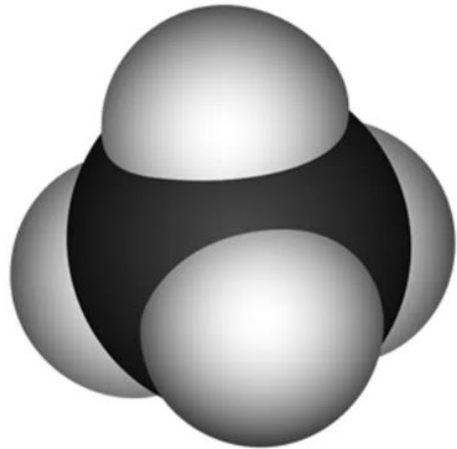
Digitising early designs from Leeds Industrial Museum to produce a 'new heritage' fabric for electronic jacquard manufacture

Hainsworth used the project to trial a new designer-led short production run service, for bespoke fabrics

Stimulated student innovation, the project inspired learning activities



Call 3: Numerion Software Ltd



Numerion Software



- Based on a market-leading garment simulation tool used by major movie studios
- Validating a new cloud-hosted, 3D garment visualisation service, where consumers and designers can engage with different styles on a webpage as part of a AR/VR/MR experience.
- The new platform aims to reduce product lead times, waste from sampling and customer return rates.

Digital Platforms



[Download transcript](#)

Traceability



[Download transcript](#)

Digital Fabrics and Fashion



Local Manufacturing



[Download transcript](#)

Startup Designers



[Download transcript](#)

Connecting Designers and Manufacturers



Circular Economic Models



Regenerative Agriculture



Innovating for Skills and Creativity



R&D Projects funded

Proof of Market: 9
Proof of Concept: 32
Innovation Challenge: 14
55 projects in total

R&D funding, total match

£2,785,378

Leverage: 172%

Network members / industry partners

532 network members
LinkedIn 4,013
Twitter 830
Instagram 896

Industry-led Skills

Apprenticeships: 97
PhD research: 16
New Courses: 10
New Learners: 334
Placements: 10

R&D and strategic project submissions

325 submissions supported
£6.39 million, R&D funds won
£21.1 million, aligned LITAC investment

New licenses / IP sales

Commercial collaborations:
Multiple new technologies & digital tools

New business creates

8 new start-ups – connected to both FFF Core Research Themes and the Responsive R&D Programme.
More in the pipeline!

