

Another step on our journey

Financial Year: 2008 - 2009











Nigel J. Perry Chief Executive Officer

Foreword

Here at CPI we have been successful in building a multi-disciplinary team which cross the boundaries between invention and delivery by combining engineering, process development and systems skills. We have been encouraged by the enthusiasm with which our growing team has embraced change and driven progress.

We are delighted to report another very strong and what has been a very exciting year for the Centre for Process Innovation (CPI). During 2008–09, we not only consolidated the successes of the previous four years by bringing several key developments to fruition, but we also launched a number of high potential initiatives that will carry us forward through 2010 and beyond.

Over the previous twelve months, we have cemented our position as a lead driver of innovation for the process industry and we have made a number of significant steps on our journey to realise our vision, to create a world class innovation centre supporting the process industries.

Through our approach which is unique to the UK, we build and own assets that bring together companies, universities, public sector funds and technology expertise to develop new products and processes for the process industries to prove concepts, develop technology and demonstrate it to reduce scale up risks.

We have established two CPI business units, the Sustainable Processing and Advanced Manufacturing Centre 'SUSPROC' and the Printable Electronics Technology Centre 'PETEC' respectively. Both of which have received significant expansion investment which was announced in 2009 by the Department of Business, Innovation and Skills. This is fantastic news and underlines the outstanding success of CPI and One North East's investment in the Strategy for Success Initiative.

We are eager to develop more projects, grow our revenues from the private sector and increase our holdings in technology businesses. As a result of the continued strength of our team, we are confident of our ability to achieve these goals.

The planned expansions of our two national technology centres confirm our position at the cutting edge of innovative UK manufacturing.

The groundbreaking research and development work that has been taking place in PETEC is fast approaching a stage where it can become an area of major industrial growth, job creation for North East England and creation of a competitive sector for the UK.

We are excited about the scope for ever stronger collaborations across our technology areas. Another key evolutionary step has been the development of services focused on the private sector to complement our work in establishing projects. The profitable pursuit of private sector clients and partners will be a vital driver of our ability to become self-sustaining in the future.

Bob Coxon, OBE, Chairman Nigel J. Perry, Chief Executive Officer



Highlights and Achievements

Following four years of strong growth, 2008/09 was a period of intense activity which saw a number of major projects come to fruition as well as several new initiatives that offer significant potential for the future.

At year five we are between year six and ten on the original business plan – a fantastic achievement!

	Original Business Plan	Achieved
FTE Jobs – protected and new	650	3255
Technology ventures established	5	7
SME linkages established	10	411
New Products and Processes	10	>30
New Patents Filed	6	14
Private Sector Leveraged Investment	£50m	£473m





CPI's Printable Electronics Technology Centre

With the international launch of CPI's Printable Electronics Technology Centre (PETEC) and a £20m expansion plan announced, 2008-09 has been a remarkable year.

PETEC, a CPI business unit, has become established as a design, development and prototyping facility. It provides help to bring new printable electronics products to market quickly by offering facilities and expertise that are rarely available in-house, therefore reducing the client's level and risk of capital investment.

Officially opened by Lord Mandelson in March 2009, PETEC has already attracted customers from the UK and internationally, from start-ups and SME's to multinational blue chip organisations.

The UK has a well established competence in research in printable electronics however PETEC's focus is in accelerating the commercialisation of these products through the production processes and solving technology issues that companies face in developing new products. PETEC offers experience, knowledge, and the appropriate infrastructure to support customers in this emerging global market.

CPI aims to secure the UK's manufacturing reputation in this field by training the next generation of engineers and providing a valuable contribution to the UK economy.





The expansion announcement from the Department for Business, Innovation and Skills in July 2009 confirmed PETEC's position as the national base for the emerging printable electronics sector, the global market for which is forecast to grow to £15bn by 2015 and £125bn by 2025.

In the next four years it is estimated that this investment will stimulate the creation of up to 250 jobs in the North East and up to 1,500 jobs nationally.

