



CELEBRATING 20 YEARS
OF INNOVATION



ANNUAL REVIEW 2023-2024



CPI's Annual Review 2023-2024 is brought to you by:

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3

Impact • 20 years of innovation

1 FOREWORD

3 MEASURING TRUE IMPACT

7 20 YEARS OF CHANGE

8 OUR IMPACT IN 2023/24

9 CELEBRATING OUR STORY OVER 20 YEARS

17 IN CONVERSATION WITH FRANK AND NIGEL

19 BEYOND THE CUTTING EDGE

25 Q&A WITH PATRICK GRANT

33

Place • Transformation and partnerships

33 FROM GLOBAL TO LOCAL

35 REGIONAL REFLECTIONS

39 TRANSFORMING PLACE

47

People • Supporting local community

47 20 YEARS OF INVIGORATING LOCAL COMMUNITIES

49 20 FOR 20: GIVING BACK WEEK

51 CPI'S 20TH ANNIVERSARY ROADSHOW

55 LOOKING AHEAD TO THE NEXT 20 YEARS



This year at CPI, we're celebrating 20 years of innovation, impact, and transformative projects supporting the UK manufacturing sector. CPI delivers growth and economic impact by reducing risk in the development and adoption of advanced technology for customers of all sizes, from spin-out to multinational, in the pharmaceutical, healthtech, sustainable materials, and chemicals industries.

Innovation requires us to take risks. It's about pushing boundaries and realising the full potential of the UK's incredible depth in science and technology by accelerating the journey to competitive advantage and commercial success. By connecting the dots between industry, academia, governments, entrepreneurs, and the investment community we deliver impact and a more sustainable future through deep tech innovations.

Created to make a positive change in the North East in 2004, something that has always been in CPI's DNA is the effect that we have had on the regions in which we work. With capability now extended across the North East and Scotland, and the reach we achieve through our membership of the High Value Manufacturing Catapult, we can show how our presence has literally transformed landscapes and shaped local economies.

We always say that the most rewarding features of working at CPI are captured in the purpose and relationships delivered through the people and communities that we work for. After 20 years that remains true for everyone who has been part of our journey. You have all been integral to this success and I hope will remain a part of our future as we continue to fulfil this enduring mission.

Everyone at CPI is looking forward to the next 20 years of innovation, leading the change for a better future; for our people, our places, and our planet.

Thank you for celebrating with us and as we say at CPI... let's innovate together.

A handwritten signature in white ink, reading 'Frank Millar'.

Frank Millar (He/Him)
Chief Executive Officer, CPI



Measuring true impact:

Introducing a data framework for meaningful change



Sarah Thomas
Impact Manager
CPI

Impact is one of the most important words in the dictionary for us at CPI. It was the reason we were established 20 years ago and continues to drive everything we do.

But it's a very broad term. As an organisation with diverse projects spanning multiple industries, establishing universal measures for 'impact' is no easy task. A project team optimising EV batteries and one producing synthetic DNA are likely to have completely different outcomes and collect different information when assessing the impact of their work.

That means we've tended to mark our impact by topline stats such as the number of projects we've supported or the number of academic institutions we've engaged. And, while these are important, they don't always tell us the full story.

Standardising how we measure the true impact of our projects is something we must do – to set long-term goals and measure our progress towards them, to replicate processes that are working well and avoid ones that aren't.

That's why we've adopted a new, more forensic approach to evaluating our impact. And we've developed a game-changing new tool to help us do it.

Measuring true impact

Our new Impact Evaluation Framework enables us to move beyond activity tracking and assess in detail the role CPI has played in each project. It also allows us to draw more precise lines of causality from our input in each project to its final outcomes, whether specific such as helping secure regulatory approval for a new product or broader like creating a healthier society.

It relies on our Impact team meticulously collecting, validating, analysing and reporting data, and homing in on several key indicators that link our diverse projects together.

We divide these into three main categories:

Industry support is the largest of the three. At the organisational level, it looks at partners we've supported through projects, workshops, consultancy, and other services. In the 2023/24



financial year alone, this included 189 support activities for small and medium-sized enterprises (SMEs) and 111 for non-SMEs.

In addition, we submitted 123 collaborative research and development (CR&D) funding bids, convening industrial and academic partners to tackle shared innovation goals. We also played a pivotal role in the development of 13 business cases, preparing some of our most promising customers for their private investment journey.

Further along in the innovation journey, we helped clients create 56 pieces of intellectual property and develop 89 products and processes in the 2023/24 financial year. Eight of them made their way to market to start having a tangible real-world impact.

We are also looking at indicators that drill down to the project level. The maturity of a new technology is decided by its Technology Readiness Level (TRL) and one of the most important measures of our impact is progressing innovations through the nine levels of that scale. As a result, 'TRL movement' is another crucial metric we use to measure our impact.

Strategic leadership is a category that recognises another important way we make impact: through influential thought leadership and industrial foresighting. As an organisation, we contribute to industry standards and regulations, cutting-edge research papers and technological roadmaps. We need to look at a completely different set of metrics to measure our progress in this area, some of which we have gathered for the very first time this year.

In 2023/24, we contributed to 44 roadmaps and research papers and 19 sets of industry standards and regulations. We also plan to measure additional metrics, such as changes to policy and funding, as they emerge in the coming years.

Competence development is the third strand of our framework – another crucial way in which we make an impact. Innovation is driven by people. We can only unleash the potential of breakthrough technologies such as biopesticides and EV batteries if enough people



have the skills to produce and maintain them at scale. So, alongside developing new technologies, we work to identify potential gaps in the workforce and provide training at various levels.

We have formally recognised our impact in this area relatively recently. So, we needed to develop another new way to record and standardise how we report the volume and effectiveness of the training we deliver. In the first year of reporting, we supported 405 external learners – from scientists beginning their careers to experienced engineers furthering their skills – through a wide array of training activities. This included the RNA Training Academy, SME Outreach training, equipment training and many other programmes.

From learning to implementation

It's one thing to be able to define the full extent of the impact we make as an organisation. But how can we feed those learnings back into our everyday operations?

We developed a new AI-supported Impact Reporting Tool, which we call Impact 360, to make this possible. Previously, all of the diverse data mentioned above had to be collected manually by reaching out to people across the full breadth of our organisation. The tool now provides a 'single source of truth' that can be stored and accessed by

any of our CPI colleagues. We have also connected with external data sources to feed in real-time accurate data thereby enabling us to collect critical data points to enhance data integrity.

As well as key metrics, the tool gathers specific data from every project we work on. That means when a new product from one of our clients goes to market, we can quickly trace through our project history to find out exactly how instrumental our contribution was to that outcome. Equally, when taking on a new project, our teams can see what we have done in the field before and explore how we can harness that experience to make an even bigger impact.

This approach is entirely new, not just here at CPI, but also in the external environment. And it's set to transform how we work.

Connecting the dots in this way enables us to be even more transparent and accountable in communicating the impact of our work. It will also make us more self-reflective, bringing fresh insights to help constantly refine our own processes. Ultimately, that will enable us to provide the most value to our clients and deliver groundbreaking, sustainable innovations that benefit society at large.

CPI is an organisation driven by impact. Our new approach will ensure that we deliver it on the biggest possible scale.





We have built a strong partnership with CPI over the past 2 years since establishing our offices in Liverpool's Knowledge Quarter. In 2023, we successfully collaborated on an Innovate UK national accelerator, and in 2024, we are aligning business support for our respective Investment Zone programmes. Together, we are driving opportunities such as developing a microbiome R&D cluster with iiCON, University of Liverpool, and industry partners, while advancing investment in life sciences, deep tech, and manufacturing. This partnership strengthens our shared commitment to fostering innovation and economic growth in Liverpool City Region.

LYVA
LABS

Lorna Green

CEO
LYVA Labs

20 years of change

For nearly a decade, we have diligently reported our key performance indicators (KPIs). It's time to look back and celebrate the achievements made possible through our collective efforts.



