

University of Birmingham Business Club

Breakfast Briefing

**‘Know you Business, grow
your business’**

Thursday 08 February 2018

Introducing innovation loans

Innovation funding for ambitious businesses

Scott O'Brien, Head of Lending Ops & Risk

Cat Dillaway, Credit Specialist

University of Birmingham

8 February 2018

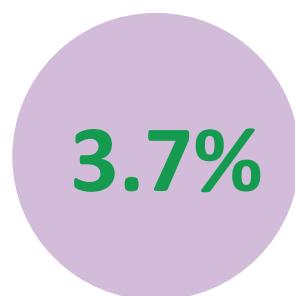
Innovate UK

Innovation Loans

Affordable, flexible and patient



Single
Applicant
SMEs only



Low interest
rate



Flexible & patient
Up to 10 years



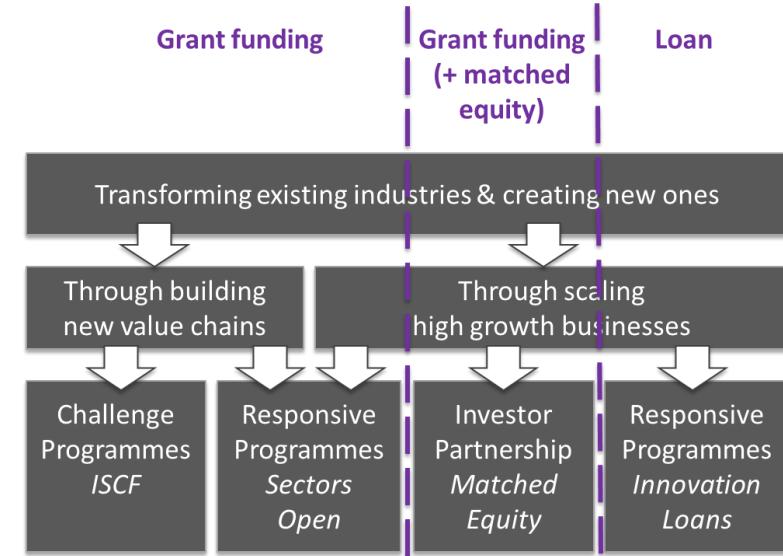
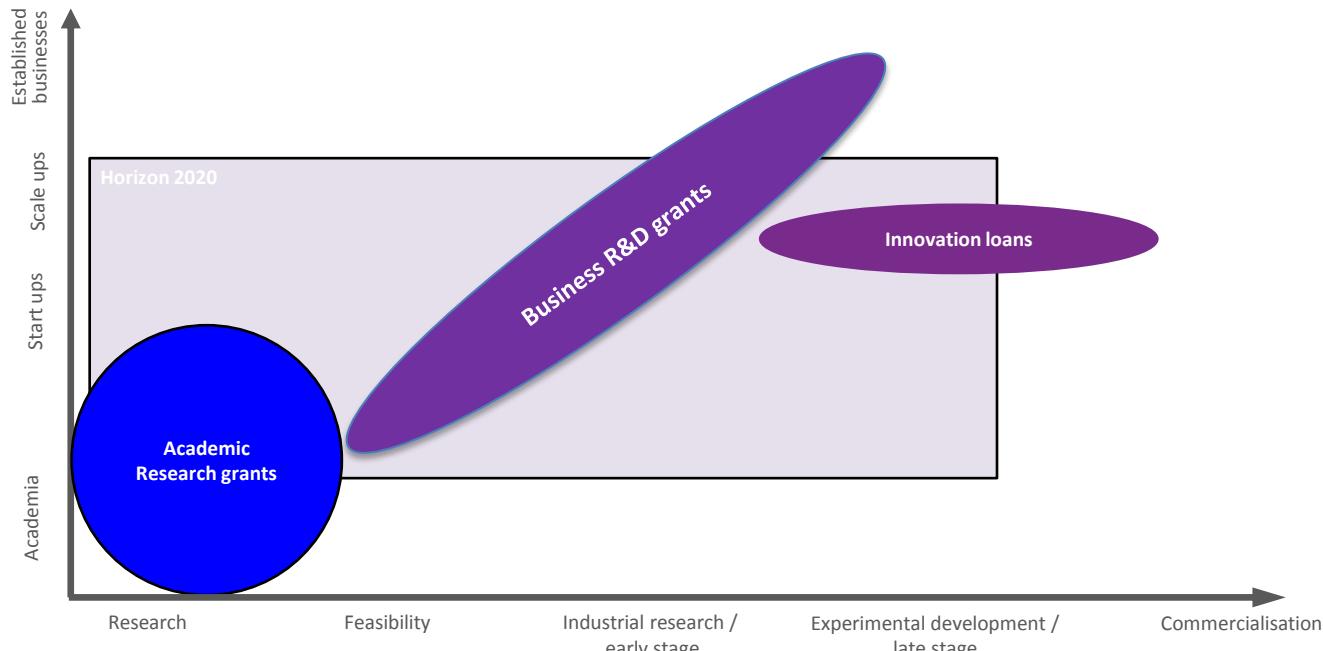
Up to 100% of
project costs
Later stage R&D



Loan size
£100k to £1m

Innovation Loans: Complementary to Grants

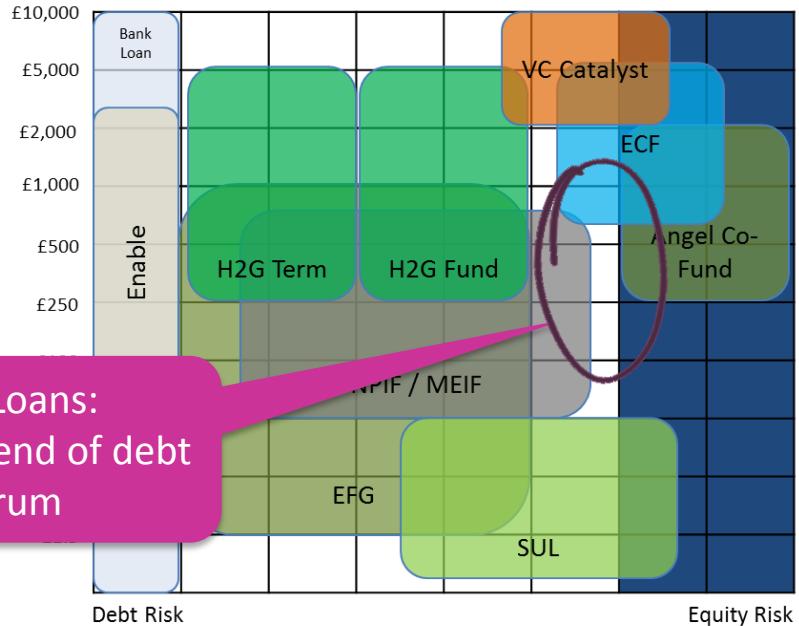
Innovation Loans sit as part of the continuum from research through to commercialisation – they are part of a new offer to innovative companies, not a replacement for existing activity.



Versus Innovate UK's grant programmes, Innovation Loans will support opportunities that are:

- Closer to **market**
- About the **business** as well as the **project**
- Ready to **scale up**

Innovation Loans: Complementary to British Business Bank schemes



Versus BBB's programmes, Innovation Loans will focus on:

- Highly innovative R&D projects
- Suitable, credit constrained SMEs

| BBB Growth Finance Interventions | By contrast, Innovation Loans are... |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Help to Grow | Focused on innovation Smaller average deal size Riskier Propositions Longer Terms More patient |
| Enterprise Finance Guarantee | Focused on innovation More growth focused Higher average deal size Riskier propositions Longer terms More bespoke |
| NPIF/MEIF (Debt) | Focused on innovation Higher average deal size UK-wide Riskier propositions Longer terms |
| Start-Up Loans | Focused on innovation Later stage Bigger loans Longer terms More bespoke |

Innovation loans summary:

For businesses (SME):

- Innovative
- Growth oriented
- “Scaling up” not “starting up”
- Credit constrained
- Later stage R&D project (experimental development) with clear route to commercial success
- Risky project / company

For projects:

- Loan structured for project and commercial success
 - Availability period (up to 3 years)
 - Extension period (up to 2 years)
 - Repayment period (up to 5 years)
- £100k to £1m for eligible project costs
- Low interest rate (3.7%)
- Reasonable collateral
- Appropriate covenants

Innovation Loans Application

Part A: Innovation Assessment (the project)

- Competition – only highest quality proposals supported
- Technical and commercial assessment – 5 external assessors
- Scope
 - match sector / focus / challenge
 - ‘experimental development’, later stage R&D leading to commercialisation
- 10 questions and project finances
- We look for:
 - Highly innovative
 - Strong market potential
 - Solid project delivery
 - Clear route to commercial success
 - Needing public funding

Part B: Credit evaluation (the business)

- Eligibility
 - UK based SME (single company only)
 - Not ‘in financial difficulty’
- 6 questions, business plan and business financials
- We look for:
 - Appropriate borrowing proposal for eligible project costs
 - Strong management team
 - Clear route to commercial success
- Suitability
 - Can afford to meet interest and principal payments when due
 - Can demonstrate a need for public funding
 - Balance of risk across our portfolio

When will Innovation Loans happen?

