

Northern Way & printed electronics

16th March 2011

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Digital Sector Champion
Yorkshire Forward



A unique collaboration

- The Northern Way was a unique initiative, bringing together partners across North of England to work together to improve the economic performance of the North, and re-balance the UK's economy.
 - Its aim was to influence policy and delivery across the North, to join up thinking and encourage collaboration.
 - We worked with regional development agencies and local enterprise partnerships, local and central government, business and universities.
 - Our focus was on those issues such as transport, new energy, business investment and innovation where the North needs to work across boundaries.
 - We have added value through economic research and policy development, influencing national policy, and by facilitating collaboration and joint investment across the North.

The Partners

- The Northern Way was established as a partnership led by the three northern Regional Development Agencies:
 - [Northwest Regional Development Agency](#)
 - [One North East](#)
 - [Yorkshire Forward](#)
- **City Regions**
- The Northern Way Growth Strategy identified the development of the city regions as a key element in securing greater prosperity of the North. The city regions are:
 - [Liverpool](#)
 - [Central Lancashire](#)
 - [Manchester](#)
 - [Sheffield](#)
 - [Leeds](#)
 - [Hull and Humber Ports](#)
 - [Tees Valley](#)
 - [Tyne and Wear.](#)

The future

* RDA Transition & Closure

- * As part of the RDAs transition and closure in March 2012, funding for The Northern Way will cease on 31st March 2011.
- * However we have created a number of legacies; particularly in printed electronics.

The printed electronics project background

- * Concept in 2008
 - * The Northern Way identified printed electronics as a very rapidly growing global industry with pertinent capability in all areas of the North of England.
 - * The global market for printed electronics is currently estimated to be around \$1bn but growing very rapidly, reaching \$30b in 2015.

The printed electronics project background

- * The production of printed electronic devices requires a mastery of a range of technologies; materials, substrates and manufacturing must all come together make a device. There will be a broad supply chain of technologies and materials that need to be integrated to make a device.

The printed electronics project background

- The Printed Electronics Technology Centre, namely PETEC, in Sedgefield (County Durham) is a new world class facility capable of doing this.
- The North of England's universities have world class research in most of the technologies needed.
 - For example:
 - University of Manchester – materials
 - University of Liverpool – design of circuits
 - University of Leeds – printing technology
- The leading supplier of substrates, DuPont Teijin Films is based in the North East.
- There are many experienced chemical firms who are capable of making electronic materials
- The region has an established printing industry.
- Further and very importantly, there are businesses that are hungry to design and use printed electronic devices.
- Our consultations have shown that they are enthusiastic about participating in a printed electronics program.

PHS Consulting Limited

The printed electronics project the structure

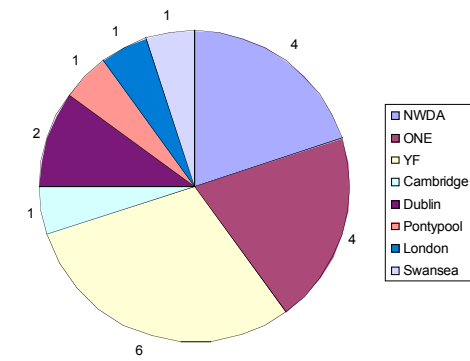
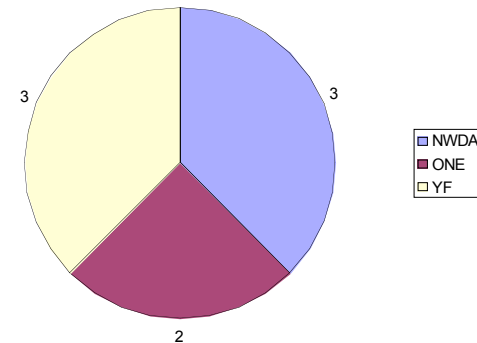
- * In March 2009 we got the go ahead and the team started to build the project for real.
- * Design and Formulation of novel OSC molecules
- * Scale up and Formulation Development
- * Investigate Substrates
- * Demonstrator fabrication
- * Competition

The printed electronics project the competition

- * The larger part of the project engaged identified universities and companies in activities important for the development of printed electronics in the North of England
- * The competition aimed to engage organisations who had little or no experience of printed electronics to produce a prototype product

The printed electronics project the competition

- * We had 17 initial applications
- * This reduced to 11 at stage 2 of process
- * 8 were given the go ahead
- * The 8 projects involved 20 organisations.



The future of the printed electronics project

- We have helped start an industry in the North of England, it is as yet small but growing.
 - The Technology Strategy Board(TSB) – followed our competition with one of their own.
 - The TSB will introduce a “Grants for R&D” scheme (single company R&D) from April 2011
 - The TSB is planning to announce a "Technology Inspired Collaborative R&D" competition in Autumn 2011. PE will be a focus area.
 - The TSB is leading an OLAE+ proposal involving 7 countries with a budget of €6M (TSB + EC) for UK organisations. Details in June.

Dr Ric Allott and the photonic and printed electronics Knowledge Centre are championing the activity into the future . <https://ktn.innovateuk.org/web/photronics-and-plastic-electronics>

The printed electronics project

- * Let me hand over to the project team to have them tell the details of the project.