The funding will help to significantly enhance the open access product development facilities at PETEC with the introduction of new equipment capable of prototyping applications in Displays, Photovoltaics and Lighting.

The new investment will also result in:

- 500m² of new hi-tech equipment space for large-area application and production of pilot product manufacturing
- The development of new applications and knowledge which will attract new companies to the UK
- New private sector investment into novel lighting and solar energy harvesting applications
- Key technology applications in wide-area displays, photovoltaic generation, novel lighting and smart packaging by stimulating collaborations with new companies and linking with academia
- The development of a regional and UK-wide display, lighting and photovoltaic supply chain.

PETEC is located across two sites, PETEC NETPark in Sedgefield, and PETEC Wilton on Teesside.



CPI's Sustainable Processing Centre

CPI has brought together leading experts in sustainable processing and manufacturing to establish SUSPROC, the UK's Sustainable Processing Centre.

SUSPROC, a CPI business unit, is a unique facility that can convert ideas to commercial sustainable processes. CPI has made large investments in low carbon energy and innovative bio and chemical process technologies. Through its Sustainable Processing Centre, CPI has created open access, development and pilot scale facilities and services which are available to both research organisations and commercial customers.

The Centre, located at CPI's head office at the Wilton Centre, Teesside, uniquely placed to offer and provide a range of processes and solutions in the following areas:

- Advanced manufacturing
- Chemical processing
- Industrial biotechnology & processing
- Low carbon energy
- Process engineering, process modelling & strategic consultancy





In June 2009, The Department for Business Innovation & Skills announced a £12 million expansion investment for industrial biotechnology at CPI. The facility will build on the existing capabilities at CPI including SUSPROC's National Industrial Biotechnology Facility (NIBF) and will cement the Tees Valley's leading position in this sector.

The NIBF, established by CPI in 2006, has to date been providing vital testing facilities for new industrial biotechnology products and processes. The expansion will provide clients and partners with the opportunity to trial their products and processes at a larger scale to ensure the future development of industrial biotechnology in the UK.

Being able to trial new materials on a large scale will play a vital role as the industry begins to move away from petrochemicals and into the new low-carbon age.

The new national facilities will help to identify and deliver new processes, materials and products; and help the translation of novel ideas into tangible outputs within a UK environment best placed to conduct innovative approaches to industrial biotechnology.

The facilities will be tailored to the development and testing of the production of alcohols, biodiesel, low-volume speciality and higher value chemicals from renewable biomass feedstocks and through biocatalysis.

CPI Economic Support Projects

CPI is creating significant value nationally for the North East region through managing and facilitating a number of Economic Support Projects, attracting inward investment from both the public and private sectors.

As a major employer and creator of new jobs in the region (3,255 FTE protected and new to date), CPI has successfully established a number of new technology start-ups and developed collaborative projects which have utilised the region's expertise and created a strong North East supply chain.



As the drive to use our resources efficiently gathers pace around the world, the UK faces challenging environmental targets which will require new approaches, innovative technologies and major investment.

Renew at CPI is tasked with the facilitation and delivery of commercial energy and environmental technology projects across the North East of England and is endeavouring to place the region at the forefront of the UK's low carbon and sustainable energy drive.

Providing the vital link in the chain that takes low carbon energy and environmental technologies from development to the marketplace, Renew provides strategic support to a wide range of businesses looking to maximise the economic opportunities and make carbon reductions achievable from the application of these technologies.

www.uk-cpi.com/renew



Enterprise Europe Network - North East

The regional division of the 'European Enterprise Network,' managed by CPI, helps companies across the North East build new partnerships. develop new products and services and secure finance for R&D and innovation.

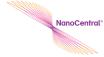
www.een-northeast.co.uk



NanoKTN

Providing access to the UK's world class micro and nano technology sector, the Nanotechnology KTN facilitates the transfer of knowledge and experience between industry and research, offering companies dealing in small-scale technology access to information on new processes, patents and funding as well as keeping up-to-date with industry regulation.

www.nanoktn.com



NanoCentral ®

NanoCentral at CPI is driving the safe, beneficial and profitable commercialisation of nanomaterials. We are an alliance of organisations capable of providing you access to a broad range of leading edge technologies, equipment and services.