- £50m pilot programme
- 5 competitions over 2 years
- First competition:
 - Infrastructure Systems 'First of a Kind Demonstrators'
 - Closed 17th January 2018
 - Drawdowns from April 2018
- Second competition:
 - Manufacturing & Materials 'Manufacturing Readiness'
 - Opens late February 2018
- Further competitions:
 - Open scope
 - April / July / September 2018



Supporting UK innovative
businesses today in
developing the industries
of tomorrow

Innovate UK

APPENDIX

What will Innovation Loans be?

| Innovation loans ARE.. | Innovation loans ARE NOT.. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complementary to grants | A replacement for grants |
| A new later stage R&D project | For match funding a grant |
| A Pilot programme (£50m over 2 years) | Core competitions |
| Repayable | Free money, contingent or success based |
| On beneficial terms (State Aid) <ul style="list-style-type: none">- Low interest rate (3.7%)- Interest-only period (up to 3 yr project / up to 2 yr to get to market)- Repayment period (up to 5 yr) | Typical commercial terms <ul style="list-style-type: none">- Limited availability- High rates Overdrafts or revolving facilities |
| 'Reasonably' collateralised | Unsecured (or PGs) |
| Available to single SMEs only | Available to sole traders, large companies, universities, collaborative consortia |
| Competitive, for the most innovative projects | Always open, for any purpose, for the 'easy stuff' |
| For suitable borrowers (scale ups) | For borrowers who can't afford it (start ups, who need equity) |
| For SMEs needing public support | For those who can / should borrow commercially |

Project Costs

| Eligible costs include.. | Costs that are typically ineligible.. |
|-------------------------------------------------|-------------------------------------------|
| Labour | Project audit, legal, accountancy |
| Overheads | Recoverable input VAT |
| Materials usage | Interest (including HP interest) |
| Capital (relating to usage in the project only) | Advertising |
| Sub-contract costs | Marketing |
| Travel & Subsistence | Entertaining & hospitality |
| Other (directly related to the project) | On-going production |
| | Profits in subsidiary sub-contractors etc |
| | Bonuses etc |

- Costs must relate directly to the project
- Guidance and instructions in the Innovate UK application process
- Consider definition of “the project”
- Capital equipment can be funded for use in the project only, so consider:
 - equipment used for multiple purposes
 - depreciable life of equipment

“Experimental development” means...

- Acquiring, combining, shaping and using existing scientific, technological, business and other relevant knowledge and skills with the aim of developing new or improved products, processes or services.
This may also include, for example, activities aiming at the conceptual definition, planning and documentation of new products, processes or services;
- May comprise prototyping, demonstrating, piloting, testing and validation of new or improved products, processes or services in environments representative of real life operating conditions where the primary objective is to make further technical improvements on products, processes or services that are not substantially set.
This may include the development of a commercially usable prototype or pilot which is necessarily the final commercial product and which is too expensive to produce for it to be used only for demonstration and validation purposes.
- Does not include routine or periodic changes made to existing products, production lines, manufacturing processes, services and other operations in progress, even if those changes may represent improvements

Any questions?

Dr Karl Dearn
Reader in Mechanical Engineering



Dr Karl Dearn

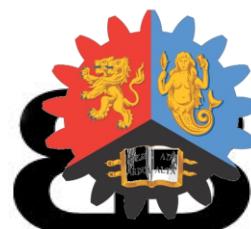
Reader in Mechanical Engineering
School of Engineering,
Department of Mechanical Engineering

[@Dr_KD_Dearn](#)

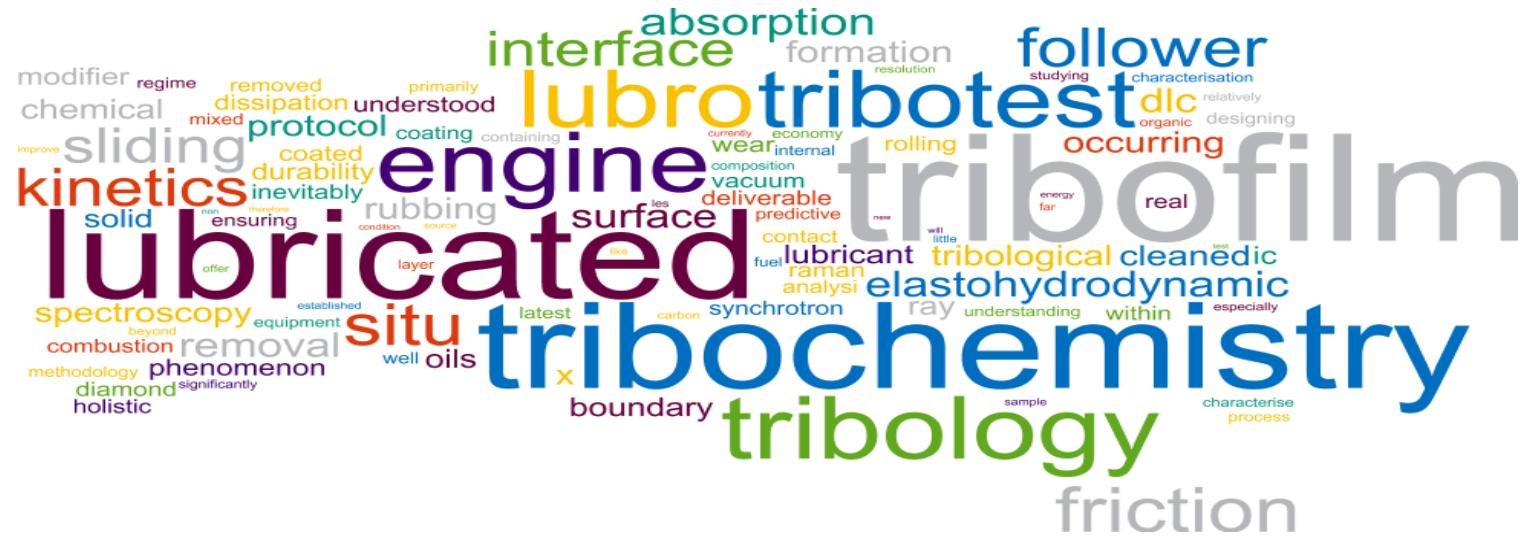
[Linkedin](#)

A snap shot of academic engagement:

From ball valves
to fallopian
tubes



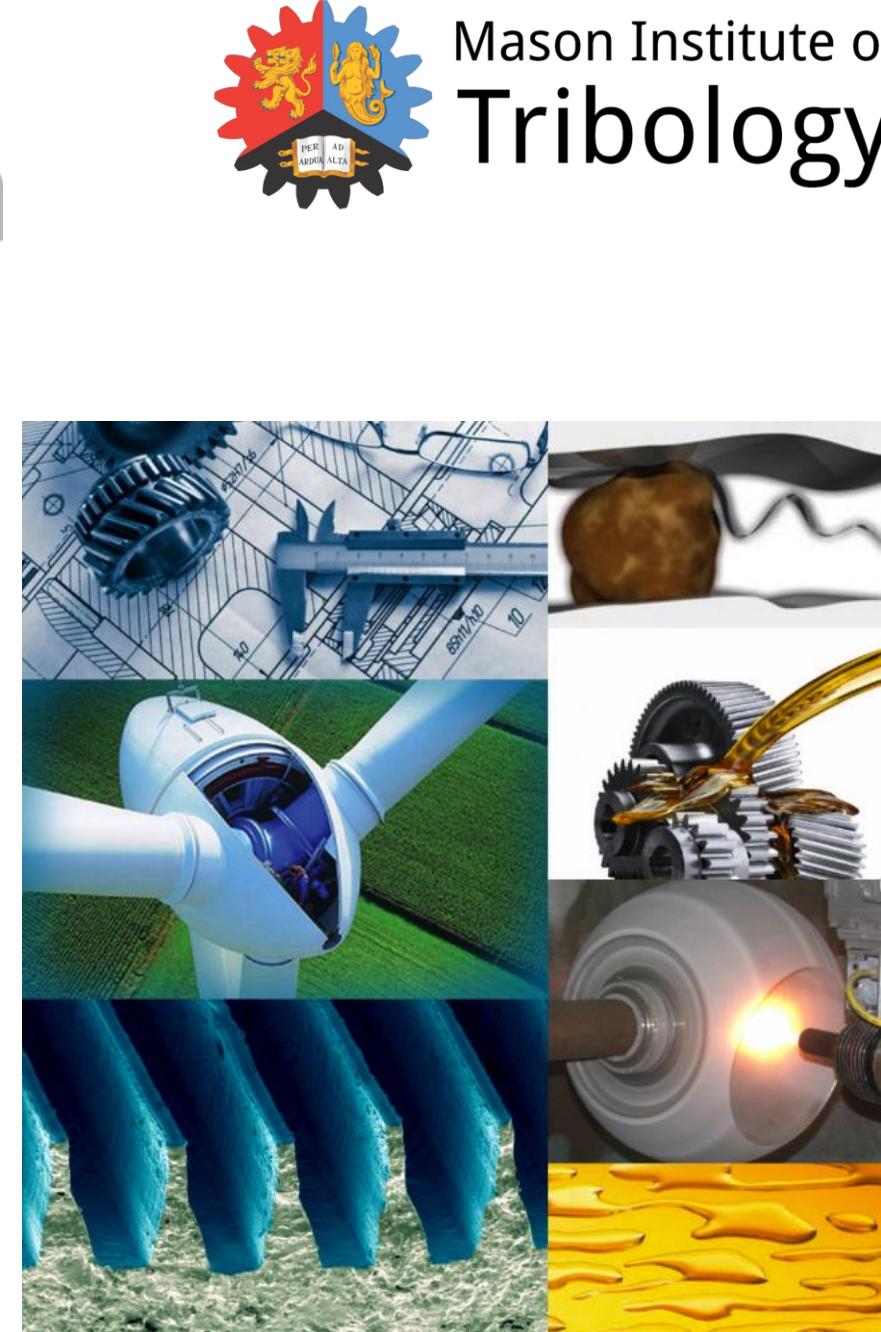
Mason Institute of
Tribology
Birmingham

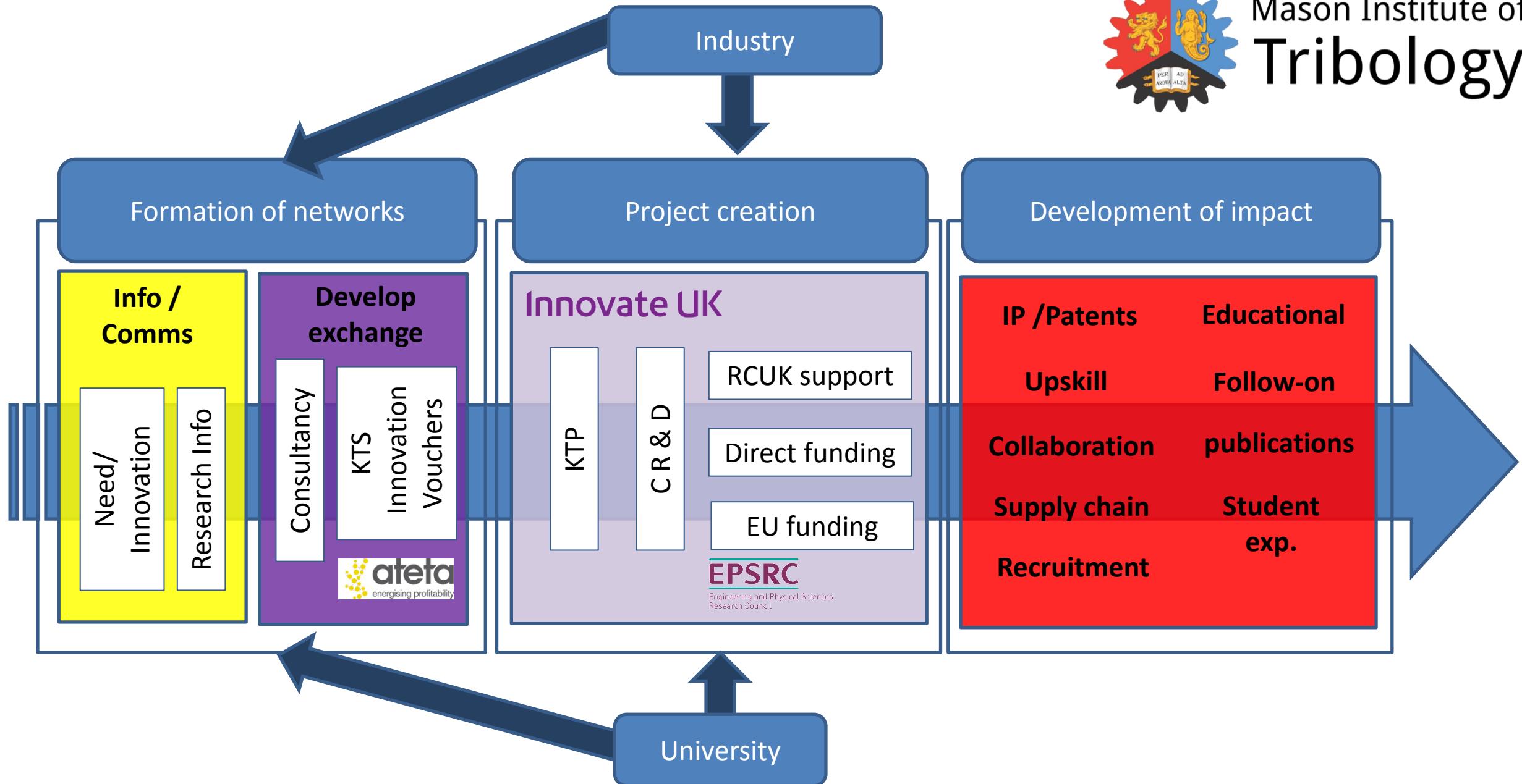


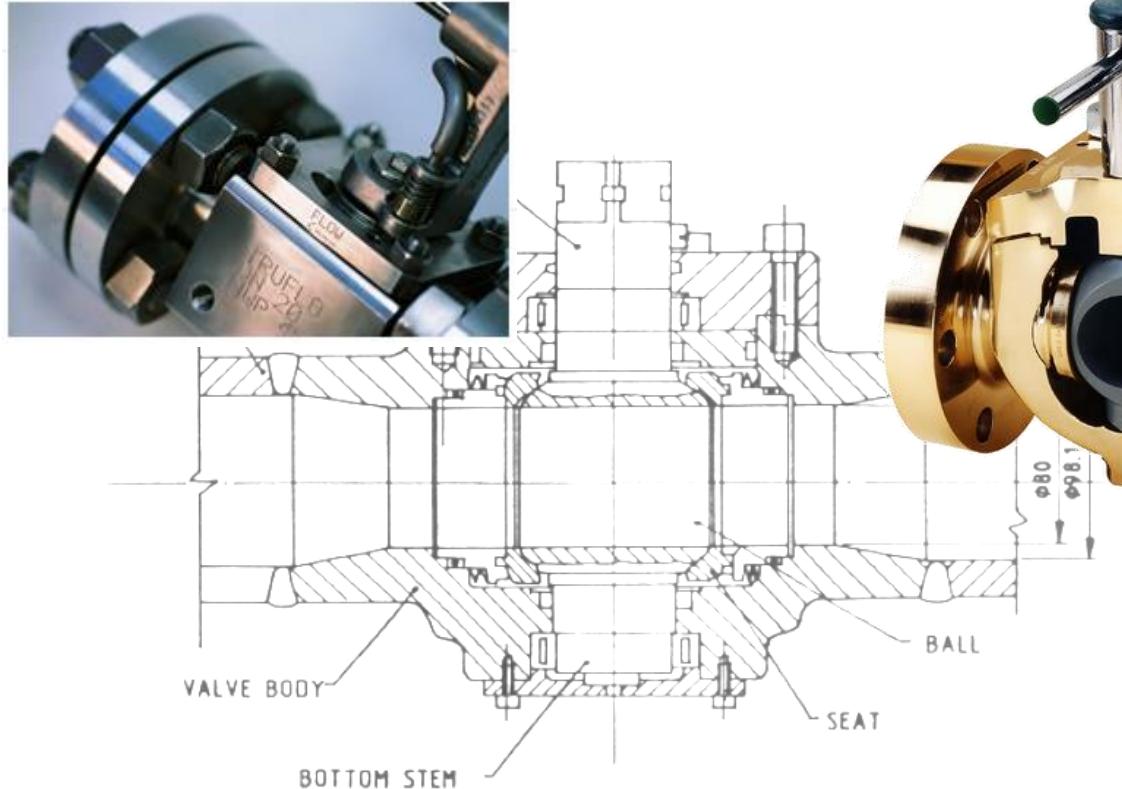
My research ...

