



The Greater South East

No Science City - No Problem?

(The State of the Knowledge / Innovation Economy of the GSE

An exploration in the Dark)

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Structure of the Presentation

- **Importance of the 'Region' in the Innovation Economy**
- **Importance of the GSE to the UK's Innovation Economy**
- **Challenges facing the GSE**
- **Possible Solutions:**
 - *Focus on Innovation Industrial platforms*
 - *Governance – what is needed to respond to the way the KE / innovation economy operates today / tomorrow? - Platform Governance*
 - *Examples from Europe*
 - *Suggestions for the GSE*

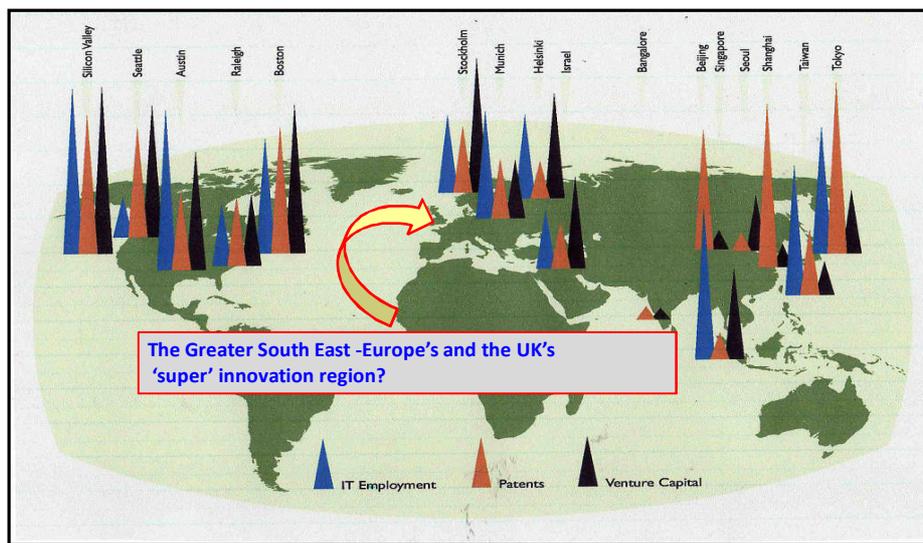
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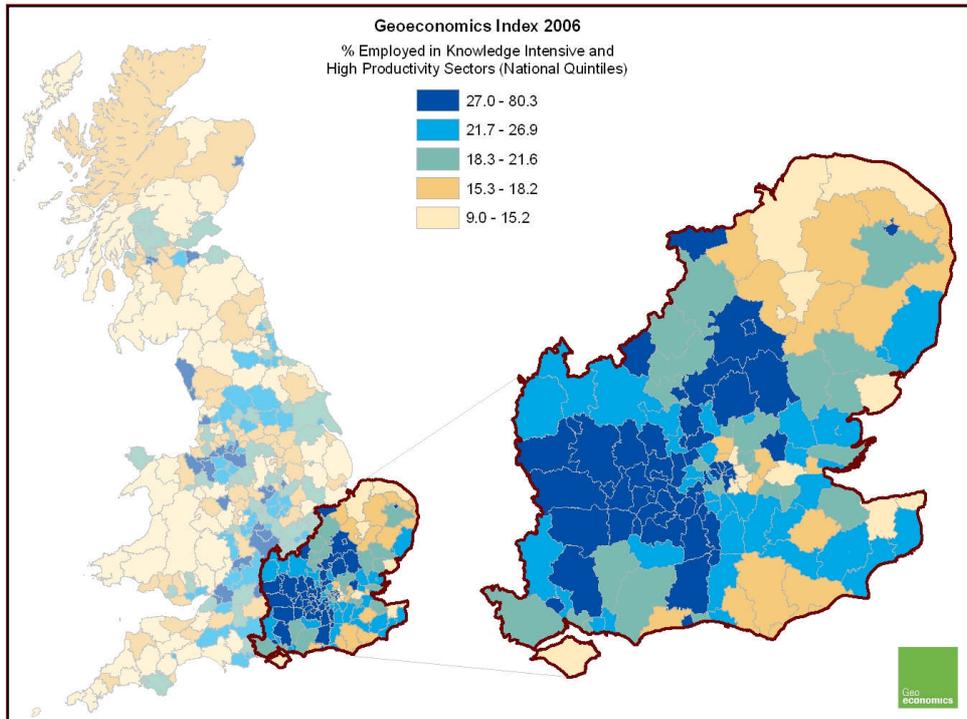
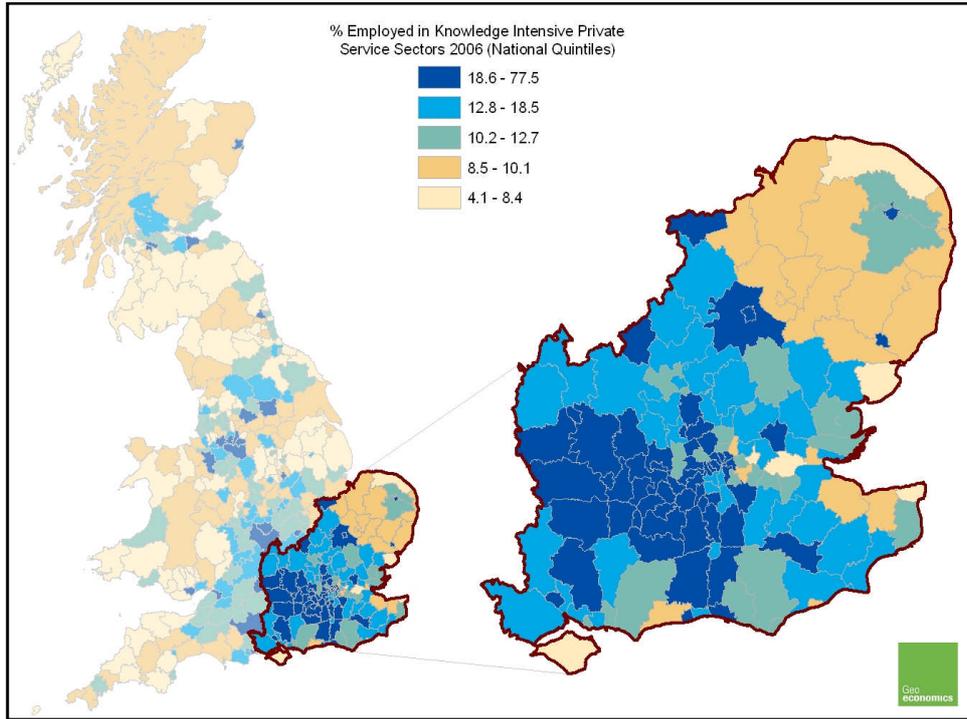
(City) Regions are Powerful Players in the Innovation Economy