2,800

Business collaborations



3,000

Knowledge transfer activities



1,800

Projects delivered



37%

CR&D projects spanning the innovation ecosystem



1 in 5

Projects involving academia



Impact in innovation

Find out how we help business grow and succeed

Our impact in 2023/24

In 2023, we shifted from activity tracking to measuring the true impact of the work we do. Our new framework demonstrates our impact in three critical areas: industry support, strategic leadership, and competence development.

300

Business support activities



89

Products and processes developed



8

Products and processes brought to market



405

External learners supported



56

Client IP established



13

Investor readiness support



44

Research papers contributed to



19

Industry regulation contributions



38

Thought leadership publications



Celebrating our story over years

As a member of the High Value Manufacturing Catapult, we've fostered innovation across a wide range of markets, from HealthTech and pharma, to novel food, materials, and energy.



One North East establish CPI

CPI is established as part of a government initiative to consolidate, build on and exploit the North East's knowledge and skills to ensure that the region's economy remains competitive in the growing global marketplace.



CPI and Cenamps merge

Together, with the Centre of Excellence for Nano, Micro and Photonic Systems (Cenamps), CPI champions four key technology areas: advanced processes, low carbon energy, functional materials and printable electronics.



High Value Manufacturing Catapult founded

The network of centres affords companies access to technical expertise, infrastructure, skills, and equipment that would otherwise be out of reach.



CPI celebrates 10 years

Westminster celebration of CPI's innovation successes attended by Chief Scientific Advisor to Business, Innovation and Skill, President of the Royal Academy of Engineering, Chair of the Health and Safety Executive, and Vince Cable MP.



CPI Enterprises is formed

The venture capital arm of CPI is born to invest in high-potential, early-stage deep-tech companies that work with CPI. CPI Enterprises is a value-add investor that while separate from CPI, shares the same values, strategic focus, mission, and vision.



CPI joins UK Government's Vaccine Taskforce

CPI helps to identify and produce effective COVID-19 vaccines and support the manufacture of novel mRNA vaccine candidates.



KnitRegen

CASE STUDY

KnitRegen

KnitRegen is a next-generation MedTech company creating smart, wearable technologies that support neurological recovery from stroke or brain injury.



The challenge

KnitRegen's UK-patented smart textiles are designed to deliver state-of-the-art muscle stimulation for continual rehabilitation outside of therapy sessions for stroke survivors, providing a new treatment for those with impairments to recover arm movement.

To further commercialise the product, KnitRegen sought to reduce the prototype from the size of a backpack to a portable wristband, integrate additional functionality, and increase the product's energy efficiency.

How we helped

- ➔ Development routes for prototype improvements.
- ➔ Provision of expertise in electronics and firmware design, and bespoke electronic component development.
- ➔ Feasibility study on actuator performance.
- ➔ Consultation on pathways for future product development.

Achievements

- ✓ Streamlining of electronics and key components to create an advanced portable wristband prototype.
- ✓ Integration of Bluetooth-enabled functionality utilising rechargeable batteries with safety controls.
- ✓ Implementation of an auditory cue for greater accessibility.
- ✓ Component replace of actuator to reduce power draw, making the device safer and more efficient.

Impact

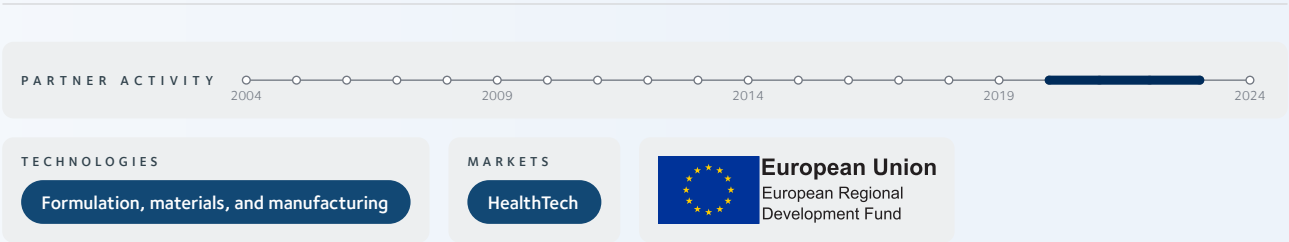
- ⊕ The technology's wristband form factor has enabled it to be evaluated as a medical device in future clinical trials.
- ⊕ Data collected through the device will contribute to continual rehabilitation methods for further IoT devices.
- ⊕ KnitRegen has raised £275,000 in private investment and seen its team grow by 20%.

“CPI designed the electronics that enabled us to repackage our technology into a wearable and portable form. The collaboration has also enabled us to rigorously test all the components to meet safety standards. We can now bring this technology to more people to help with their stroke rehabilitation.”



Dr Laura Salisbury

Founder
KnitRegen





CASE STUDY

Soteria®

Soteria® is an integral technology for Intract Pharma's revolutionary oral delivery platform, capable of protecting the mAb from enzymatic degradation to ensure higher drug levels in transit and to maximise tissue uptake of the drugs.



The challenge

The instability of protein-based therapeutics in the gastrointestinal (GI) tract and their inability to freely permeate across the gut/ tissue barrier hindered Intract Pharma's development of an oral mAb product for the treatment of inflammatory bowel disease.

By developing an infliximab capsule prototype in preparation for a first-in-human clinical trial, Intract Pharma hoped to open the pathway towards an alternative to existing intravenous injections, improving patient experience, reducing treatment time and cost, and reducing the adverse effects that exist with the current solution.

How we helped

- ➔ Definition of quality target product profile.
- ➔ Capsule core formulation definition and optimisation.
- ➔ Small-scale development and optimisation of manufacturing process in preparation for scale-up.
- ➔ Development of qualitative and quantitative analytical methods.

Achievements

- ✓ Determined processing parameters for the large-scale manufacture of the oral infliximab product.
- ✓ Characterisation of infliximab in the final drug product.
- ✓ Stability assessment and shelf-life determination of infliximab in final drug product under ICH accelerated conditions.

- ✓ Proof-of-concept for taking the product to clinical trials.

Impact

- ➕ We helped propel this revolutionary Soteria®-enabled oral treatment to clinical trials, making it one step closer to a viable reality for Intract Pharma and people living with IBD.

“Thanks to the expertise in drug development and manufacture brought by our colleagues from SGS, CPI, and Pharmidex, we successfully developed a scalable manufacturing process for oral antibody products.”



Silvia Matiz
Formulation Scientist
Intract Pharma





CPI continues to be a cornerstone of innovation in medicines manufacturing, driving advancements that are transforming the way we develop and deliver treatments. Their collaborative approach, bringing together experts from across the sector, accelerates progress in RNA-based medicines and novel drug delivery systems. By enabling groundbreaking solutions, CPI is helping to position the UK as a global leader in pharmaceutical innovation, improving healthcare outcomes and supporting economic growth.



Dr Sarah Goulding

Director of Future Medicines
Innovate UK



We've collaborated with CPI for over 10 years, not just on RNA but across vaccine technologies. Their broad expertise in manufacturing and process innovation has been invaluable, and the continuity of our partnership has fostered trust and strengthened our ability to work together effectively.



Professor Robin Shattock

Chair in Mucosal Infection and Immunity
Imperial College London



a  cpi podcast





In celebration of CPI's 20th anniversary, CEO Frank Millar sits down with CPI's founding CEO, Nigel Perry, in a compelling video discussion that dives into CPI's impactful journey over the past two decades. This conversation, set in the Catalyst building in Newcastle, offers a rare look at CPI's origins, challenges, and strategic pivots as narrated by the two leaders who have guided CPI's evolution.

Nigel reflects on CPI's early days when he arrived at the Wilton Centre armed with little more than a vision and his car keys. He shares stories of how CPI was built from the ground up, beginning with partnerships, a dedicated team, and an unwavering focus on serving the North East. From navigating the "valley of death" in technology commercialisation to ensuring sustainable funding models, Nigel discusses the foresight and collaborations that enabled CPI to bridge the gap between the public and private sectors, spurring significant regional growth.