Mechanical design methodologies and tribology, this means:

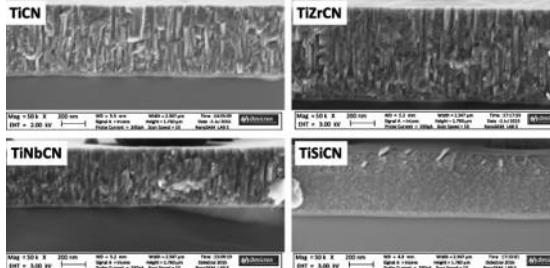
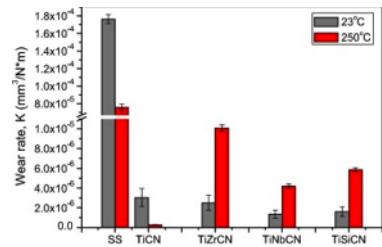
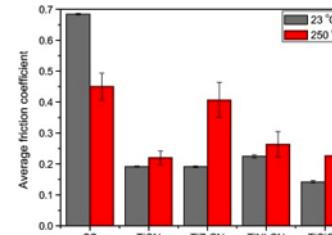
- I like making mechanical components and devices achieve higher levels of efficiency and performance
- Developing of design methodologies founded in fundamental principles of mechanics
- Developing applying tribological methods and techniques based on experience in materials science and mathematical tools
- In these areas:
energy, materials, manufacturing, transportation and healthcare engineering







Mason Institute of
Tribology



 IMI TRUFLO MARINE

 TECH-NI-PLANT

 BABEŞ-BOLYAI
UNIVERSITY

 INOC
2000

Knowledge
Transfer
Partnerships

Innovate UK
 EPSRC

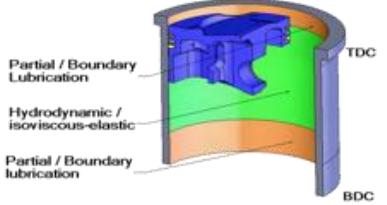
 Erasmus+



Dearman Engine and Auxiliary systems

Innovate UK

Efficiency improvements



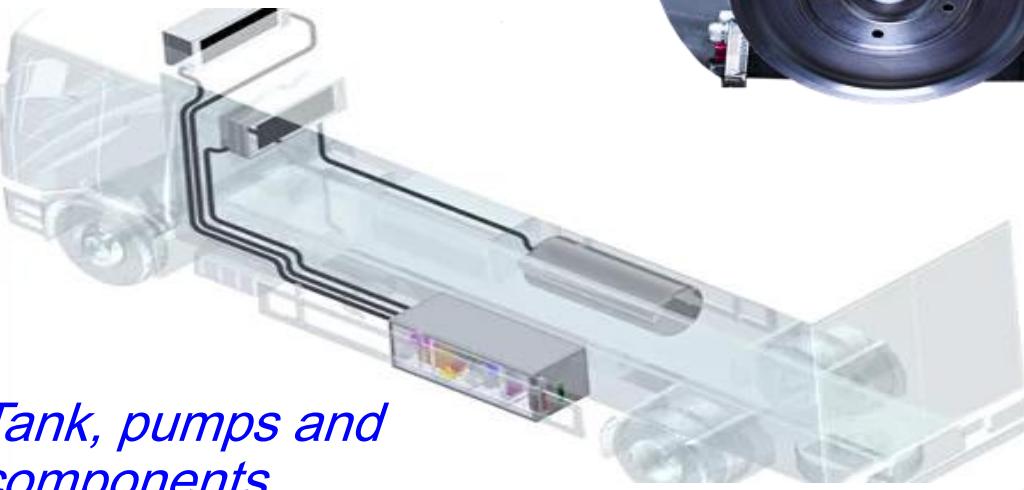
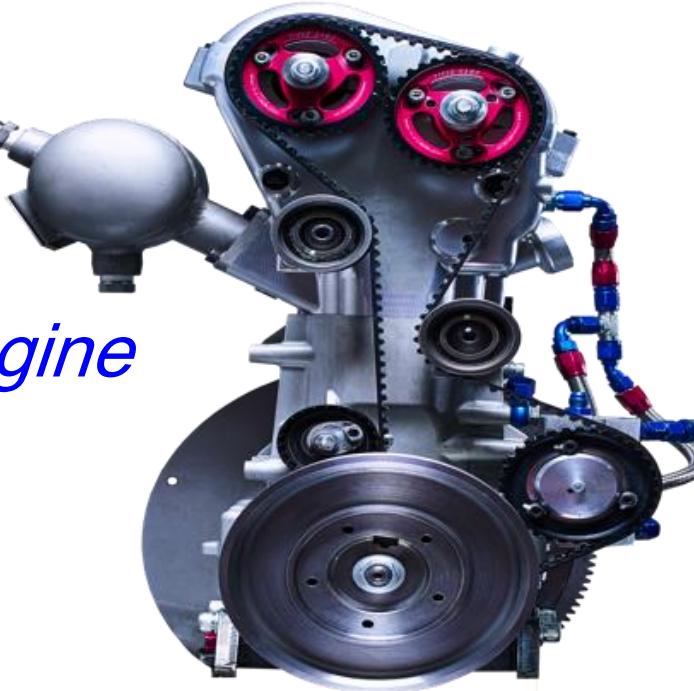
Tribology

- Material selection
- Friction/ wear
- Lubrication
- Components

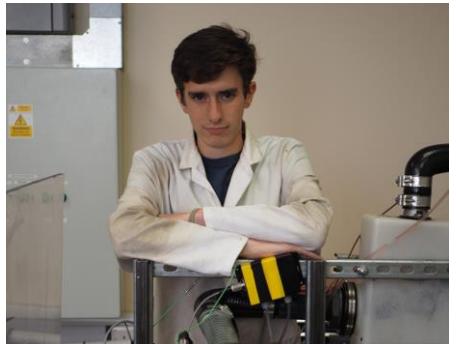


Department of
BioTechnology,
Government
of India
Satyameva Jayate
Newton-Bhabha
Fund

