

'Doing' knowledge exchange: the experience of creating the North East knowledge economy

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Overview

- 1-The knowledge economy
- 2-The region
- 3-The policy background
- 4- 'Doing' Knowledge Exchange? The evolution of Knowledge Networks
- 5- The experience of knowledge exchange- looking for explanatory factors
- 6- Summary-Creating a Knowledge Economy

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1- Creating a knowledge economy

- 'Knowledge economy': the creation of wealth through production & circulation of knowledge- than tangible goods
- Derived from examples of regions with high levels of technology, networking & prosperity, e.g. Silicon Valley, Boston 128, 3rd Italy, Baden-W' berg.

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Regional development discourse

Concurrent themes:

- *Knowledge creation and its exchange* as the method for economies to remain flexible and overcome territorial 'lock-in'
- *Regions* as the natural organisational scale for knowledge reproduction & exchange

'Sub-themes'

- Universities as the engines of knowledge growth
- Proximity as facilitator of knowledge exchange
- Policymakers supporting business clusters/sectors

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2- The NE region

- Bottom of regional productivity tables in UK- despite 40 years of policy intervention
- But 'Knowledge' seen by policy makers as the new driver for the regional economy

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3- North East Policy

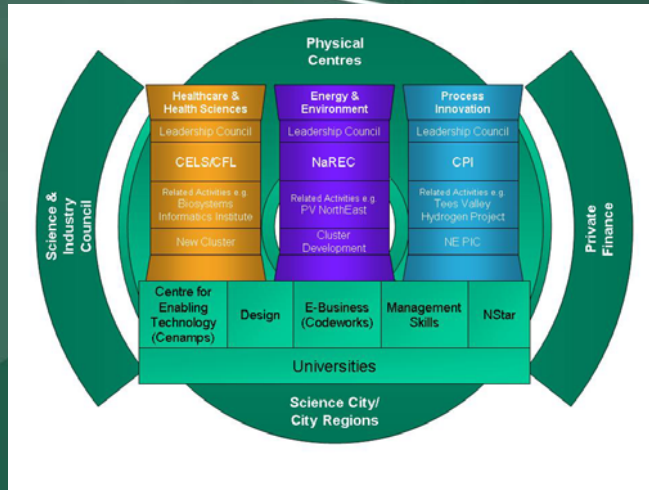
- Strategy for Success launched in 2001 in response to a assessment of region's sectoral strengths.
- Established 5 technology intermediaries with public money/but privately run
- A 'filter' for Knowledge into local business clusters



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Revised Policy

- In 2003 the strategy was revised to concentrate on 'pillars'
- Continued to look for the high tech, propulsive, spin outs



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4- The evolution of a network

Methodology- Part 1

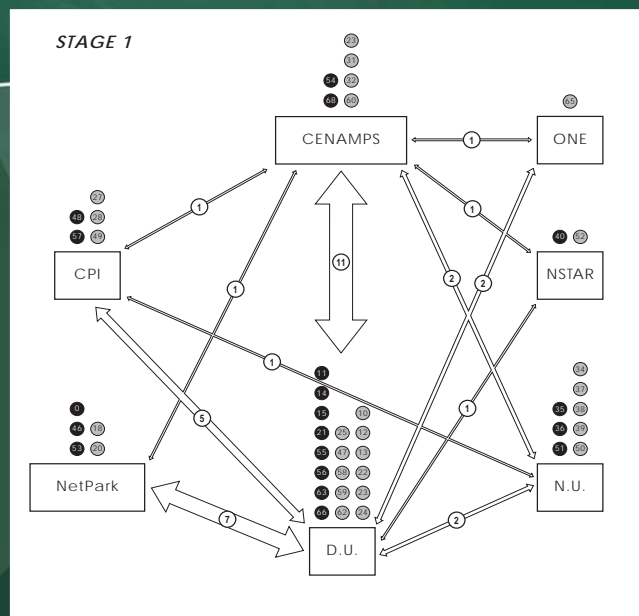
- Mapped networks by on-line bi-annual survey of selected participants from Strategy for Success e.g. working at the cutting edge of technology development & those who commercialise it
- To measure the growing level of interaction between key members of the academic & business communities