In discussing the vision that continues to drive CPI, Frank and Nigel address a powerful question: "If CPI is the answer, what is the question?" Their responses illustrate how CPI has evolved into a global leader by addressing this question head-on, innovating new solutions, and staying adaptable to industry needs. Together, they recount the formation of The Innovate UK Catapult Network, and the role CPI played in its development. This milestone, among others, underscores CPI's lasting influence on national policy, economic development, and industry-led innovation.

Throughout the discussion, the two leaders explore the transformation of the North East's industrial landscape, sharing insights on building CPI's world-class innovation infrastructure. They look forward to a future where CPI continues to shape the UK's innovation ecosystem, supporting emerging technologies in a world facing rapid political, environmental, and technological changes.

They offer a rich, firsthand perspective on CPI's legacy and ambition, making it a must-watch for anyone interested in the intersections of technology, public policy, and economic growth. Through their shared stories, Frank and Nigel present an inspiring vision for the next era of CPI's journey.

Watch the full conversation now

Watch or listen to incredible insights from the people driving innovation in the UK today. Join our community on YouTube, Spotify, Apple Music, or wherever you get your podcasts.





Beyond the cutting edge

Why CPI Enterprises represents the next stage of our evolution



Hannah Wade
Managing Director
CPI Enterprises

The world today is almost unrecognisable from the one that existed when CPI first opened its doors more than two decades ago. As it has changed, so has our organisation, evolving to meet the needs of the companies that we support and to tackle the challenges we all face.

Part of that evolution involved the launch of CPI Enterprises in 2019. The venture capital and investor engagement arm of CPI, our goal is to leverage CPI's world-class technical expertise, facilities and network to stimulate impactful investment into early-stage deep tech companies.

That, on the surface, might seem like a strange move for an innovation catalyst like CPI. But for us, this is an innovative approach that follows the same principles that fuelled the launch of CPI

all those years ago – to help innovators turn their ideas into a commercial reality.

A unique approach to innovation

CPI was founded to support the growth and development of innovative companies, to help them bridge the so-called “valley of death” and translate innovative ideas from academia through to commercial reality.

Our world-class technical expertise, facilities, and support are key to achieving this goal. But there's a crucial component: investment.

Access to private investment is the lifeblood of many of these early-stage companies, so in many ways, CPI Enterprises is the natural evolution of CPI's overall mission. It's also truly unique. Though there are other innovation centres and Catapults designed to support early-stage companies, CPI is the only organisation that can invest directly into the companies it supports.



And it works.

To date, we've made 13 deep tech investments, including one successful exit. Our active portfolio spans multiple sectors and stages of development. But they all have one thing in common – and that's a relationship with CPI so that we can support and be a part of their journey to commercialisation.

Informed by expertise, driven by passion

At the beating heart of CPI Enterprises is an experienced investment team who have additional deep tech sector expertise. These are people who have been handpicked to deliver impactful investments.

Like the scientists, technical, and support staff who work in other areas of CPI, they're leading experts in their field. But the other thing they share with their colleagues is that same passion to foster innovation and support companies that are working to tackle some of the biggest challenges our society faces.

That passion is what drove our work with Nuformix, a pharmaceutical development company targeting unmet needs in fibrosis and oncology via drug repurposing. Alongside the traditional support that CPI offered to help Nuformix's management team bring their idea to life, CPI Enterprises worked to execute a number of strategic initiatives including its listing on the London Stock Exchange. In 2022, we realised our investment in the company, achieving a 14.3x return on investment.

We're also working with Qualus, a cleantech start-up that's revolutionising the sustainability of leather production; BiologIC Technologies, an early-stage biomanufacturing business with the world's first biocomputer; and DEScycle, a deep tech disruptor that's changing the face of the \$63 billion e-waste industry.

For every one of the businesses we work with, we're more than just an investor, we're partners. We sit on boards, share our expertise and passion for their purpose, and help to facilitate access to the wider CPI ecosystem. It's all part of our mission to drive growth and help more deep tech startups reach commercialisation. But more than that, it's about following our heartfelt belief in what these companies are trying to achieve.

Looking ahead

Though our little corner of the innovation ecosystem has only been in existence for a small proportion of CPI's 20 years, you can expect us to play a big part in the next two decades of the organisation's existence.

Private investment is incentivised by public investment, and we don't underestimate the vital role that we can play in supporting the growth of the UK's economy, which goes hand-in-hand with enabling groundbreaking healthcare and sustainability innovations.

We've achieved so much in a short space of time, but this is just the tip of the iceberg. We have big plans for the future, continuing to support innovative companies and expanding our reach so that we can help more people make their ideas a reality. Here's to the next 20 years!



3DBT

CASE STUDY

3D Bio-Tissues

A biotech startup spun out from Newcastle University, 3D Bio-Tissues (3DBT) is at the forefront of producing bio-equivalent tissues for clinical and cellular agriculture.



The challenge

With traditional meat production accounting for 57% of all greenhouse gases from food production, cellular agriculture offers a solution for meeting the growing consumer demand for meat alternatives that are both ethical and sustainable.

To develop cultivated meat, a growth agent that traditionally contains fetal bovine serum taken from foetuses in pregnant cows during slaughter is needed. 3D Bio-Tissues aimed to develop a novel, cost-effective and ethical growth medium for cultivated meat production.



“We are proud of partnering with CPI for our groundbreaking research in cellular agriculture. This project demonstrated the value of applying CPI’s established processes for accelerated product development in this fast-growing space.”



Dr Ricardo Gouveia

Chief Scientific Officer
3D Bio-Tissues

How we helped

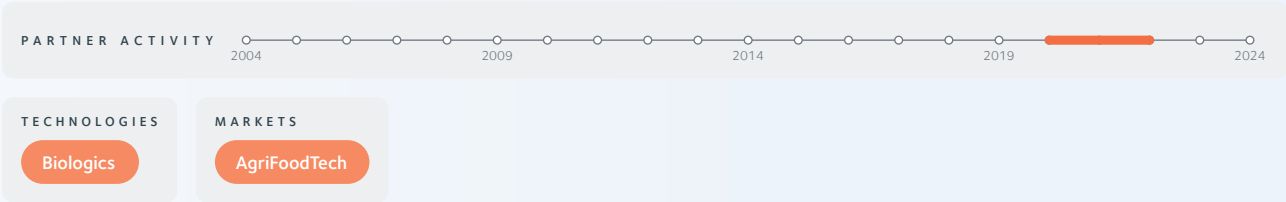
- ➔ Development and optimisation of automated, high-throughput screening for bio-sustainable macromolecules.

Achievements

- ✓ Development of high-throughput screening platform analysing macromolecules for effects on animal cell and tissue growth.
- ✓ Identified macromolecules that increase cell growth and yields.
- ✓ Reduced timeframe for creating growth media product.

Impact

- + 3D Bio-Tissues has created five new City-Mix™ supplement products that are cost-effective to produce.
- + Suitable alternatives to animal-based products have opened routes to a more ethical and sustainable industry.



The Ilika logo, consisting of the word "ilika" in white lowercase letters inside a teal circle.

ilika

CASE STUDY

HISTORY project

A collaboration of industry and academic partners working together with Ilika Technologies Ltd. to deliver a new generation of solid-state batteries built specifically for the requirements of EV manufacturers.



The challenge

As the market for electric vehicles (EVs) grows, the industry plays a crucial role in the UK Government's Net Zero targets to decarbonise the transportation sector. Looking to ensure the continued sustainability of this growth sector, Ilika was focused on increasing the reliability and longevity of solid-state batteries. By doing this, Ilika hoped to position the technology as a safer, more efficient, and more attractive alternative to existing lithium-ion battery solutions.