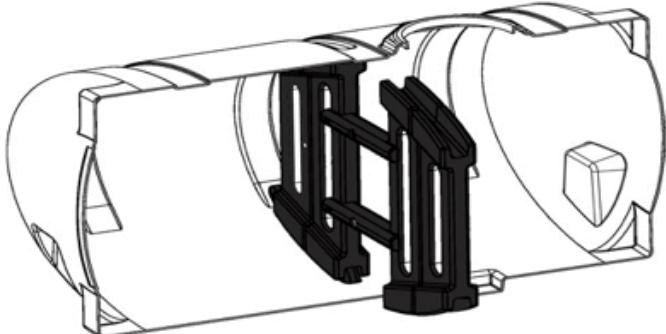
On-engine



*Tank, pumps and
components*



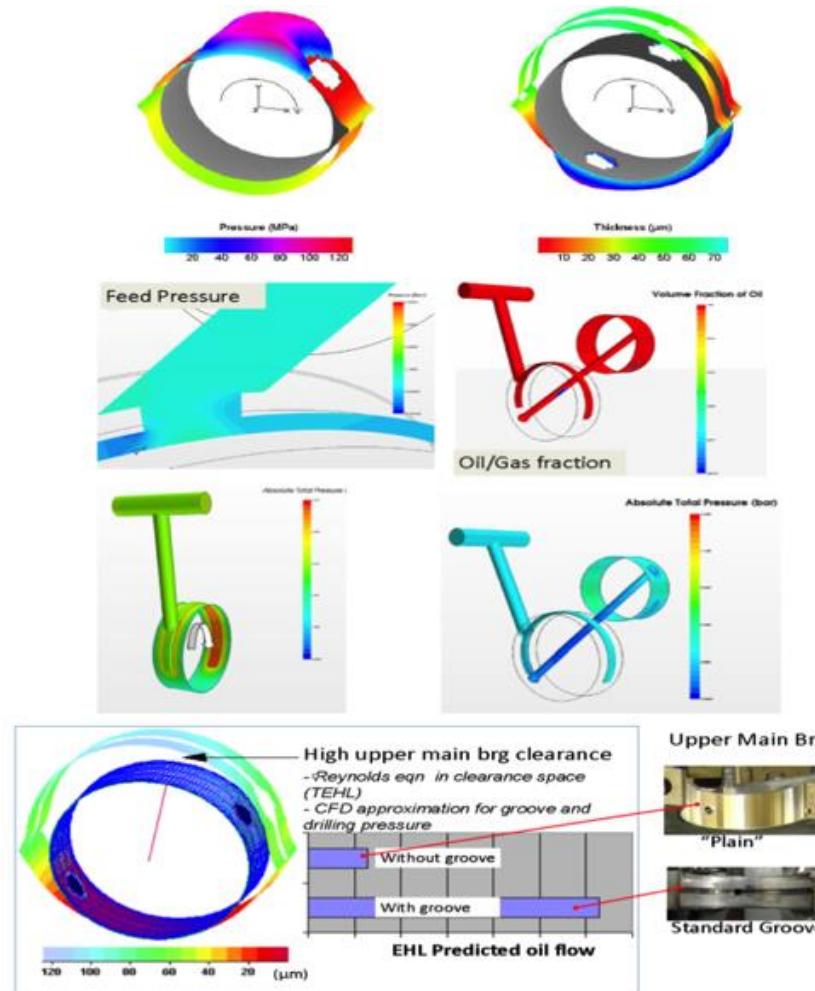
UNIVERSITY OF
BIRMINGHAM
EPSRC National
Productivity Investment
Fund studentships



 Mason Institute of
Tribology

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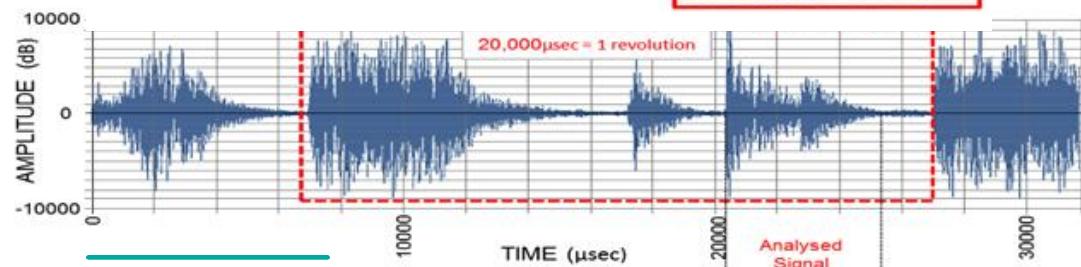
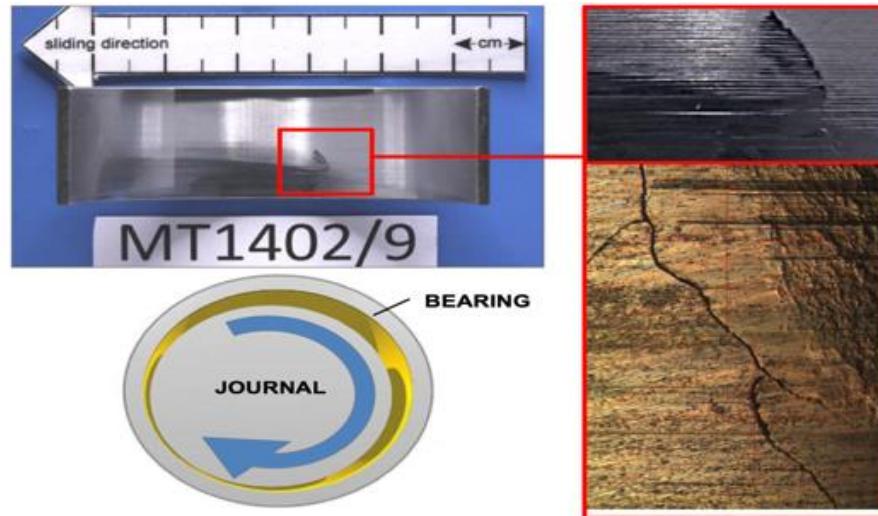
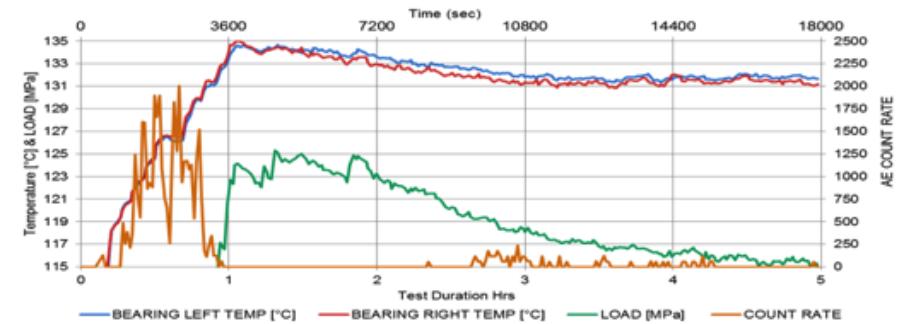
Minimum Oil Flow Models in Bearings



U Knowledge Transfer
Seconds **B**

MAHLE

Condition monitoring - Seizure



EPSRC

Engineering and Physical Sciences
Research Council

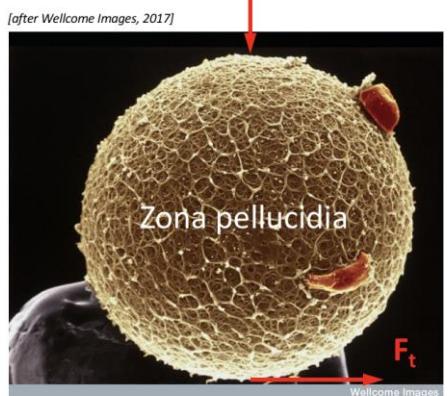
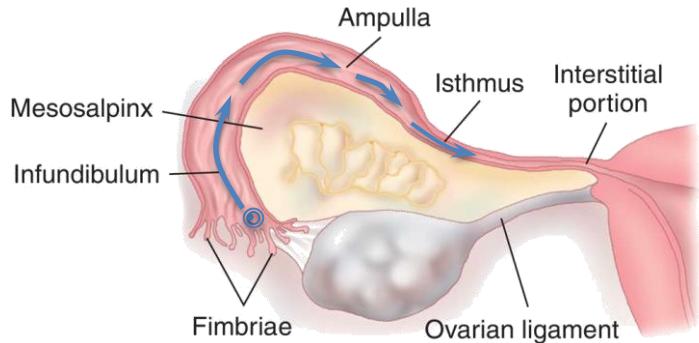


