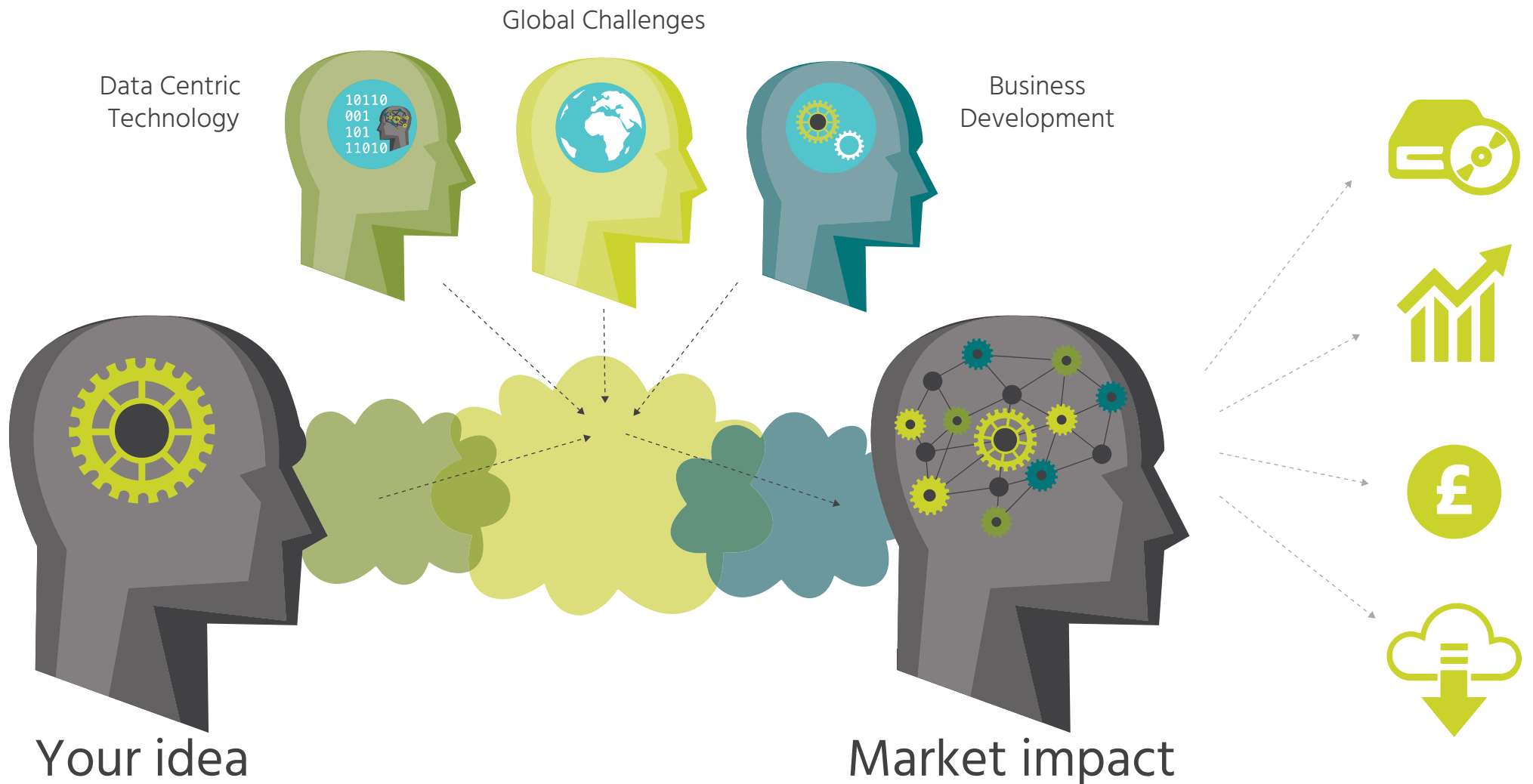


InCEPT™ – A Smarter way to impact for your Innovation



Who can benefit from accelerated translation of research?

If you are engaged in scientific research and have a need to:

- Accelerate the translation of your research ideas into business applications that deliver positive economic and societal impact
- Verify the value of your research by obtaining feedback from potential industrial collaborators
- Quickly collaborate with researchers in complementary fields or industrial partners to compete for challenge or mission led funding e.g. Global Challenges Research Fund (GCRF) or Industrial Challenge Strategy Research Fund (ICRF)
- Discover the best way to commercialise your intellectual property (IP) and improve readiness for a spin-out or start-up



In all of these cases the InCEPT Process can offer an effective way to achieve your objectives and meet the rising expectations placed on the scientific research community.