Match funding: wider industry network

£24.25 million

Match-funding: core partners

£5.96 million

BURBERRY

Christopher RÆBURN

BRORA EST. 1993



Royal College of Art

UNIVERSITY OF LEEDS



University of HUDDERSFIELD

MOON ESTABLISHED 1837

camira

UNMADE
assyst
bullmer



COOPERATIVE INNOVATIONS

NEW LOOK

MISSGUIDED

TCoE TEXTILE CENTRE OF EXCELLENCE

W. T. Johnson & Sons THE TEXTILE FINISHERS

TWELVE OAKS SOFTWARE

IBM

GIEVES & HAWKES No.1 SAVILE ROW LONDON

ukft ukft.org

BRITISH FASHION COUNCIL

AW HAINSWORTH QUALITY IN TEXTILES SINCE 1783

wools OF NEW ZEALAND

system 88 digital transformation services

DOROTHY PERKINS

wallis

northern clothing & textile network

NONWOVENS NETWORK

Joseph H. Clissold CLOTHMAKERS SINCE 1910

G&J

YORKSHIRE TEXTILES

TOPMAN

BURTON MENSWEAR LONDON

Make it British

design network north

Laxtons specialist yarns spun in Yorkshire

ANTICH & SONS LIMITED

BOWER ROEBUCK

Miss Selfridge

LEP LEEDS CITY REGION ENTERPRISE PARTNERSHIP

Leeds CITY COUNCIL

CLOTH DORMEUIL

EASTMAN STAPLES LONDON HUDDERSFIELD GLASGOW BELFAST POLAND

Johnstons of Elgin SINCE 1797

Joshua Ellis 1767

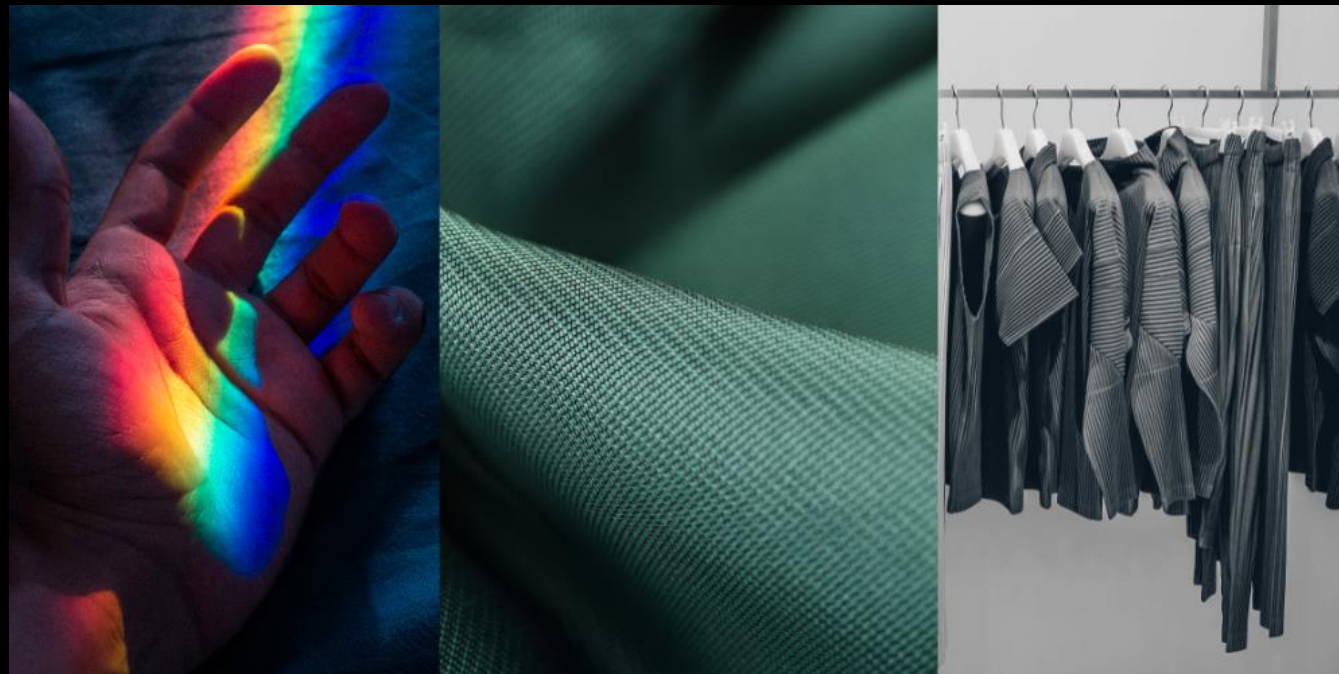


UNIVERSITY OF LEEDS



LITAC

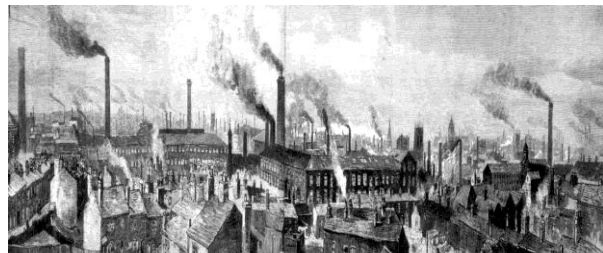
Leeds Institute of Textiles and Colour



Built on ~150 Years of Textile Research

1874

Yorkshire College of Science:
Colour & Textiles, Leeds



1904-

Department of Textile Industries and
the University of Leeds:



William Bragg Nobel Prize
X-ray spectroscopy

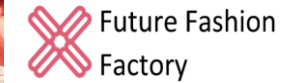
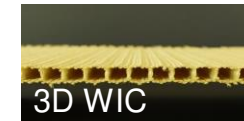


William Astbury, FRS
First XRD image of DNA
(discovered in wool)