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Tribology

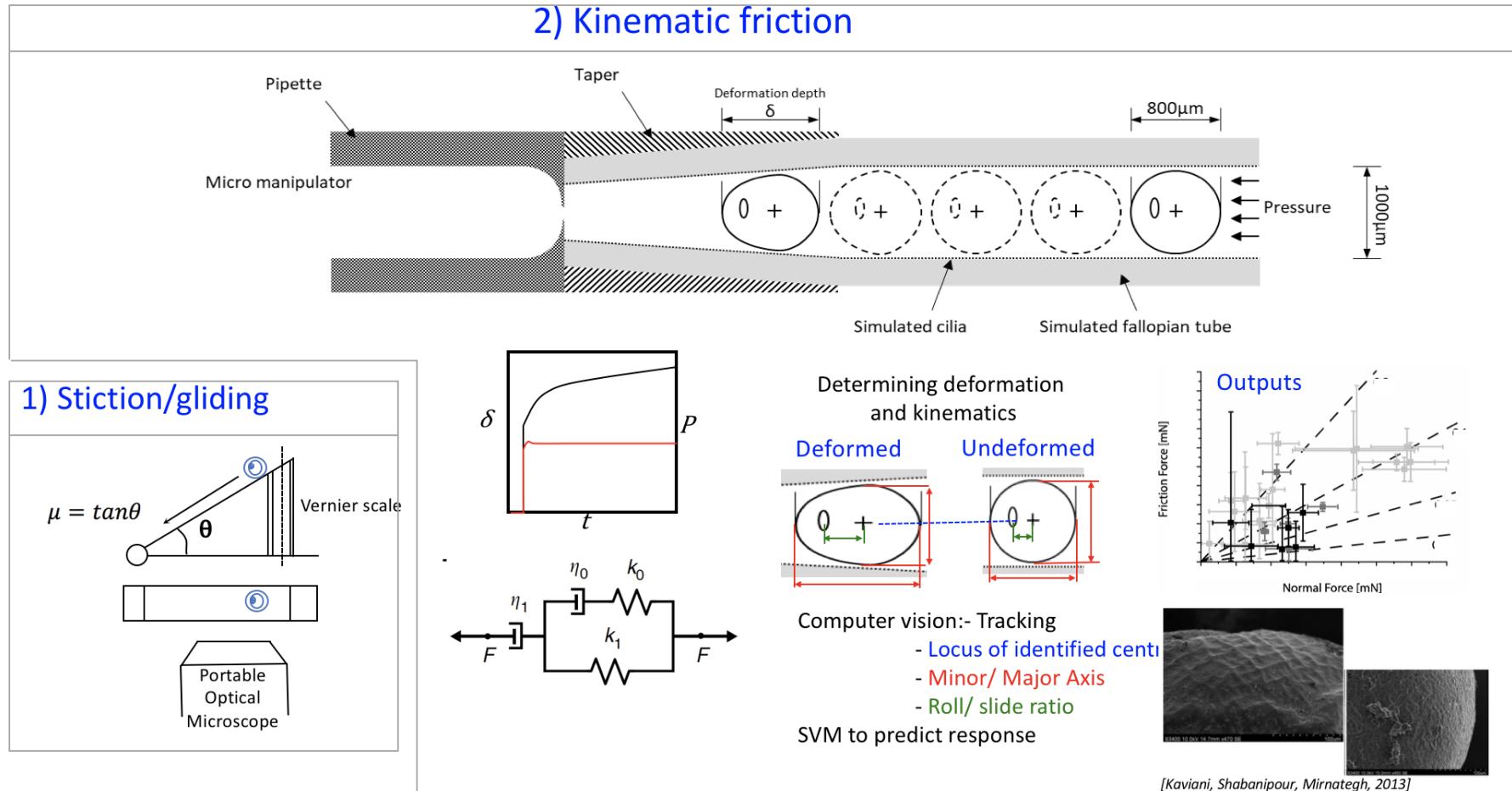
BORN SLIPPY: A tribological discourse on hysterosalpingography as a therapeutic treatment for infertile women



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Tribology



CONTACT AND FRICTIONAL DAMAGE



EPSRC

Engineering and Physical Sciences
Research Council



Dearman. 




Piping hot cold chain technology


asking more from chemistry®





DRILLCO 



 Newton Fund



 European Union
European Regional
Development Fund

 EPSRC

Innovate UK


Department of
BioTechnology,
Government of India
सत्यमेव जयते



Newton-Bhabha
Fund



Marie Skłodowska-Curie
Actions



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Any questions?

And now
Pitches

Midlands Engine Investment Fund



University of Birmingham Business Club: Breakfast Briefing - 8 February 2018

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British Business Bank

Email: simon.cunnington@british-business-bank.co.uk



British Business Bank

The UK's economic development bank

An independent plc since Nov 2014, with the UK government as sole shareholder

We work with 100+ partners



We improve finance markets for smaller businesses, so they work more effectively and dynamically



This helps businesses thrive and prosper, building economic activity in the UK



www.meif.co.uk



European Union
European Regional Development Fund



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The business finance guide

- Written by experts, an easy-to-understand guide to finance options at each stage of business life cycle
- Wide range of supporters, links put in front of c.1m businesses through direct marketing and partners
- Re-launched in June 2017 with enhanced digital content
- www.thebusinessfinanceguide.co.uk/bbb



European Union
European Regional
Development Fund



Department for
Business, Energy
& Industrial Strategy

Midlands Engine Investment Fund

supported by the European Regional Development Fund

Financing the Midlands Engine

- Close collaboration between BBB, BEIS, DCLG and 10 Local Enterprise Partnerships (LEPs) in the West Midlands and East & South-East Midlands
- Fund of Funds, bringing together over £250 million of ERDF, EIB and BBB funding to invest in SMEs across the region between 2017 and 2022
- MEIF funding will support new and growing SMEs, create jobs and encourage and attract additional private sector investment
- Public procurement undertaken to appoint commercial fund managers to run underlying funds



www.mEIF.co.uk



European Union
European Regional
Development Fund



 Department for
Business, Energy
& Industrial Strategy

Midlands Engine Investment Fund

- **Small Business Loans**
 - For recent start-ups and existing SME businesses seeking to borrow £25k - £150k to kickstart activity
 - **BCRS Business Loans** - £17m fund in the West Midlands
- **Debt**
 - For established SMEs needing to borrow from £100k to £1.5m to finance growth
 - **Maven Capital Partners** - £50m fund in the West Midlands
- **Equity**
 - For SMEs with ambitious growth plans seeking an equity injection of up to £2m
- **Early Stage and Proof-of-Concept**
 - For early stage SMEs looking for funding up to £750k to commercialise innovative new products or services

Funds to be announced shortly

www.meif.co.uk



European Union
European Regional
Development Fund



**European
Investment
Bank**
The EU bank



Department for
Business, Energy
& Industrial Strategy

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**MIDLANDS
ENGINE**
Investment Fund

 Delivered by British Business Bank
Financing growth for Midlands businesses

Midlands Engine Investment Fund

Who can apply?

An SME with a material part of its operations, staffing or trading based in the MEIF area (or to be established within 2 years).

State aid and sector restrictions may apply.

Why apply?

MEIF funds can provide funding options that can act as the boost a business needs, for example by:

- Funding expansion projects
- Making asset acquisitions
- Launching a new product/service
- Filling gaps in working capital

How to apply?

Visit the MEIF website to find out details of the available funds and managers.

1. Find a fund manager at www.meif.co.uk
2. Make an enquiry direct to the fund manager and **submit a business plan**
3. The fund manager will contact you to see if the business qualifies
4. Make a formal application
5. The fund manager evaluates the application and makes investment decision

www.men.co.uk



European Union
European Regional
Development Fund



**European
Investment
Bank**
The EU bank



Department for
Business, Energy
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**MIDLANDS
ENGINE**
Investment Fund
 Delivered by British Business Bank
Financing growth for Midlands businesses



**MIDLANDS
ENGINE**
Investment Fund



Delivered by British Business Bank
Financing growth for Midlands businesses

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Next...

BIG DATA CORRIDOR

A NEW BUSINESS ECONOMY. SMART APPROACH. BRIGHT FUTURE



European Union
European Regional
Development Fund

Big Data Corridor – why you?

An exciting opportunity to be part of the **Big Data Corridor grant funded programme**

- access to expert technical and commercial support
- exploit the opportunities of data driven innovation for your business



What's in it for you?

- Big Data Corridor will
 - give businesses in the Greater Birmingham and Solihull LEP a competitive edge in this emerging market
 - help accelerate your capabilities in the use of data
 - maximise your opportunity to increase growth and your market share of the growing global data economy

Why is data important?

- Data is driving the UK's digital economy
 - basis of competition and growth
 - enhance your productivity
 - optimising efficiencies
 - create real value in development of new products and services.

What's on offer?

Little or no experience of handling data?

- Support to develop knowledge and skills
- Learn how to use information to the advantage of your company

Already know what you are doing?

- Technical expertise and business advice to accelerate your product development and / or business plans

Who is involved?

- 3-year project until October 2019 on big data funded by the partners and ERDF (European Regional Development Fund)
 - BCC: Digital Birmingham: Lead Partner & project management & SME engagement
 - Aston University: Research co-operations, consultancy, demonstrators for photonics
 - Birmingham City University: Data platform, research co-operations
 - Enable iD: Consultancy on data use, privacy and product development
 - Innovation Birmingham: Business support, iCentrum access
 - WMCA: Data owner, innovation



How?