NanoCentral uniquely provides existing and potential manufacturers or users of nanomaterials single point access to an integrated and comprehensive set of nano-related capabilities that encompass:

- synthesis
- dispersion, functionalisation and formulation
- application development
- characterisation
- · safety, health and environmental capabilities.

www.nanocentral.eu



Innovation Accelerator

The Innovation Accelerator has been set up to create and develop new businesses and to move them through their development phase faster in order to create more wealth for the North East of England.

State of the art incubator facility: The fully integrated incubator facility will cover an area of 1,000 m² and contains ten 50 m² laboratory/pilot plant pods, communal laboratories, open plan offices, meeting rooms, reception and general facilities; a self contained, stand alone home for new businesses which is highly equipped in order to facilitate "plug and play" and to minimise costs. The incubator facility is due to be completed Dec 2010.

Specialist support team: The market sector specialist team is an extra resource for new businesses and will assist with enhancing market offerings through giving a greater understanding of the companies competitive position, improving business and marketing plans and providing additional management team resource.

www.innovation-accelerator.co.uk



North East Sustainable Resource Board

The North East Sustainable Resources Board has been established to help the region improve its recycling and reuse capability and position it as a leader in waste to resources management.

Comprising senior figures from across the public and private sectors, the board operates under a Public Charter and will play a leading role influencing waste collection and recycling practices, minimising the volume sent to landfill and managing used resources.

Secretariat support for the Board is provided by Renew, a business support project within the Centre for Process Innovation.

www.nesrb.org.uk

CPI Enterprises

CPI's growing portfolio of businesses is proof of our successful commercialisation of key innovations. Formed by spin out and joint venture, these standalone businesses have the benefits of world-class innovation and sound business guidance to help them succeed and grow.



Anaerobic Energy

Anaerobic Energy develops, installs and operates anaerobic digestion systems in closed loop systems. The company is currently seeking funds for establishment projects and is developing a range of commercial business opportunities.

The company is wholly owned.

www.anaerobic-energy.com



AssuredNano™

AssuredNano™ is the premier Safety, Health and Environment (SHE) accreditation scheme for organisations producing nanomaterials, nano-enabled products and users of nanotechnology in general.

The company is wholly owned.

www.assurednano.eu



Biosource

Novel anaerobic digestion process protected by patents. Currently seeking next level of funding.

The company is wholly owned.

www.biosource-wales.com



Fuel Cell Service Solutions

Fuel Cell Service Solutions supplies fuel cell products and services to a range of markets.

Fuel Cell Service Solutions is a joint venture.

www.fcssolutions.co.uk



Nuformix

Nuformix manufactures nano scale co-crystals for the high value chemical and pharmaceutical markets.

CPI owns a 23% share in Nuformix.

www.nuformix.com

POLY**PHOTONIX**

PolyPhotonix

PolyPhotonix is developing novel manufacturing processes for the production of unique organic light emitting diode (OLED) lighting systems. By working with architects, product designers, lighting designers, artists and the creative industries, Polyphotonix aims to re-invent the way we use light by providing a low carbon energy, efficient lighting solution.

CPI owns a majority stake in Polyphotonix.

www.polyphotonix.com



Primary Dispersions

Primary Dispersions manufactures dispersions of nano materials for subsequent processing.

The company is wholly owned.

www.primarydispersions.biz



Finances

	2006-07	2007-08	2008-09
Sales (£m)	0.2m	1.2m	0.8m
Grants (£m)	8.1m	8.7m	10.9m
Fixed assets	7.7m	12.7m	17.5m
Employees	52	74	88
Businesses created	n/a	23	20

Financial year 1st April 2008 – 31st March 2009

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