John Speakman
Produced the first
alginate fibres

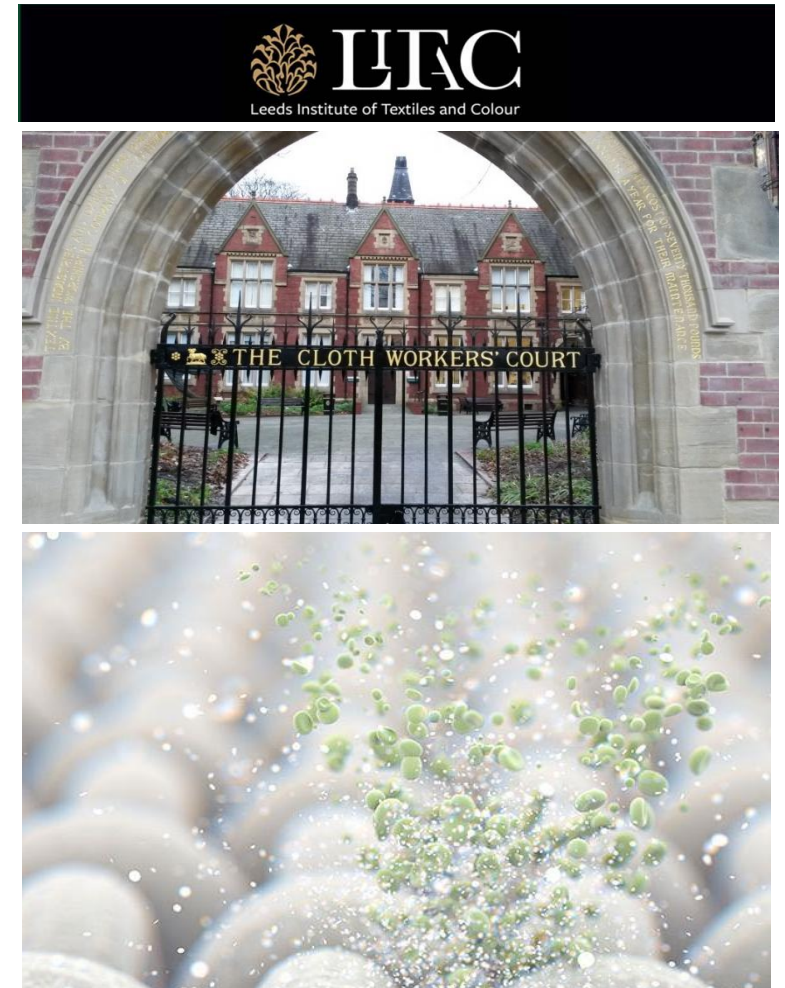
2021-



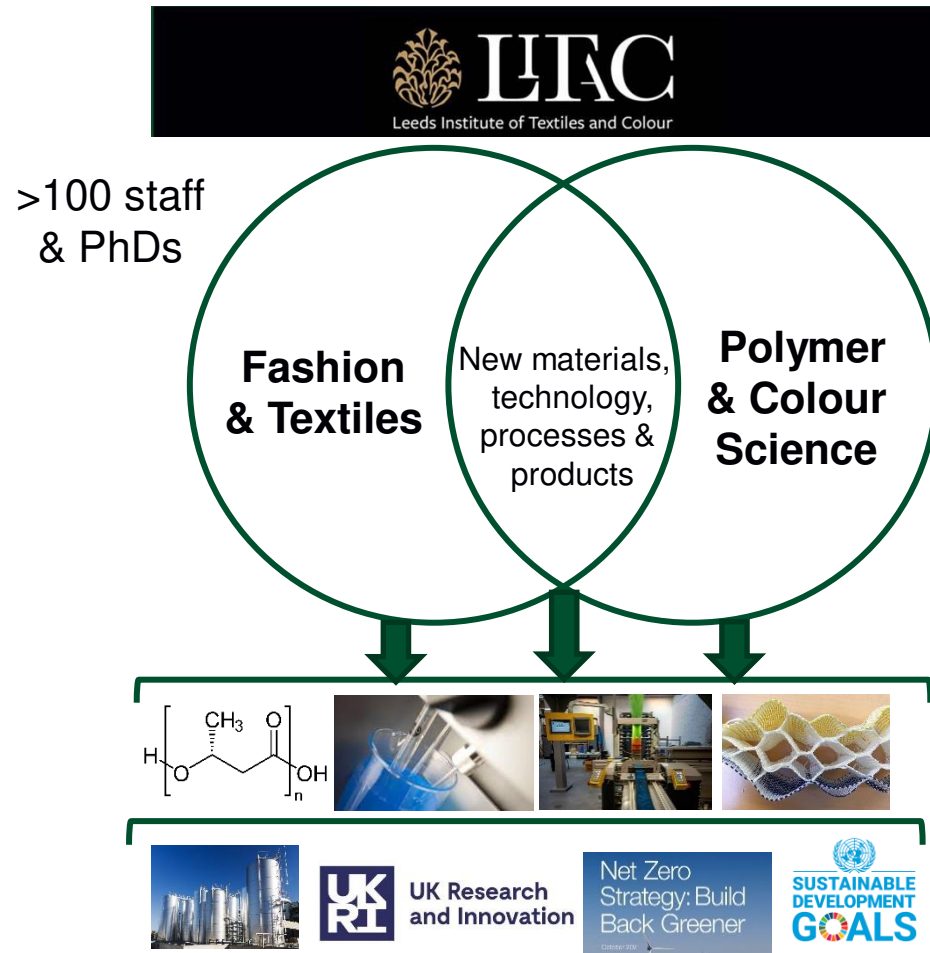
>500 industry
partners
(PLCs, SMEs,
start-ups)

Objectives

- New multi-disciplinary, UoL research Institute.
- £21.1M co-investment (Clothworkers Company and UoL).
- Global leadership in textile, fashion and colour R&D, responding to clearly defined unmet needs.
- National and international collaboration, with industry and other academic institutions, addressing key challenges.
- Interdisciplinary research collaboration (across art & design, science, engineering led by one UoL Institute).



Core research expertise



•**Textiles:** design, processes, smart manufacturing, fibre-fabric production, structure and properties, recycling and reuse tech.

•**Fashion:** design, technology, retail, marketing and commerce, digital systems, sustainable development.

•**Polymer science:** e.g., renewable materials, multifunctional polymers, biomaterials, polymer recycling, surface coatings and printed electronics.

•**Colour science:** e.g., green chemistry, novel colorants, organic dyes, functional finishes and inks, imaging, digital tools.



3D WIC



CCTMIH



Informing Student Education

- Institute research that is fully aligned with undergraduate and MA/MSc teaching.
- 3 new research-led BA programmes launched – focused on sustainability and innovation.
- Theoretical, practical and industry grounding in textiles, fashion and colour science, with detailed knowledge of real-world industry operations and challenges.
- High quality industry placements and long-term business relationships.





UNIVERSITY OF LEEDS



LITAC

Leeds Institute of Textiles and Colour

Thank you