- **Sector insight workshops** to help your business better understand data capture and management; use of sensor technologies and data commercialisation – **starting early October**
- **Online data platform and toolkit** designed to enable experimentation with data and provide resources for new product development – **going live mid-October** **Expert technical assistance** from leading academics and technology organisations with product development from ideation to commercialisation

Available now:

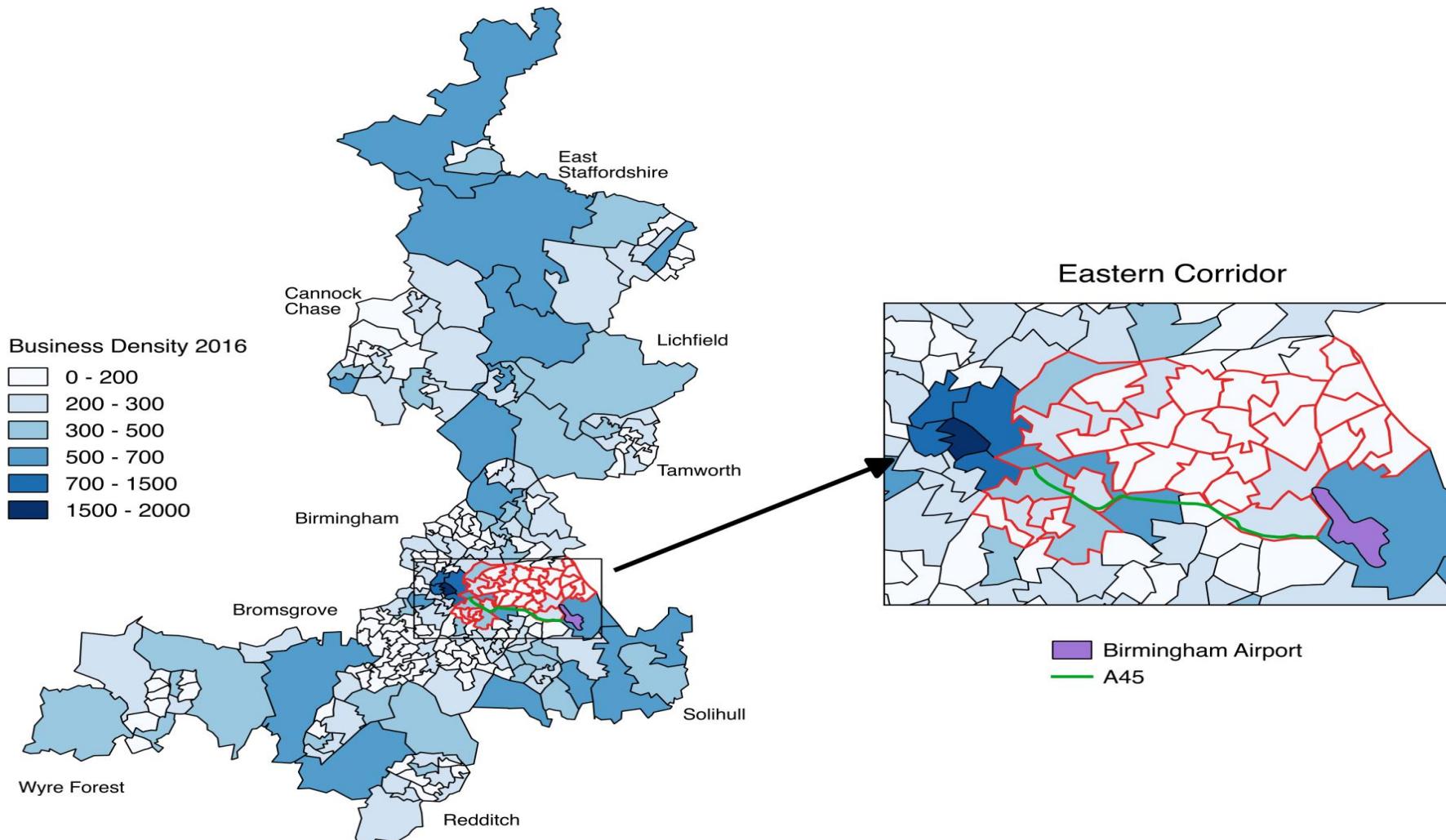
Workshops/mentoring/network

- Managing finance in your growing business
- Every business owns IP – how does it affect you?
- Data as an asset:
 - Health and social care
 - Education
- Helping business access NHS markets
- Overview of transport in the West Midlands
- Empower your business with open data
- Introduction to APIs
- Cybersecurity – risk and reality
- BDC will respond to demand

Tailor made demonstrators

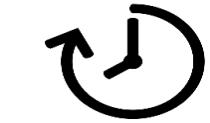
- **Smart lighting** – dual use of lighting for illumination and data communication
- **Energy efficient hybrid lighting system** – combining delivery of natural light with LED, intelligent traffic and weather adaptive street lights
- **Optical fibre sensing** – distributed sensing system and intelligent monitoring of temperature, air quality in buildings, humidity and others
- **Gas sensing** for environmental monitoring

Can you participate?

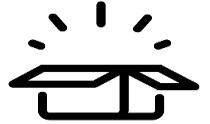


- All SMEs within GBSLEP can apply (Greater Birmingham and Solihull Local Enterprise Partnership)
- BDC will engage with stakeholders and citizens in Eastern Corridor to improve quality of life
- Aim to develop solutions that could help with specific issues e.g. health/mobility

What we provide to qualifying businesses



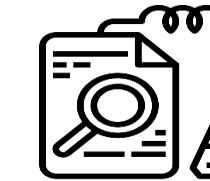
- 12 hours support “understand data”



- Help in bringing new products to market



- Creation of employment opportunities



- Research co-operations for innovation and development

How to sign up:

- Visit <https://bigdatacorridor.com/>
- Complete a registration of interest
- One of our partners will be in touch to agree and arrange your support package
- Attend workshops or events

How to find out more?

Website and expression of interest at: bigdatacorridor.com

E-mail us at: bigdatacorridor@birmingham.gov.uk

Phone us at: Digital Birmingham office: 0121 303 8779

Next...

RESEARCH & DEVELOPMENT MAXIMISING YOUR INVESTMENT





RESEARCH & DEVELOPMENT TAX RELIEF

WHAT'S IT WORTH?

- SMEs
 - effective saving of between 26% and 33%
- Large Companies 'RDEC' scheme
 - Effective 9.6% credit
- Reduces your corporation tax bill
- Loss-making companies get cash-back



IMPACT OF GRANT FUNDING

You can still make a claim:

- Notifiable state aid
 - by project
- Other grant funding

SME claim

RDEC claim

composite claim



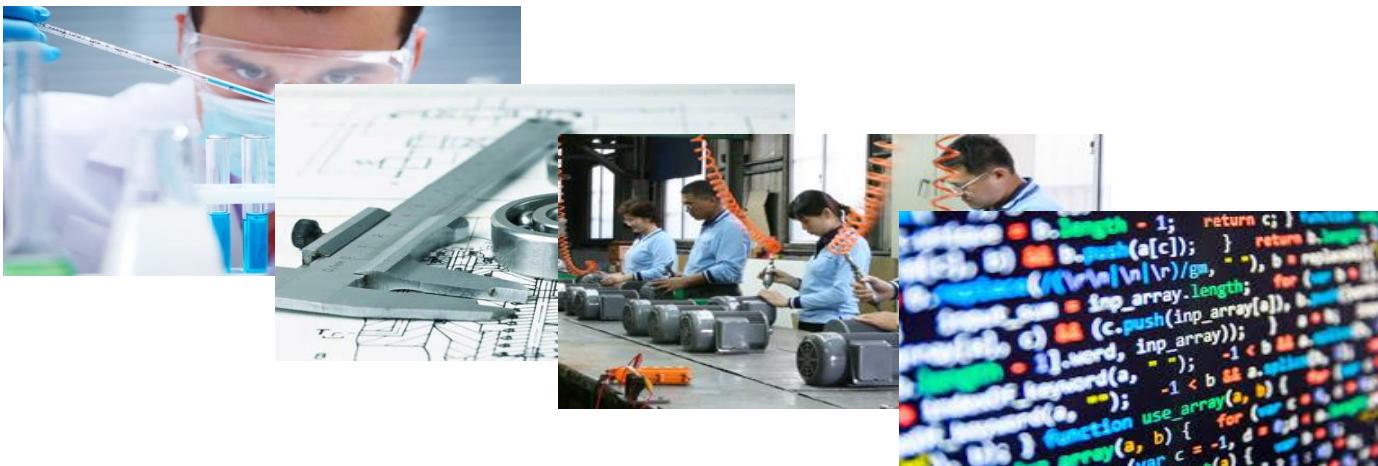
M A Z A R S



RESEARCH & DEVELOPMENT TAX RELIEF

ADVANCE IN SCIENCE OR TECHNOLOGY

- Not just 'world firsts' but
- Seeking improvements to
 - products
 - processes
 - services
 - materials