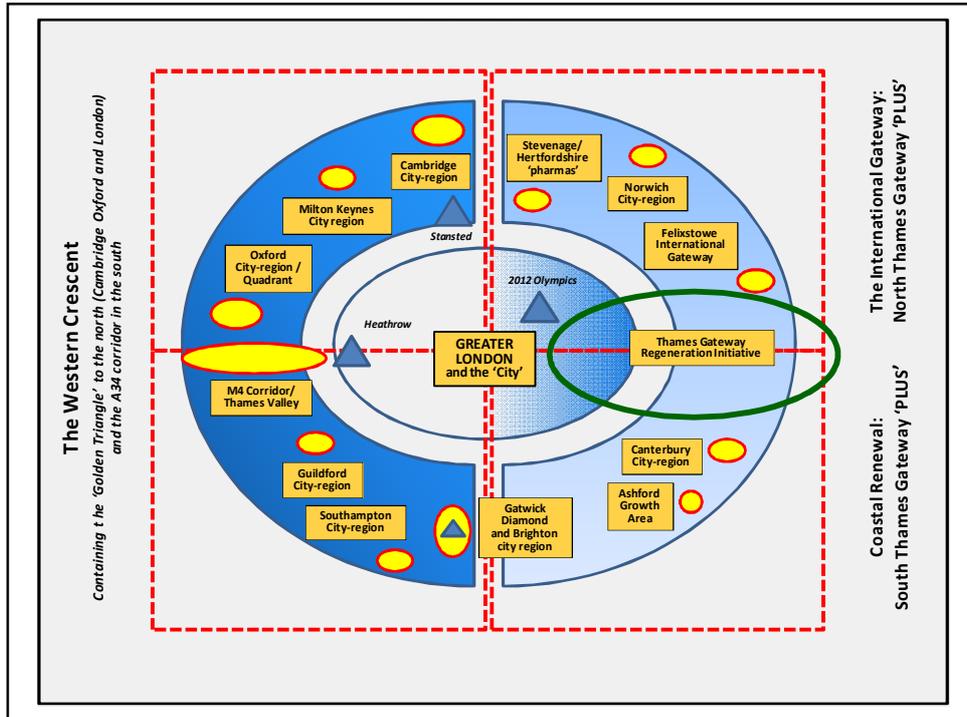
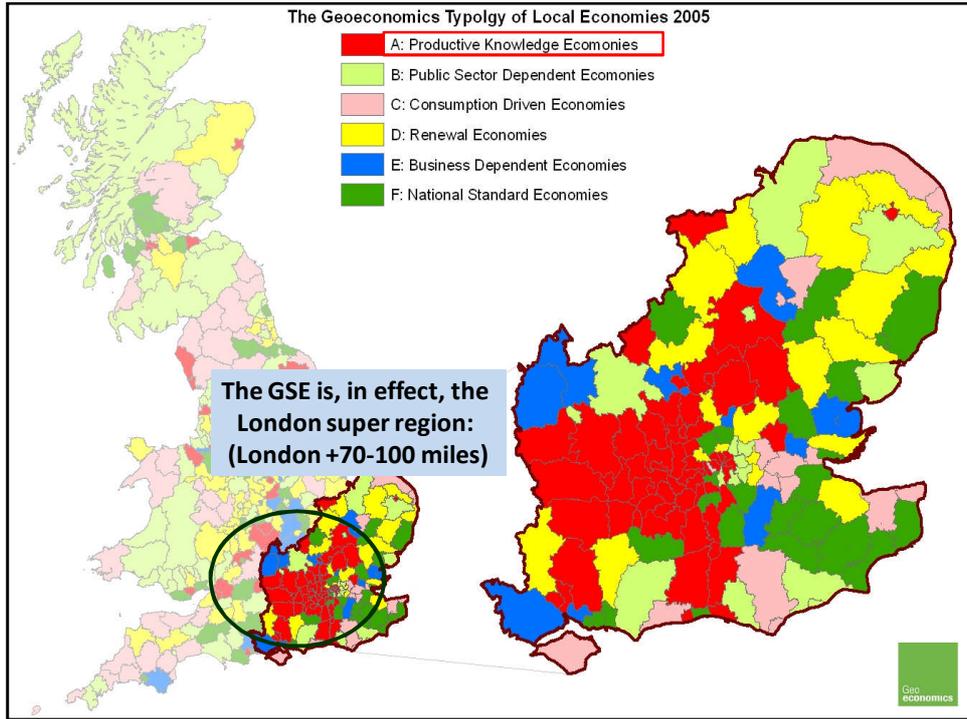
- Complexity of innovation too great for any one player, firm or city.
- City Regions of 4-8-10 million:
 - Large enough to build an innovation ecosystem (*range of innovation assets; agglomeration effects; diversity; natural home of open innovation.*)
 - Large enough to be connected globally (*effective channels to markets; enabling firm to go to scale*)
 - Large enough to allow players to respond to the imperatives of the Innovation economy – (*e.g. networking, collaboration, open innovation, trans-disciplinary research and economic activity, creativity*)
 - Yet - Small enough for communality of sentiment
 - Yet - Small enough for effective governance ?