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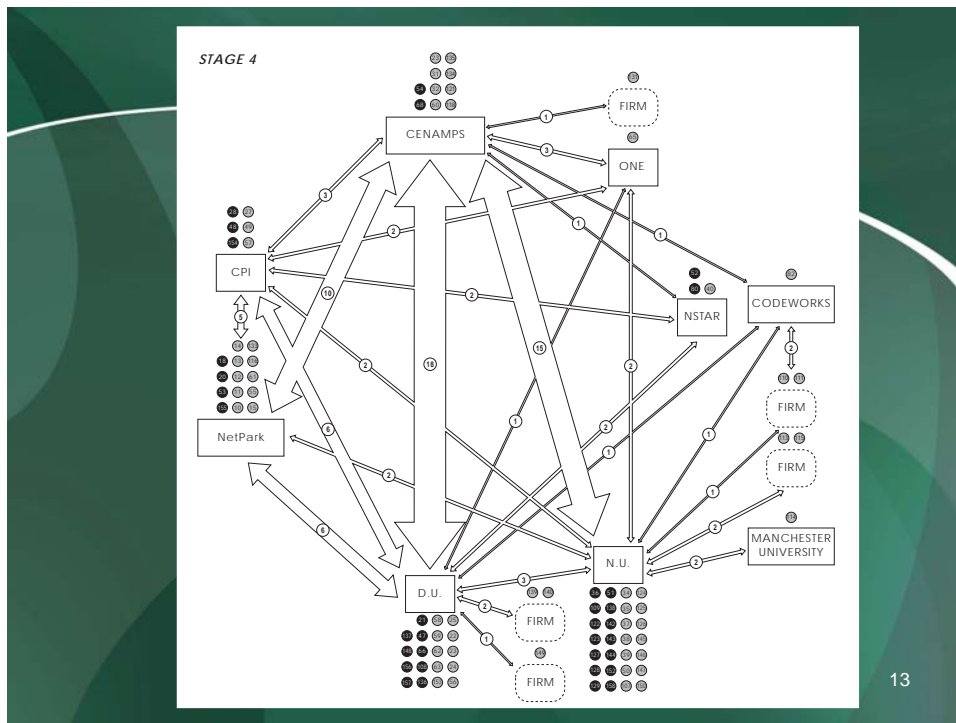
The evolution of a network

- Organisations in the Network
 - Research Universities: Newcastle & Durham
 - Intermediaries: Centres of Excellence: for Process Industries [CPI] & Nanotechnology [CENAMPS]
 - Others: Technology Park, Venture Capital Funder & RDA, Firms & other Universities & CoEs.

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The evolution of a network

- Since inception of Strategy for Success, exchanges between Centres of Excellence [CoE] and Universities *have* evolved into a deeper and wider sets of interactions that did not exist previously.
- BUT- Full extent of these interactions or yet to be fully appreciated but the 'doing' or the experience of the interactions can be explored

5- Experiences of knowledge exchange

Methodology- Part 2

- In-depth interviews of government, academic and industry leaders
- Investigating their experience of exchanging knowledge in the NE
- Leading us to distill some factors in Knowledge Exchange.....?
 - Individual- Organisational- Structural

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Experiences of knowledge exchange

Possible factors in KE?

- Cognitive systems
 - Although ICTs have made exchange easier- barriers still exist to communication....

"the other thing with universities, they are incredibly bad at talking so they don't know what anybody is doing, even within Durham University, let alone other departments with other universities" (Technology Transfer Manager, Durham University)

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Experiences of knowledge exchange

- Individual competencies

- A few key players emerged as being instrumental in the exchange of knowledge- seemed to exhibit an combined ability to converse with a range of groups as well see the potential of ideas.....