How we helped

- ➔ Expertise in formulating slurries incorporating novel silicon-based materials and electrode manufacture.
- ➔ Optimisation of silicon anode formulations for enhanced processability and transfer to larger-scale manufacture.
- ➔ Knowledge transfer support to commercial partners.
- ➔ Demonstration of Nexeon's material potential.
- ➔ Incorporation of high-silicon content anodes into Ilika's solution.



Achievements

- ✓ Anode formulations incorporating next-generation active materials developed.
- ✓ Electrodes produced with 3x conventional capacity.
- ✓ Scale-up route demonstrated for the formulation and coating process for roll-to-roll slot die coating.

Impact

- + Optimisation of high silicon anode formulations crucial in developing solid-state batteries capable of powering EVs.
- + Demonstrated the strength of unique collaborations between industry and academic partners to develop novel technologies.

PARTNER ACTIVITY



TECHNOLOGIES

Formulation, materials, and manufacturing

MARKETS

Energy storage



CPI complements our ambitions in research, knowledge exchange, and commercialisation. Building on our longstanding KCMC partnership, we're focusing on advanced materials, digital, climate futures, and personalised health. CPI's expertise and facilities will help scale up our research, driving innovations to market and delivering real-world impact.



Ronan McGrath

Professor Emeritus
University of Liverpool



The dynamic collaboration between our local universities and businesses is essential to our region's economic growth. Together, we can provide pioneering businesses with not only additional support but also vital infrastructure, such as the cutting-edge workspace at the North East Technology Park (NETPark). Our strong relationships, particularly with Durham University, have helped us to develop an innovative ecosystem that is creating high-value jobs for the future.



Sarah Slaven

| Managing Director
| Business Durham



Q&A with **Patrick Grant**

We sit down with Professor Partrick Grant FEng, the latest addition to our Board, to find out more about how his research and experience make him a great fit for CPI.

Midway through 2024 we welcomed Professor Patrick Grant FREng to our Board as a Non-Executive Director. Patrick is the Vesuvius Chair of Materials and Pro-Vice-Chancellor (Research) at the University of Oxford, a Fellow of the Royal Academy of Engineering and a director of Oxford University Innovation Ltd, the University of Oxford's technology transfer company.

Can you tell us a bit about your background?

I studied Material Science at Nottingham University and particularly enjoyed the opportunities to do my own research and experiments. That led me into doing a Ph.D. in the materials department at Oxford University, where I have been ever since, gradually climbing the academic ladder. More recently, I have also taken on various university administration and leadership roles.

My research group works on problems and opportunities that lie at the interface between material science and manufacturing. I'm interested in using smart manufacturing to make better materials – and occasionally even new ones, and better products. My research work started in the aluminum industry, focused on innovative manufacturing methods, and then diversified to encompass all of the main engineering alloys of steels, nickel alloys and titanium alloys. In recent years, my research has further broadened to how to manufacture better batteries.

Your research and background are a great fit for CPI. Could you tell us a bit about your role on CPI's board and what you'll be focusing on?

As a Non-Executive Director, it's my role to provide support, challenge and advice to help the company deliver its strategic

objectives. In terms of my specific contributions, I'm hoping my experience in the challenges of scaling up early-stage ideas or technologies and bringing them to market in a way that delivers broad economic and societal value will be helpful. I have experience in that area in general terms as a director of Oxford University's technology transfer company, but also through commercialising some of my own research. I'm looking forward to understanding more about CPI's work in this area and working out how I can help.

I've been fortunate that my research work has allowed me to gain both national and international perspectives on materials science, and science and engineering more broadly. I will help CPI think about its international position and how a more international strategy might be developed, helping to navigate both the risks and opportunities. I will also help with technology horizon scanning to identify early developments elsewhere that may be of help to CPI.

Lastly, what attracted you to the role with CPI and made you want to be a part of it?

Initially, I knew CPI's name but soon realised that my perception was completely out of date. It was a revelation to learn about the journey that CPI has been on and to hear about its ambition for the future. I was struck and engaged by the dual mission of creating impact in terms of creating high value jobs, economic prosperity and societal benefit, alongside the necessary concerns of a company to ensure the books balance – or better. It's a difficult balancing act but so much has been already achieved by CPI, suggesting that it has the people, skill and commitment to deliver.

In my short time so far, I've been impressed with what I've found out and despite economic headwinds, I've picked up a palpable sense of excitement and ambition. I'm looking forward to learning more and contributing to future success.



CASE STUDY

DEScycle

DEScycle are helping to tackle sustainability in the metals industry with their disruptive Deep Eutectic Solvents (DES) processing technique to extract and recycle gold, nickel, and other precious metals from electronic waste.



The challenge

High demand coupled with dwindling global supplies mean that the costs, environmental toll, and health and safety concerns involved with sourcing high value metals are increasing.

With an increased focus on recycling the 50 million tonnes of e-waste that are produced every year, DEScycle aimed to tap into a projected \$144 billion market by 2028 with its clean technology, first developed in the early 2000s. To commercialise their solution, DEScycle needed support to take their ground-breaking technology from university-based proof of principal to an economically viable process.

How we helped

- ➔ Technology evaluation to identify process gaps.
- ➔ Laboratory pilot-scale closed-loop process demonstration.
- ➔ Access to capital through CPI Enterprises investment.
- ➔ Investor support and engagement.
- ➔ Access to industry-relevant facilities and scale-up equipment.

Achievements

- ✔ Identification and development of missing process gaps.
- ✔ Demonstration of technology process at large lab scale.
- ✔ Achieved their investment and funding goals.

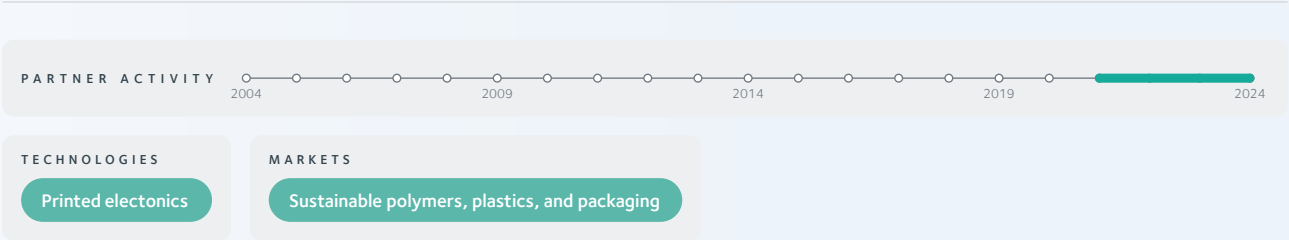
Impact

- ⊕ Successful closure by DEScycle of a £10.2 million Series A funding round to build and operate a pre-commercial pilot plant at Wilton International site in Teesside.

By replacing energy and emission intensive processes with DEScycle’s novel technology we can supply the energy transition with low-impact low-carbon metal. Thanks to CPI’s investment and in-house experience, we will be able to rapidly commercialise this technology and bring real disruption to the metals market.”



Fred White
Chief Commercial Officer
DEScycle





booby
biome

CASE STUDY

BoobyBiome

BoobyBiome is a start-up translating cutting-edge breast milk research into innovative products for improving infant health by helping to establish healthy gut microbiomes in babies where access to the good bacteria in breast milk is a challenge or not an option.



The challenge

BoobyBiome’s next-generation supplement for babies contains probiotic microbes isolated from breast milk and prebiotic fibres to support bacterial growth, contributing to the physical, immune, and cognitive health of newborns by supporting their developing gut microbiome. In commercialising their product, BoobyBiome required support with optimising and demonstrating the feasibility of product strains and process scale-up.

How we helped

- ➔ Optimisation of bacterial fermentation process.
- ➔ Contributing expertise in microbiome therapeutics.
- ➔ Access to facilities and equipment for process development and molecular analytical characterisation.
- ➔ Feasibility study on co-culturing bacteria at scale.

Achievements

- ✓ Optimisation of aerobic and anaerobic bacteria culture conditions.
- ✓ Method developed for co-culturing consortium of bacteria and multi-strain probiotic product manufacturing process.
- ✓ Analytical toolbox development for product characterisation.
- ✓ Demonstration of manufacturing process scalability at 10L.