New Industrial Strategy offers welcome new funds for research, but with strings attached

The recent UK Government Green Paper on its new Industrial Strategy, "Building our industrial Strategy"¹ noted that "while the UK has had a strong record of scientific and technological discovery, we have had a weaker record in translating these discoveries into new businesses", which it cited as "a longstanding weakness relative to other countries. From the development of medical imaging technologies to biotechnology, the UK has too often pioneered discovery but not realised the commercial benefits."

This means that, whilst the Green Paper announces an intention to increase the UK's Science and Innovation funding by an additional £4.7 billion of funding by 2020-21 (a 20 % increase) via the creation of the Industrial Challenge Strategy Fund (ICRF), it did so by attaching some very clear strings. This fund will be used to back technologies where the UK has the potential to take an industrial lead, from early research to commercialisation. The Government made it clear that it expects these investments to deliver and to contribute to "improving how we translate our world-class research into commercial outcomes."

¹<https://www.gov.uk/government/consultations/building-our-industrial-strategy>

Rising expectations of the UK research community

Following the publication of the Nurse Report² in late 2015, and the Industrial Strategy Green Paper, most researchers now recognise that expectations about the impact of their work are rising. Politicians would like the UK Science base to play their part in an improving-productivity Britain by developing new innovations and applications that can fuel the competitive positions of UK based companies.

These pressures mean that more than ever before researchers will need to actively engage relevant users of research and stakeholders at appropriate stages. Nurse made clear that these should include:

- Greater engagement and collaborative working with business
- Improved handling of multi- and inter-disciplinary research

The Research Councils already demand that all research proposals, as a condition of funding, include “Pathways to Impact”³, where bidders are encouraged to demonstrate positive economic and societal impact arising from their research.

In addition to national UK expectations, there are many pressing grand Global Grand Challenges. There are widespread expectations that global scientific endeavour can generate solutions to overcome these problems. Many of these are now backed by the global consensus achieved in the United Nations Sustainable Development Goals (SDGs)⁴. The Global Challenges offer an opportunity for the UK to leverage its outstanding reputation for science to meet its international obligations and commitments to support sustainable development through a

commitment to Official Development Assistance (ODA).⁵ Indeed, this programme affords even more funding opportunities for researchers such as the Global Challenges Research Fund (GCRF)⁶ and Cross-Government Prosperity Fund⁷.

The vital question for researchers is how to take advantage of this improved funding environment, whilst ensuring that their research is translated into applications that meet the political expectations of greater economic and societal impact?

Improving Translational Research Effectiveness

These rising expectations can only be met, if innovative researchers can discover new ways to:

- Engage collaboratively other researchers with complimentary expertise and intellectual property from other disciplines in new transdisciplinary teams.
- Secure early feedback on the value of their research and ideas from potential industrial or business collaborators, who can contribute real insight on their needs to solve real-world problems
- Work more closely with other subject matter experts to understand how their ideas can:
 - Leverage data and advanced technologies, e.g. machine learning, AI
 - Generate fresh approaches to problem solving
 - Uncover existing solutions that can be reapplied in new environments
 - Create non-economic impacts e.g. positive environmental and / or societal benefits

²Ensuring a successful UK research endeavour
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478125/BIS-15-625-ensuring-a-successful-UK-research-endeavour.pdf

³Research Councils UK 2014) – <http://www.rcuk.ac.uk/innovation/impacts/>

⁴<https://sustainabledevelopment.un.org/sdgs>

⁵<https://www.gov.uk/government/collections/official-development-assistance-oda--2>

⁶<http://www.rcuk.ac.uk/funding/gcrf/>

⁷<https://www.gov.uk/government/publications/cross-government-prosperity-fund-programme/cross-government-prosperity-fund-update>

Typical outputs from an accelerated research translation process

Accelerating Formation of Trusted Collaborations

This early phase of the collaboration process delivers:

- A collaborative environment that supports the development of highly effective teams focused on developing impactful solutions to an agreed economic, environmental, or societal challenges
- Early identification of transformational opportunities for the creation of new IP value that supports both the research agendas and commercial drivers of all participants
- A practical lightweight governance process that supports an agile, open way of working and shared commitment to the collaboration amongst all participants