- Not just lab work, but
 - engineering
 - production
 - design
 - software



RESEARCH & DEVELOPMENT TAX RELIEF

Resolution of
scientific or technological UNCERTAINTY



- How do we do that?
- *Can* we do that?
- Problems
- Testing
- Multiple iterations
- Failure



RESEARCH & DEVELOPMENT TAX RELIEF

Not **READILY DEDUCIBLE**
by a **COMPETENT PROFESSIONAL**

- “Give that to Bob – he’ll sort it”



- Not in public domain
- Replication



RESEARCH & DEVELOPMENT TAX RELIEF

How to maximise your claim

Our approach

- Don't start with the numbers
- Speak to engineers, not accountants
- Answer HMRC's key questions up front
- Industry experience



Please get in touch



Steve Dennett – Senior Manager
E: stephen.dennett@mazars.co.uk
T: 0121 232 9643

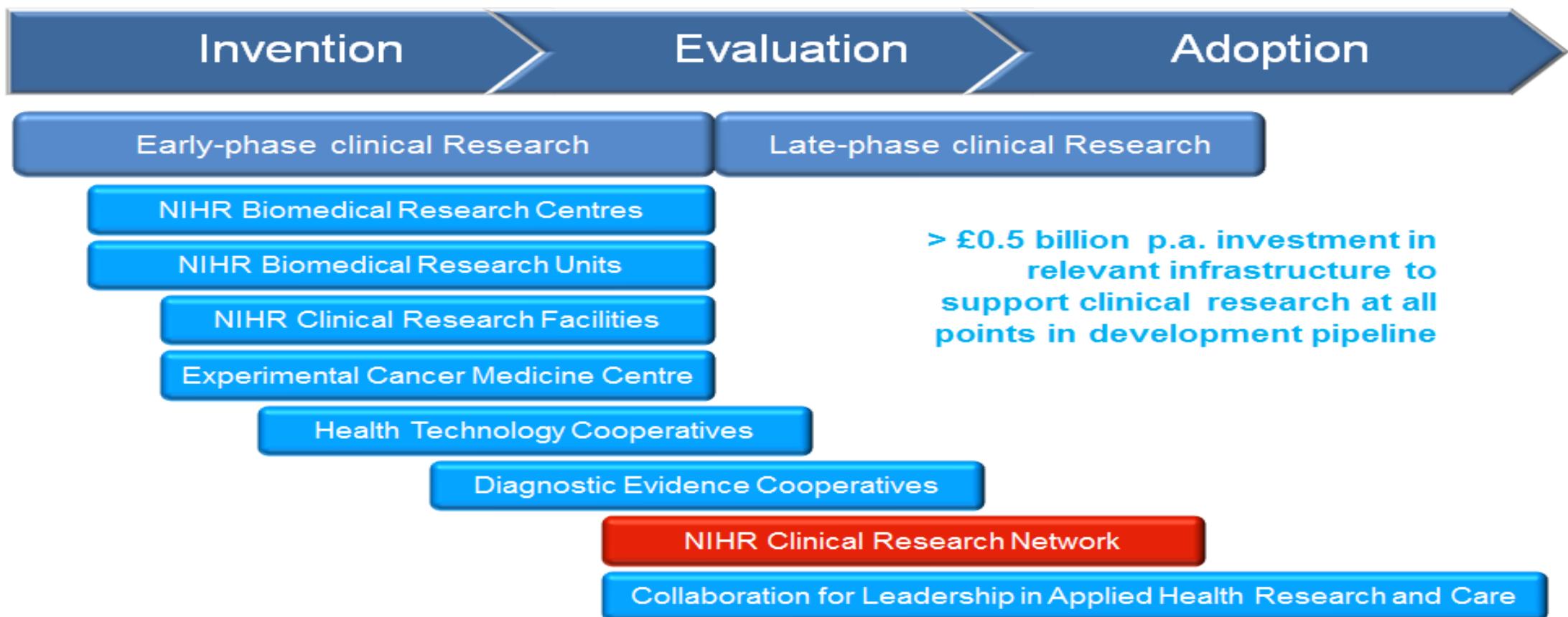
Next...

The CRN: Who we are and what we do

Sinead Collinge
Industry Operations Manager

CRN: West Midlands

Where we fit in



Key statistics



Improved study set-up and delivery

- 86% of WM trusts delivered to commercial research in 17/18
- Increased the number of commercial contract studies delivered in the WM in 17/18 – 154%
- The Network continues to demonstrate that the UK is internationally competitive in speed of study set-up by recruiting **27 global and European first patients** into multiple studies in 2015/16

Clinical Specialties



- West Midlands Clinical Research Network delivers research across 30 clinical specialties:

Ageing
Anaesthesia, perioperative medicine and pain management
Cancer
Cardiovascular disease
Children
Critical care
Dementias and neurodegeneration (DeNDRoN)
Dermatology
Diabetes
Ear, nose and throat
Gastroenterology
Genetics
Haematology
Health services and delivery research
Hepatology

Infectious diseases and microbiology
Injuries and emergencies
Mental health
Metabolic and endocrine disorders
Musculoskeletal disorders
Neurological disorders
Ophthalmology
Oral and dental health
Primary care
Public health
Renal disorders
Reproductive health and childbirth
Respiratory disorders
Stroke
Surgery

Our Services

1) Early Feedback

- expert guidance on delivery of study in NHS
- Identify Collaborators – Academic & Clinical

2) Feasibility

- Site Identification
- Site Intelligence

3) Set Up

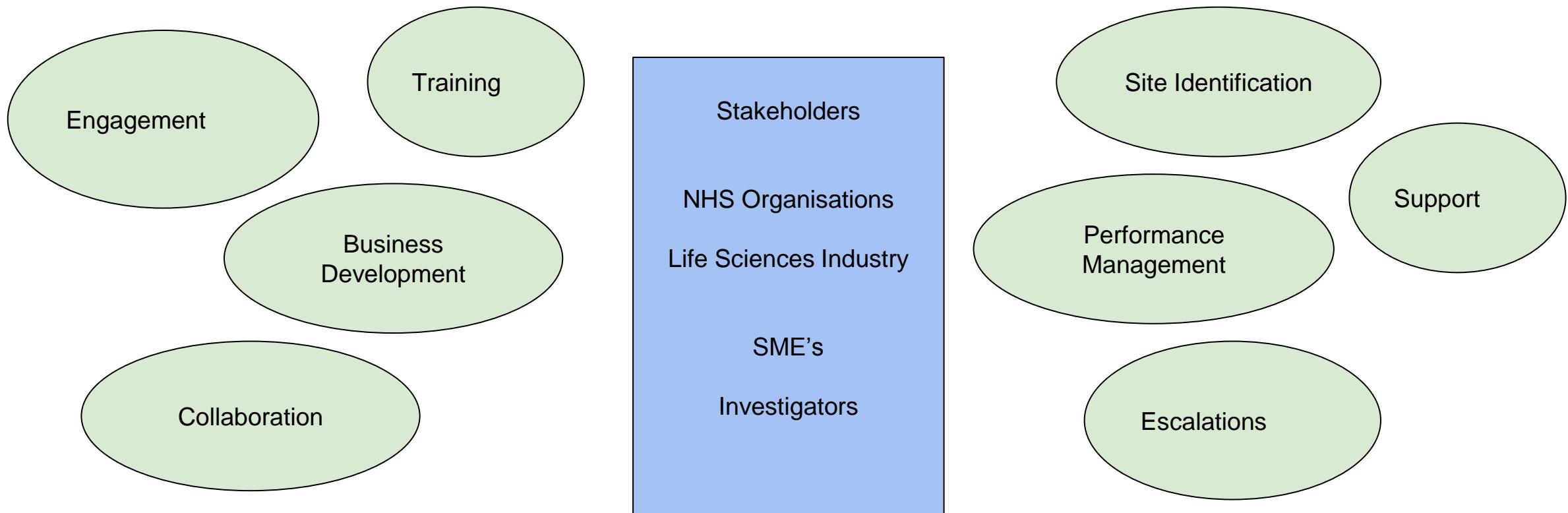
- Study Support Service
- Industry Costing Template
- Model Agreements

4) Performance Management

- Study Milestone Schedule
- Pro-active recruitment monitoring
- Staff support



Our Business



Promote the West Midlands to the Life Sciences Industry as the go-to place for research delivery

Contacts & Further Information

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Thank you to our speakers
and for your attention

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