Impact

- + Follow-on project focussed on pre-clinical programme and preparing for product launch.

“CPI was an excellent partner, aiding in demonstrating the manufacturing feasibility of our top bacterial candidates and distinguishing between strains in co-cultures.

We’re now collaborating with CPI again to complete our preclinical programme and prepare for the launch of our symbiotic supplement. I’m excited to see this work translate into improved health for infants!”



Lydia Mapstone
Chief Executive Officer
BoobyBiome



From global to local

Driving sustainability at CPI



Louise Barker
Director of Impact
CPI

At CPI, we are immensely proud to be a member of the United Nations Global Compact (UNGC). As a member, we embed sustainability into everything we do, from greener manufacturing processes to empowering our communities.

Launched 24 years ago, the UNGC calls on organisations worldwide to contribute to a more sustainable world. It outlines 10 principles for businesses to follow and shared strategies to advance the UN Sustainable Development Goals (SDGs).

Through our pioneering projects, we have a strong track record of developing game-changing clean technologies, improving patient health outcomes and making industrial processes more efficient.

By engaging with the UNGC, we are embedding sustainable principles at the very heart of our organisation. This commitment allows us to continue delivering groundbreaking innovations, protecting ecosystems and empowering local communities.

The journey to net zero is challenging, especially for an organisation like ours that operates across multiple resource-intensive industries. We manage a network of innovation centres across the UK, all equipped with state-of-the-art machinery that is typically energy-intensive. Additionally, our reliance on global supply chains for critical raw materials adds complexity to transitioning to net zero, but we're making steps to achieve it.

Bridging the green gap

As we focus on our own efforts to reach net zero, we are also working across industry to make an impact at every level of our business.

Our Grand Challenge programmes unite industry and academia to tackle fundamental issues in medicines manufacturing. Healthcare accounts for 4.4% of global carbon emissions, with the pharmaceutical industry being a major contributor. Therefore, there is an urgent need to produce drugs in a more resource- and energy-efficient way throughout the supply chain.

From smart bioprocessing to continuous tablet production, each project is developing innovative manufacturing processes with the potential for massive energy savings — up to 69%. Our materials teams are also pioneering sustainable solutions, from longer-lasting EV batteries to alternative proteins.

We're extending our efforts beyond the UK to our wider supply chains. We are collaborating with the Indian pharma industry, which supplies 25% of the UK's medicines, to implement greener manufacturing processes. As part of the UK-India Net Zero Innovation Virtual Centre, we're bringing together a unique coalition of UK and Indian policymakers, R&D companies, start-ups, investors, research groups, and Catapults to tackle this important challenge.

As we also look inward, we've installed solar panels across several of our sites to generate clean energy, increased the number of EV charging points, and implemented an EV salary sacrifice scheme for





our colleagues. Starting with our senior leaders, we've rolled out IEMA environmental training to share knowledge of energy-saving and resource-efficiency best practices throughout our teams. At the organisational level, we're deploying new tools to standardise how we report and record our emission data, supporting our mission to be open and transparent about our journey.

From tackling industry challenges to running our sites more efficiently, we're exploring every opportunity to drive sustainability across our operations.

Empowering people

Sustainability is also about caring for the environment and the people who live in it. This is another crucial part of our commitment to being a sustainable organisation.

Much of our work is driven by the goal of improving people's lives. Whether it's wearable medical devices that make life easier for stroke survivors and amputees or game-changing RNA therapeutics, our pharma projects are improving patient outcomes. We also support projects with far-reaching impacts, like refining communication networks to deliver education in remote locations or integrating biosensors into sportswear to optimise performance.

Leading by example is important to us. That's why we're reaching out to our local communities in the North of England and Scotland to maximise our impact.

We're investing in people, creating highly skilled jobs, and nurturing the next generation of innovators through school visits, apprenticeships, and work placements. We're collaborating with universities, government, and professional associations to ensure they have the skills needed to tackle today's and tomorrow's biggest challenges.

We're also unleashing our team's passion and dedication. Last year, our CPI Boost programme helped colleagues direct funding to local initiatives close to their hearts. This year, we took it a step further with 'Giving Back Week,' which saw over 150 employees give up their time to spend a day supporting their local communities. Activities included planting trees, cleaning riverbeds, restoring farms, painting rooms within hospices, and providing IT training to volunteers.

Twenty years ago, CPI was set up to make an impact, and I truly believe we are achieving that goal. Through sustainable innovations, medical breakthroughs, and community support, we take pride in the difference we've made and our ongoing journey to create a better world.



Regional reflection

Place and the power of partnership



Sophie Walton
Director of Strategic Partnerships
CPI

CPI opened its doors on 02 April 2004. Today, our commitment to connecting the dots in the innovation ecosystem remains as strong as ever. Central to CPI's mission is the idea of "connection." For the past 20 years, we've proven that our strategic partnership model works.

We've supported hundreds of companies, helped create thousands of high-skilled jobs, transformed landscapes, and helped unlock billions of pounds of investment for the UK economy. But none of this would have been possible without collaboration.

Strategic partnerships with academia, government, industry, and the investment community have been essential to our success and will be key as we look ahead to the next 20 years.

The power of partnerships

One of the main reasons we value partnerships is because they act as force multipliers. Alone, we can only achieve so much, but together, by aligning multiple organisations and agendas, we can achieve far more than we could in isolation.

That's why CPI is committed to tackling innovation challenges through collaboration. We work with many regional, national, and international public sector and academic networks to enhance the impact of our work with UK businesses.

Our partners share our vision for the future—one driven by innovation and collaboration. We believe that technological advancements can solve society's biggest challenges and drive



economic growth. By pooling our skills, resources, and expertise, we create an environment that nurtures innovation and helps us build toward our future aspirations.

Strategic partnerships in action

We collaborate with a broad spectrum of organisations, from start-ups to multinational corporations, civic bodies, and universities across the UK. While our network is extensive, the greatest benefits have come from sustained collaboration over the long term. These ongoing relationships are what we consider “strategic partnerships.”

Working with select public sector and academic organisations brings clear benefits. Our shared vision ensures that the projects we pursue are strategically aligned and address societal and industrial challenges. Together, we amplify the influence of our organisations, guiding and informing funders and policymakers.

These partnerships also offer immediate practical benefits. They give partners access to funding that may otherwise be out of reach, and our history of successful collaborations builds investor confidence. Our combined resources allow us to deliver greater results. The free flow of knowledge, expertise, and facilities enables us to drive impact more effectively.

A prime example of this is our partnership with Converge, Scotland’s largest company creation programme for the university sector. Together, we’ve ensured that promising spinouts and early-stage companies can access CPI’s ecosystem of innovation support to deliver collaborative R&D and commercial projects.

Place-based partnerships

We work not only with people who share our vision but also with those who share our geography. CPI was originally founded in the North East of England to deliver on the region’s Strategy for Success. Since then, we’ve expanded to operate a network of centres across the North of England and Scotland. Our influence, however, extends across the UK.

Across regions like London, Liverpool, and beyond, we’ve forged place-based partnerships designed to benefit the local communities where we operate. These partnerships enable us to apply our expertise in technically innovative and regionally impactful ways. For example, in North West England, our materials expertise is helping to develop the Centre for Expertise in Advanced Materials and Sustainability (CEAMS) in Greater Manchester.

Through this collaboration, we’ve worked closely with the Greater

Manchester Combined Authority (GMCA) to deliver impactful programmes for local businesses. By steering decision-makers and leveraging national funding, we're ensuring the project has a tangible impact on the region's communities and businesses.

This project represents a model for combining national expertise with local knowledge to drive regional economic growth. By aligning with GMCA's innovation strategy and leveraging Innovate UK's funding, CEAMS is set to become a hub that delivers significant benefits to businesses in Greater Manchester and beyond.