Rapid Alignment of Objectives, Motives and Metrics

To create a shared research consensus for a given research agenda, the approach provides:

- A shared view of the prioritised goals for the translational research programme over the short, medium and long term
- Better understanding and agreement of the trade-offs between the researchers / innovators and business collaborators in terms of goals and objectives
- A shared view of what is realistic in terms of outcomes and timescales.
- Development of ways in which new combinations of assets developed from the collaboration can offer new insights or knowledge that help to create deeper understanding leading to even greater potential for solving a specific innovation challenge
- Greater clarity of the expected positive impacts of the research and the associated risks

Effective Management of Intellectual Property and Data

Ultimately the collaboration will generate new IP as a result of successful research translation, which means that collaborators need to have a shared understanding on:

- Background IP, including data, and how this will be leveraged
- How ownership of new IP is allocated between the collaborators
- The economic and societal value of assets developed from the collaboration'

Meeting External Stakeholder Expectations

The approach consistently delivers to the needs and interests of external stakeholders through:

- Regular validation of business benefits
- Renewed and revalidated commitment from industry and other stakeholders to support the project
- An on-going and shared understanding of the risk profile of the project

Overall each step of the process and the way that it is delivered has been to developed with a clear focus on promoting openness and establishing robust and trusting relationships between all the collaborators.

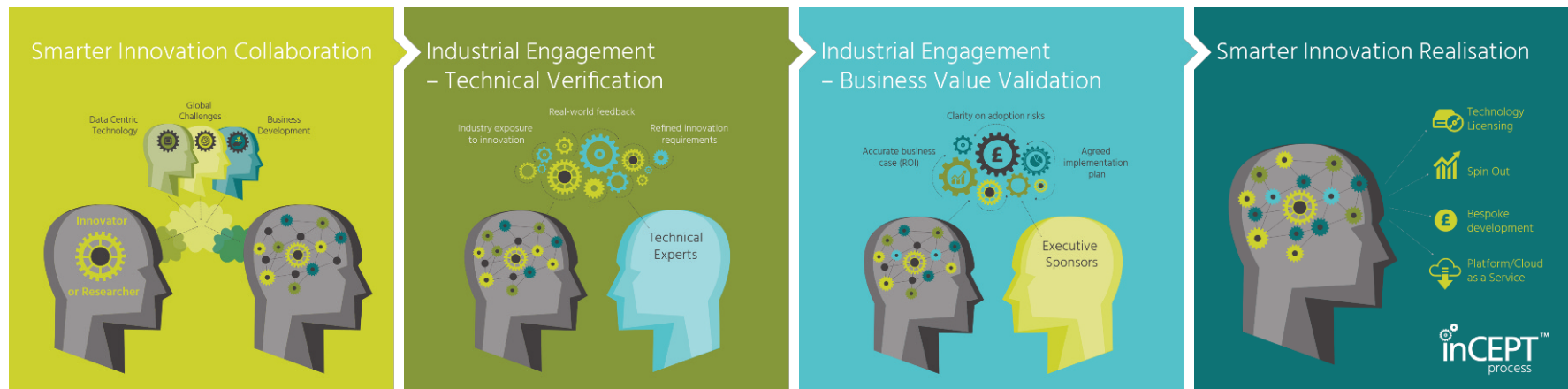


IBM Research collaborates with strategic research partners to accelerate smarter innovations. The STFC's Hartree Centre is one of our key partners where we are working to extend the boundaries of Big Data and cognitive computing within UK industry.

Cambium's understanding of data centric computing technology combined with their deep expertise in the design and development of effective collaborations has made a valuable contribution to accelerating the development of this partnership. They have helped accelerate the development of trust between our respective research teams and supported the development of ways of working with our industrial partners in the Programme, which ensures we are delivering smarter innovations that meet the real-world challenges of industry.

Dr Dave Watson CBE, Director IBM Research, UK

Delivering effective translation of scientific research – The InCEPT™ Process



Effective translation of research requires a clear process facilitated by experienced, independent, guides to enable all parties to collaborate with focus and agility. Over the past 5 years working with both researchers and Industrial partners Cambium has developed a refined collaborative innovative process, the **InCEPT™ Process**.

“The **InCEPT™ Process** is a practical and proven approach to collaborative working that can be used by researchers at all stages of their innovation journey. It has consistently delivered rapid development and validation of ideas, research and technologies aligned to the needs of industry. An outline of a typical **InCEPT™ Process** is shown below, but in practice the process is customised to the needs of each situation.