"some people just seem really good at talking to academics and the business world" (Fund Manager)

"[Prof. X's] real strength is he crosses the boundaries, I mean he's a highly respected academic as well but also has the experience of taking this physics research and turning into a successful business" (Business Development Manager)

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Experiences of knowledge exchange

- Motivation & incentives

- Academics are highly motivated to create and exchange knowledge, but for different reasons than for commercial gain- which is often at odds with the business world and RDA desire to create jobs.....

"It's a personal motivation in a sense [yet] academics are just as highly motivated and focused as businessmen but its just entirely for different ends" (Business Development/Technology Transfer Manager)

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Experiences of knowledge exchange

- Institutional cultures

- Business culture is 'copyright' while academia is 'copyleft'- there is a tension between the need to share knowledge at the risk of losing it to a competitor.....

"in academia it's a gift economy, I mean these guys give information away for free, and our 'academic consultant' can't seem to draw the distinction between the fact that if, we're doing something for the business we don't want to give it away, we need to make money from that know how, that knowledge, that expertise and they want to publish everything" (Potential Spin Out Company, CEO & Researcher).

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Experiences of knowledge exchange

- Technological/Industrial cultures

- The north east is strongly influenced by its heavy industrial heritage- as industry contracted, so did mechanisms for knowledge exchange and were not replaced to the extent as before. While these networks were destroyed some remnants exist.....

"I know people that work in twelve different chemical companies... (but) it still means we can converse... Because I know 'John' from the ICI days, I can just pick up a phone and call him whenever I have a problem or a question.... I don't need to go through his secretary or make an appointment... its saves a lot of time" (Business Development Manager)

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Other factors??

- ICTs- High tech / High spec Communication Technologies were fairly common place across the region & therefore a non-factor (see 'Cognitive systems' slide)
- Funding- at prima facie not a significant factor emerging from the data
 - There is money now available at the seed level to develop ideas and there was indication that investors from South East and overseas are more willing to look to the North East

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Role of proximity?



- Exploring the contention that proximity leads to more interaction & knowledge exchange
- Close proximity not a mitigating factor- e.g. interactions at 15-30 mins
 - ALSO- Close proximity did not mean participants *would* interact

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6- Summary

- Raises questions about optimal institutional arrangements for intermediaries that facilitate knowledge exchange & grow the KEcon...
- KEx in the north east is more dynamic and non-linear than first imagined
- However, experiences illustrate that the interactions are perhaps influenced by a range of other factors (not proximity, funding etc.)- with aligned with inter-personal and inter-organisational social interactions rather than proximal or sectoral boundaries
- Consider further revision to the policy to build a knowledge economy? Alternative development discourses.....

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**'Doing' knowledge exchange:
the experience of creating the
North East knowledge economy
A few reflections.....**

Comments welcome!

www.durham.ac.uk/geography/research/researchprojects
KEY WORD SEARCH 'CMI' or 'KNOWLEDGE EXCHANGE'

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Possible role for Knowledge Communities?

- Knowledge based communities (KBCs)- increasingly seen as a mechanism for knowledge exchange-
- They exist as groups or individuals that are informally bound together by a shared expertise or passion-
- They are dynamic in their interactions
- They transcend- sectoral, organisational and geographical boundaries- can be 'virtual'
- A policy which supports this type of interaction this rather than sectoral connections in the North East?

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Creating a knowledge economy through KBCs?- recommendations

1. Identify and groom individuals to champion, support and facilitate Knowledge Communities
2. Create incentives for taking risk that are not tied to specific physical outputs but outcomes
3. a. The extent of other remaining links must be assessed.
b. Encourage those which are sustainable and transcend sectoral, technological & organisational boundaries
4. Policy should be directed at linking or re-linking estranged networks
5. Policy should have a more generic focus on learning and knowledge diffusion

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