Building great projects for regional benefit

Further north in Glasgow City Region, our pharmaceutical expertise led to the creation of the Medicines Manufacturing Innovation Centre, where partnerships are at the heart of its existence. This centre is a great example of how public-private partnerships can address grand industrial challenges. With academic associates at the University of Strathclyde, industry players like AstraZeneca and GSK, and support from the Scottish and UK Governments, the centre is making significant strides in bringing new medicines to market.

These initiatives, driven by the right mix of expertise, resources, and strategic vision, aim to deliver lasting benefits to society. Beyond

driving innovation, these place-based partnerships help shape the intellectual landscape, filling regional innovation gaps and partnering with the local research base.

Working with local partners can align regional opportunities with the UK's broader innovation needs. Whether through large-scale projects, connecting industry with academia, or aligning innovation strategies with local stakeholders, these partnerships are transforming regions and creating jobs for the future.

Building a better future

As we reflect on CPI's achievements over the past 20 years, we also look forward to the next two decades. Politically, economically, and environmentally, the world around us is changing, and the challenges we face are becoming increasingly complex. Innovation is critical for building a better future for people, places, and the planet.

The discoveries of today are the foundation of tomorrow, and it's essential that we help turn world-changing ideas into commercial realities. Now, more than ever, collaboration is crucial to unlocking the UK's innovation ecosystem. Through the strategic partnerships we've built—and those still in the making—we are confident that we can leave a lasting impact on the communities we serve.





This cutting-edge centre showcases how our region is leading in innovative industries that cut carbon emissions and drive a greener future. By supporting biosciences and healthcare, our funding helps CPI advance technologies, improve food production, and boost health and wellbeing across the UK. This investment not only creates well-paid, sustainable jobs but also strengthens our local economy and attracts new businesses to the area.”



Ben Houchen

| Tees Valley Mayor

Transforming places

We've supported hundreds of companies, helped create thousands of highly-skilled jobs, transformed industrial landscapes, and helped unlock billions for the UK economy. But we didn't achieve this on our own. Strategic partnerships with academia, government, industry and the investment community are central to our success and will continue to play a vital role as we embark on the next 20 years of our journey.

National Biologics
Manufacturing Centre



2014



National Industrial
Biotechnology Facility



2004

2009



National Printable
Electronics Centre



AMIDS
GLASGOW CITY REGION



Central Park
DARLINGTON



NETPark
SEDFIELD



Wilton Centre
REDCAR

2019



National Formulation
Centre



National Healthcare
Photonics Centre



Medicines Manufacturing
Innovation Centre

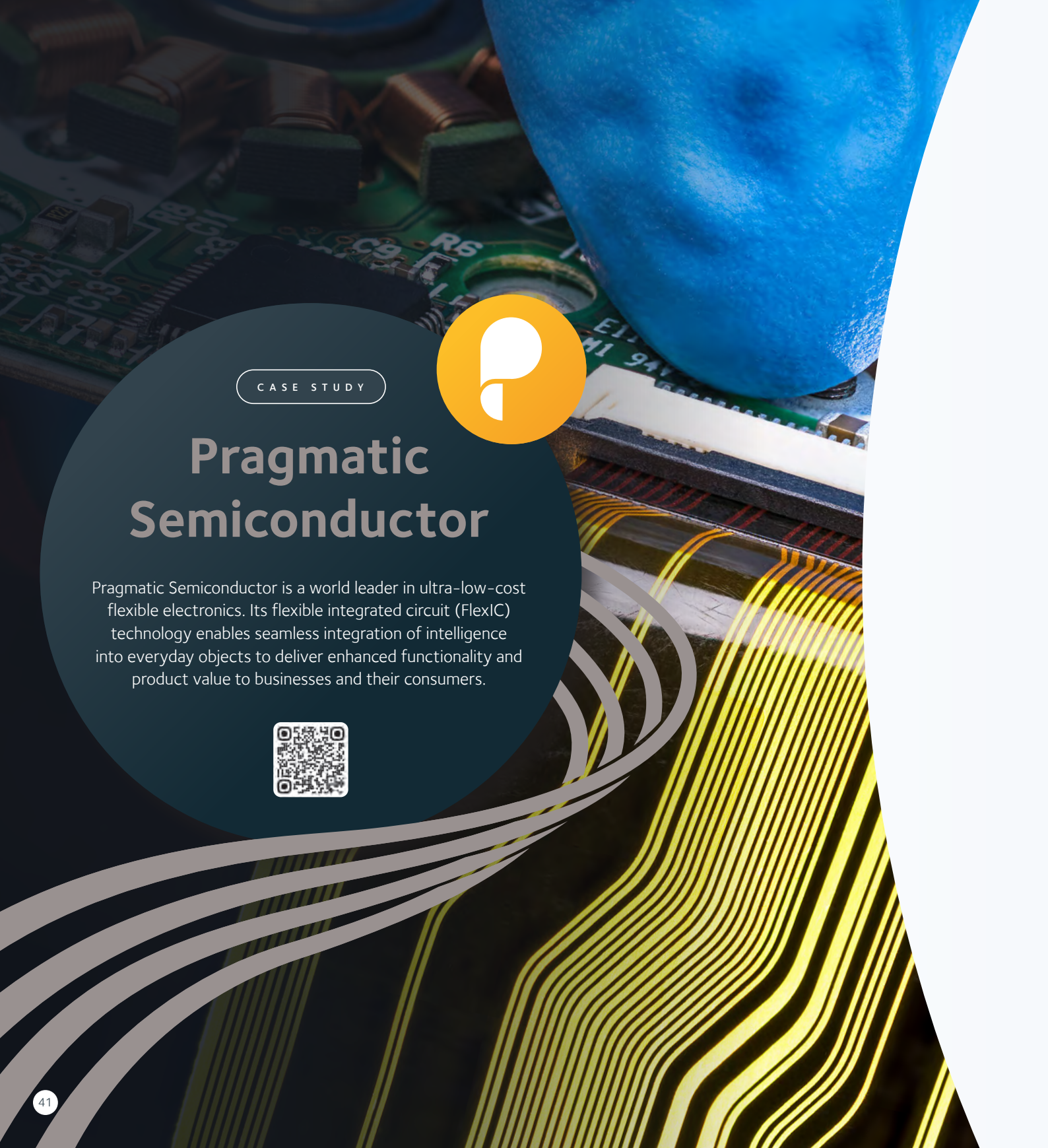


Novel Food
Innovation Centre



RNA Centre
of Excellence

2024



CASE STUDY



Pragmatic Semiconductor

Pragmatic Semiconductor is a world leader in ultra-low-cost flexible electronics. Its flexible integrated circuit (FlexIC) technology enables seamless integration of intelligence into everyday objects to deliver enhanced functionality and product value to businesses and their consumers.



The challenge

Integrated circuits are essential in our modern world, but limitations on the costs and physical properties of traditional, silicon-based circuits risked stalling the next wave of innovation.

As an SME, Pragmatic Semiconductor saw a revolution in the fabrication of semiconductors as essential to creating a smarter, more connected future and drive industry growth. By manufacturing integrated circuits to be thinner, more robust, and more affordable, Pragmatic Semiconductor aimed to make the technology more cost effective for manufacturers to integrate into everyday objects, while reducing the impact of production on the environment.

How we helped

- ➔ Transformed the FlexIC production process into an adaptable and scalable manufacturing model.
- ➔ Advised and supported the adoption of a de-risk approach towards product development.
- ➔ Provided access to resources and facilities, reducing product development time and manufacturing cost.

Achievements

- ✓ Accelerated the process from a lab-based concept to a commercially viable product.
- ✓ Formation of a robust FlexIC production methodology.
- ✓ Improved the dependability and efficiency of the FlexIC manufacturing process.