An **InCEPT™ Process** offers a smarter collaborative approach to innovation, where the development of an innovative idea or research insight is undertaken in partnership with the potential beneficiaries of the innovation. This approach enables co-production of value that accelerates translation of concepts into validated real-world applications.

An **InCEPT™ Process** builds trust and transparency throughout by:

- Establishing a clear, prioritised, shared view of the industrial / business challenges to be addressed by the innovation
- Creating a safe environment, supported by appropriate legal frameworks, that enable ideas, resources (data) and background IP to be shared openly
- Developing a comprehensive view of potential available solution components from multi-disciplinary teams comprising researchers, relevant technical experts and industrial practitioners.
- Accelerating the development of relevant Intellectual property (foreground IP) capable of delivering positive economic and societal impact
- Support the development of a variety of options for the commercialisation of resulting IP

Discover how an **InCEPT Process™** can accelerate the translation of your research ideas into applications with tangible business value and positive impact.

Get in touch for an exploratory discussion – info@cambiumllp.com +44 845 638 3280

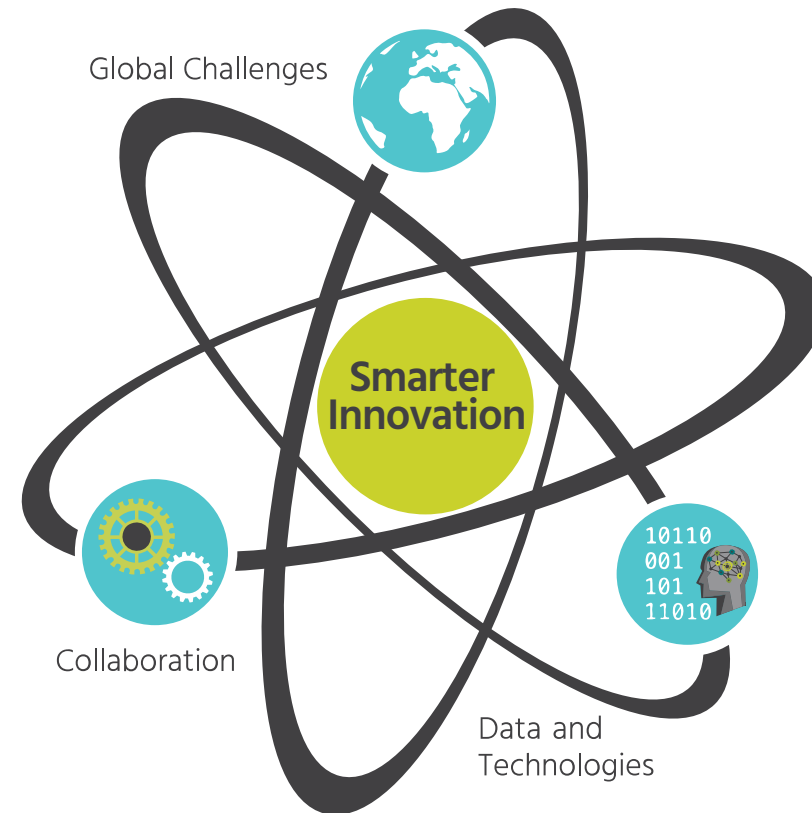
About Cambium

Cambium are the leading provider of **Smarter Innovation** services with a track record of successful delivery for almost a decade. As Smarter Innovation specialists, we:

- accelerate the development of the new multi-discipline **collaborations** / supply chains between researchers, innovators and industry needed to develop applications that have significant positive economic and societal impacts.
- understand the drivers and market demands for innovations that help business and government meet big **Global Challenges** (e.g. UN SDGs) affecting all people and markets. These represent short, medium and long term business opportunities to create sustainable, profitable growth for all parties.
- are experienced in the leverage of **data and advanced technologies** to create innovative new applications of research ideas that maximise differentiation

For any organisation looking to get their ideas used by business and industry we can help. It doesn't matter if you are an **academic researcher**, **early stage business** or an **established business**, we offer relevant **proven support** services.

These services accelerate the progress of innovative ideas at every stage of your innovation journey. From low levels of technology readiness through technical and commercial validation to commercialisation of new intellectual property that can help quickly improve your innovation's market readiness.



Find out more at www.cambiumllp.com

Get in touch for an exploratory discussion – info@cambiumllp.com +44 845 638 3280