Impact

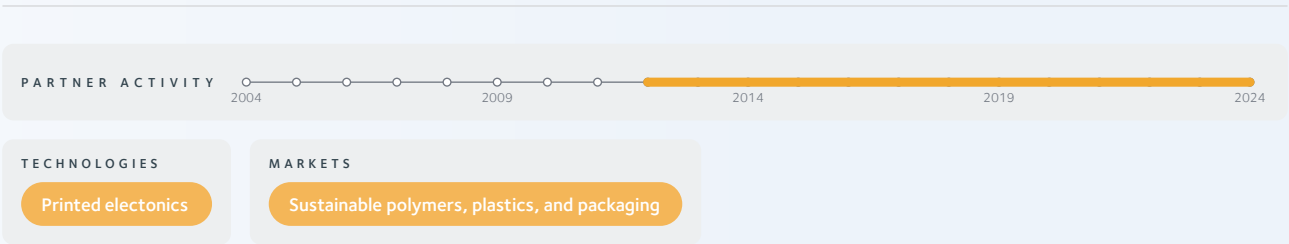
- ⊕ Reduction in production costs.
- ⊕ Significantly lowered environmental impact.
- ⊕ £22 million in private contracts and collaborative grants secured by Pragmatic.
- ⊕ Business success has led to the opening of the UK's largest semiconductor facility in the North East of England.

“CPI’s flexible approach has helped us adapt at each stage as we progressed from lab-scale R&D through to production using our automated FlexLogic® system. Our relationship with CPI has been crucial to Pragmatic’s development and remains a key part of our strategy for the coming years.”



Dr Richard Price

Chief Technology Officer
Pragmatic Semiconductor





stuff4life

CASE STUDY

Stuff4Life

Stuff4Life is a materials circular economy company establishing supply chains and technologies to implement the closed-loop recycling of plastic polymers, particularly those found in clothing and PPE.



The challenge

With 33 million workwear garments sold in the UK each year, a lot of which are made from fossil fuel-based polyester, and 90% of which end up in landfill or incinerated, Stuff4Life saw the opportunity for its novel recycling process developed with Teesside University. For the small innovation company, the financial outlay and expertise required to scale the process successfully for the commercial market was a challenge. This project was part of our European Regional Development Fund (ERDF) PROSPECT programme.

How we helped

- ➔ Replicated and improved Stuff4Life's existing lab-scale process.
- ➔ Scale-up of Stuff4Life's lab-scale repolymerisation to pilot scale.
- ➔ Techno-economic analysis for commercial-scale production.
- ➔ Process support for Arco-Stuff4Life commercial scale-up.

Achievements

- ✔ Demonstration of textile breakdown process at 10 kg pilot scale.

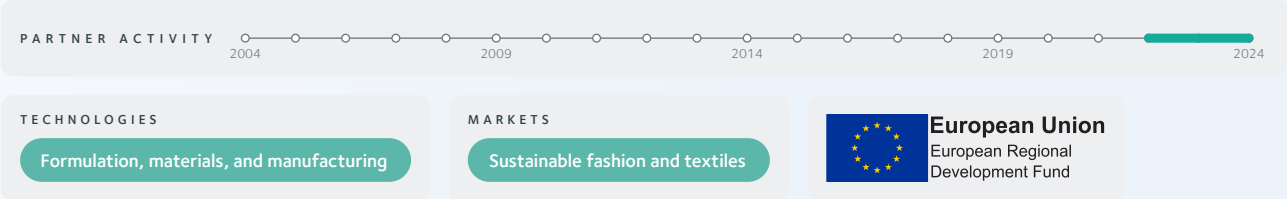
Impact

- ⊕ Project was key to Arco's decision to invest in Stuff4Life and bring the process closer to commercialisation in Teesside.
- ⊕ Follow-on plans for a full-scale PET/polyester recycling plant.
- ⊕ 59% energy saving compared with virgin polyester.

“We are really excited about the next stage of our Stuff4Life journey. Our ultimate goal remains the same, but also to make the next generation of workwear last even longer, perform even better and be more recyclable when its job is done. This can make a real difference delivering not just a circular economy for critical materials but decarbonising industrial processes and delivering even better outcomes for all.”



John Twitchen
Director and Co-Founder
Stuff4Life





20 years of invigorating local communities



Amy Smith
Chief People Officer
CPI

For the past two decades, CPI has been at the forefront of technological innovation and advancement in the UK. Our impact is multifaceted: we use our collective expertise to empower people, strengthen communities, and protect our environment. Our dual focus on innovation and community enables us to tackle global challenges and provide tangible benefits and support to the communities around us.

Catalysing positive change for communities, society, and the environment

From creating jobs and supporting local community projects to investing in STEM outreach programmes and empowering individuals through education and training, CPI connects the dots between our people and our communities in a myriad of ways. What underpins it all is our commitment to people, places, and our planet. Through

CPI's ESG Framework we aim to develop and support more initiatives that will deliver impact into the world.

Apprenticeships at CPI

CPI has been offering apprenticeships for over 10 years, seeding talent out into the wider industry and, in many cases, back into CPI. Currently, 11% of our workforce are in early career roles, such as apprenticeships, industrial placements or graduate roles. This year, we've been awarded Platinum accredited membership via the 5% Club's 2023 – 24 Employer Audit Scheme. This award recognises our significant contribution to the continued development of all our Employees through our "earn & learn" schemes.

Apprenticeship opportunities at CPI are advertised and available to both new entrants and current employees (regardless of age, role or length of service) to support personal development, learn new skills and sometimes re-skill. Apprentices can begin at Level 3 (BTEC) and continue right up to Level 7, the equivalent of a Master's degree, if desired. Some of our team members have even taken on the Senior Leadership apprenticeship, which is equivalent to an MBA. All our apprentices can reap the benefits of having access to a huge wealth of knowledge from our mentors and experts within CPI. As their



individual careers flourish and grow, this important knowledge is shared amongst the innovation ecosystem and greatly benefits the industry as a whole.

STEM outreach

In some areas of the North East, there are 5 generations of unemployment. CPI's STEM outreach programme aims to change this by inspiring future talent to embark on a career in STEM. The potential impact that our outreach will have in the coming years is huge. In fact, since becoming STEM ambassadors in 2016, 100 of our employees have volunteered 776 hours across 178 a number of different activities in their local area and around CPI.

Through our STEM outreach programme, we aim to engage with and inspire local communities, raise aspirations and increase the future talent pipeline. By showing school-aged children what a career in STEM can look like and the types of people that work in those industries, we're actively removing barriers to entry and giving young people relatable role models.

While the key benefits of this programme are primarily with the children, the advantages are two-fold. Graduates and apprentices at CPI take part in a structured year-long Professional Skills Development Programme, of which STEM outreach can be a part of. By undertaking the outreach, our employees are developing their own professional skills, growing in their roles and achieving the goals set out in the programme.

CPI Boost

Part of CPI's Environmental, Social and Governance (ESG) activity is about making a difference to our local communities, outside of our day-to-day work. It's important to us to deliver social value to the communities in the North East, North West and Scotland where we live, work and play.

The CPI Boost Programme was pioneered in July 2023 by our Director of Impact, Louise Barker, as a way to give back to our communities and use our influence for good. The Boost Programme encourages our employees to submit a request to support local community initiatives that meet both CPI's values and the UN Sustainability Development Goals. If the submission is successful, funding is made available to support a certain activity for the community initiative, which has so far included purchasing gardening equipment for a community centre, sponsorship of shirts for a girls' football team and equipment for a community litter pick.

What does the future look like?

Our vision for the future is simple. We'll continue to create positive impacts on both society and the environment: pioneering technological advancements in the lab and delivering meaningful social value to our local communities.

As CPI heads into a third decade, our focus and dedication to creating long-lasting impact remains unchanged.

20 for 20: Giving back week

Celebrating two decades by giving back



Becky Fields

Corporate Communications Manager
CPI

In honour of CPI's 20th anniversary, over 180 of our incredible people dedicated their time to support local charities across the North East and Scotland, making a positive difference in our communities.

To mark 20 years of innovation and impact, we invited our people to participate in our "Giving Back Week," an initiative allowing employees to dedicate their time to meaningful volunteer work in the North East and Scotland. Over 180 CPI team members volunteered during this week-long celebration, embodying the spirit of giving back and demonstrating a profound commitment to the communities where we have thrived over the past 20 years.

The range of volunteer activities highlighted CPI's broad reach across various sectors, from environmental conservation to community welfare. On the environmental front, teams collaborated with the Tees River Trust to clear debris and beautify the river, joined the Woodland Trust in tree planting efforts, and conducted a beach clean-up in Redcar to preserve the local coastline. Additionally, groups worked with Durham Wildlife Trust, helping to protect and enhance local habitats critical to the area's biodiversity.

We also rolled up our sleeves for local charities and support services to make a tangible difference. Volunteers assisted at Women's West End Farm, maintaining the community space essential to the well-being and empowerment of local women. Teams at St. Cuthbert's took on hands-on tasks like painting and updating IT systems, creating a refreshed and functional environment for residents. We also assisted Feeding Families with packing and distributing food parcels, helping ease the burden for families in need. The People's Kitchen saw us helping prepare and serve meals, a critical service for vulnerable members of the community in Newcastle.

Health-focused contributions included donations and vital support for the Great North Air Ambulance, while some, including our CEO Frank Millar, participated in a 14-mile sponsored walk along Hadrian's Wall to fundraise for the Children's Heart Unit Fund. Many of our people also donated blood, bolstering the NHS Blood and Scotblood donations drive.

This Giving Back Week was a testament to CPI's values and dedication to the people and places that have supported our journey. Thanks to each volunteer, we have strengthened community ties and made a lasting impact, reinforcing our commitment to a sustainable and compassionate future.





CPI's 20th anniversary roadshow

A celebration of innovation across the North East and Scotland



Helen Anderson

Internal Comms and Employer Brand Manager
CPI

CPI marked its 20th anniversary with a series of Roadshow events across the North East of England and Scotland, celebrating two decades of innovation and collaboration. These events brought together our incredible people, stakeholders, and partners to reflect on CPI's journey, share achievements, and look ahead to the future of innovation.

A key highlight of the Roadshow was the speeches delivered by notable leaders at each event, emphasising the impact of CPI's work on innovation and economic growth. Jennie Younger, Chair of CPI's Board, addressed attendees in Glasgow, while Councillor Amanda Hopgood, Leader of Durham County Council, delivered remarks in Sedgefield, acknowledging the contributions of CPI and its partners. Closing the celebrations in Darlington, CPI CEO Frank Millar and Innovate UK CEO Indro Mukerjee highlighted the importance of collaboration in driving future innovation.

Our 20th Anniversary coincided with NETPark's 20th anniversary, making the Sedgefield event particularly special. The dual celebration recognised NETPark's significant role in fostering cutting-edge

technologies and supporting regional growth alongside CPI's achievements. The event highlighted the strong partnership between CPI and NETPark, showcasing their shared vision for advancing innovation and sustainability.

While the speeches underscored the importance of partnerships, the events themselves fostered community spirit and connection. Activities, local music, and diverse food options created a celebratory atmosphere, allowing attendees to connect informally and enjoy the milestones together. The Roadshow embodied CPI's commitment to not only advancing technology but also building relationships that will shape the next 20 years of innovation.

A heartfelt thank you goes to everyone who participated in these celebrations. Together, we honour two decades of achievements and look forward to an even brighter future.





CASE STUDY



Touchlight Genetics

Touchlight Genetics is a biotechnology company operating as a successful CDMO in the UK using next-generation, cell-free methods to produce synthetic DNA (termed dbDNA™), bringing breakthrough vaccines and cancer treatments closer to market.



The challenge

The demand for high-quality DNA has grown considerably as a critical starting material or API in advanced therapies with developments spurred, in part, by the COVID-19 pandemic where DNA formed a vital part of coronavirus diagnostics and vaccine production.

Touchlight Genetics - in its effort to reduce the costs, timescales, and safety concerns traditionally associated with methods of E.coli fermentation manufacturing - required support and expertise to aid in establishing its dbDNA™ production platform, with a focus on the scale-up of its cell-free DNA manufacturing component.

How we helped

- ➔ Support the rapid and robust scale-up of the dbDNA™ process.
- ➔ Identification of opportunities for funding and collaborative partnerships that align with technical and commercial goals.
- ➔ Flexible access to equipment and technical expertise necessary for accelerating synthetic DNA process development.
- ➔ Consultancy and evaluation of future technology applications.

Achievements

- ✓ dbDNA™ GMP manufacturing established in the UK.
- ✓ Expanded manufacturing footprint in the UK.
- ✓ dbDNA™ platform supports the development of a range of different therapeutic products.
- ✓ Development pathways identified for further applications.

Impact

- ⊕ Proof-of-concept demonstrates broad biologics applications to bring genetic medicines to market 5x faster than traditional approaches.
- ⊕ Opened pathways to cell-free technology exploration in revolutionising large molecule manufacturing.
- ⊕ Know-how applied to UK Government Vaccine Taskforce and continues to inform research on DNA and RNA vaccines.
- ⊕ Touchlight Genetics has grown to over 100 employees and secured £147 million in private investment for further growth within the biosynthetics field.

“CPI has the skill sets and equipment not readily available anywhere else. By using CPI, we have saved many months of process development.”



Dr Jill Makin
Chief Technology Officer
Touchlight Genetics



Looking ahead to the next 20 years



Jennie Younger

Non-Executive Chairman
CPI

As we reflect on 20 years of achievements and our impact in 2023–2024, this Annual Review highlights the significant strides CPI has made in delivering innovations that benefit industry and society. For 20 years, CPI has been driven by a clear purpose—to catalyse innovation, connect the dots across the ecosystem, and turn ideas into real-world impact.

This commitment to enabling industry, academia, and government to collaborate has shaped our journey and will continue to guide our future efforts.

This year has been pivotal for CPI in advancing next-generation medicines. We launched the RNA Centre of Excellence and Training Academy in Darlington to accelerate RNA-based vaccine and therapy development while addressing critical skills gaps. In Scotland, we secured funding for the Oligonucleotide Manufacturing Innovation Centre, which will drive scalable, sustainable production of advanced genetic medicines. These centres will enhance UK manufacturing capabilities, speed up patient access to life-changing treatments, and strengthen the country's position in life sciences innovation.

Equally important is CPI's lasting impact on local communities over the past 20 years. In the North East, we've transformed former industrial sites into hubs of innovation. A prime example is NETPark in County Durham. Once a derelict area, it has been revitalised into a leading science and technology park. As one of

the initial anchor tenants, CPI has been instrumental in developing NETPark's infrastructure and nurturing an ecosystem that attracts high-tech companies. Our collaboration has led to the creation of advanced facilities, supported numerous businesses in securing significant private investment, and contributed to regional economic regeneration.

Beyond NETPark, CPI's impact spans the UK. Through our expansions into Scotland, Liverpool, and Newcastle, we've not only nurtured world-class technology but also stimulated real economic growth, creating high-value jobs and building local skills. In Scotland, our Medicines Manufacturing Innovation Centre is strengthening the country's life sciences sector, attracting investment, and positioning the UK as a leader in advanced therapeutics. In the North West, we are working with local stakeholders to develop new materials technologies, which will have far-reaching applications across industries such as sustainable fashion and electronics.

Looking ahead, CPI remains committed to working with our partners to tackle the most pressing challenges in science and technology. By fostering collaboration and enabling cutting-edge innovation, we will continue to support the development of solutions that drive meaningful impact for industry and society.

On behalf of the Board, I would like to thank everyone at CPI for their dedication and contributions over the past year. Their expertise and commitment have enabled us to continue building a stronger, more resilient innovation ecosystem—one that delivers real benefits for businesses, communities, and the wider economy.

Let's innovate together.



Join companies making an impact with CPI





Discover our world-leading capabilities and
cross-industry expertise at www.uk-cpi.com



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