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Silicon Valley's View of the World: *Spiky Hotspots linked - Reciprocal Upgrading*







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Drivers of Importance

- **Past critical success factors**

- The development of an economy that could win in the global economy (*WB 1976 memo*).
- An economy characterised by **market deregulation** + '**financialisation**'.
- Process far deeper and more effective in GSE than anywhere else in the UK.

*1980-2006 UK growth rates outstripped those of Continental Europe. GSE companies and institutions, particularly City institutions, which were free and able to **continue to adapt** to the commercial opportunities associated with an evolving globalised economy. The GSE economy is big, brash and very important because of its adaptive structural environment.*

- **Recent disruptive processes**

- **Economy - Knowledge soaked, but difficult**
 - *easier to invent the steam engine in your shed than clone genes*
- **Inter-disciplinary – open innovation**
 - *key intersections: nano-genetics-bio-informatics etc*
- **Service-manufacturing fusion**
 - *Nokia – content manager - Rolls-Royce - energy supplier 24/7*
- **Producer – user blurring** (*use driven innovation – 'crowded house'*)
- **'Non Linear'** + moving from the heavy metal fixation (*Design London – Imperial College and RCA – Cranfield doing the same thing...etc*). Importance of symbolic knowledge

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Changes in the KE/Innovation Economy

- **Rise of networked firms**

- *Value networks compete NOT individual firms (rise of network hunting)*
- *Innovation ecosystems compete*
- *People [talent] from anywhere are located anywhere deemed the best location for the delivery of the business proposition in question*

- **Collaboration is increasingly the name of the Game** (*the world is too complicated and inter-connected for any one firm or nation to go it alone*):

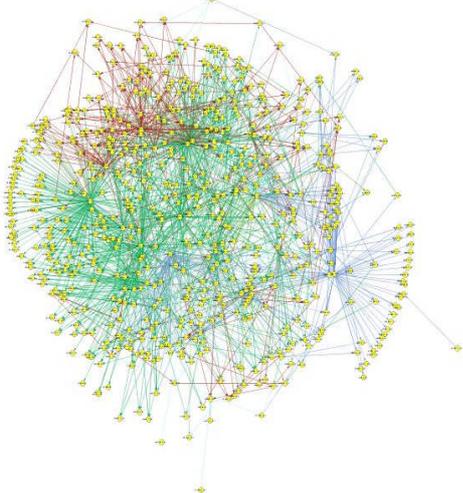
- **Between / amongst firms, universities, user groups.....etc**
- **BUT often concentrated in key city-regions / innovation 'hotspots'** (*why - diversity and size; creative interactions; global links and channels to market – scaling assets-knowledge a 'social process' concentrated within city regions*)
- **Within innovation regions** (within borders -importance of ecosystem)
- **Between innovation regions** (cross border)

- **PLACE matters in the new geography of innovation.** The World is NOT Flat – it spiky and likely to get spikier! Quality of Place matters – attracts and nurtures the 'creatives'

- **Business / Economic Success – often f (privileged position within national /global value networks - innovation-industrial platforms)**

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Innovation increasingly looks like this!



Tearing up the 'stand alone' past

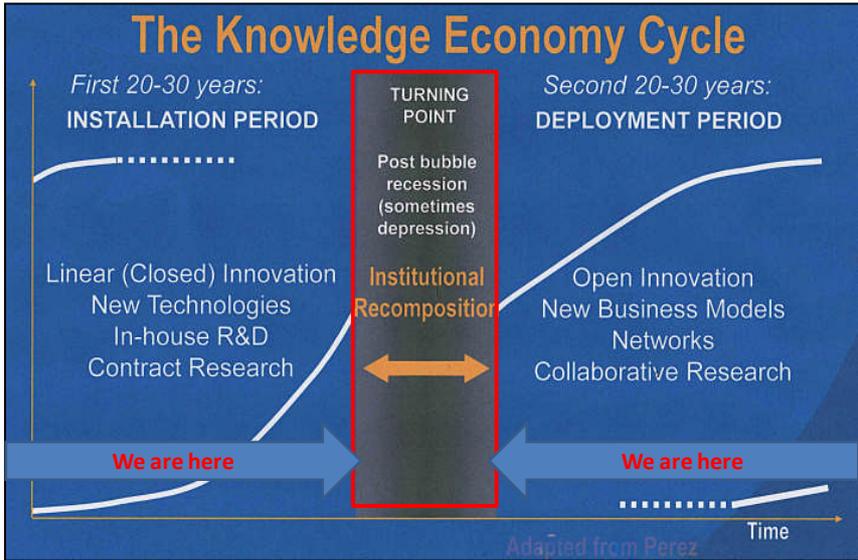


"Innovation is 99% shared technology and 1% exclusive technology" Philips CEO

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Is there an identity between the institutional re-composition happening in the private sector innovation economy and that required in the public sector?

The Knowledge Economy Cycle



First 20-30 years:
INSTALLATION PERIOD

Linear (Closed) Innovation
New Technologies
In-house R&D
Contract Research

TURNING POINT
Post bubble recession (sometimes depression)
Institutional Recomposition

Second 20-30 years:
DEPLOYMENT PERIOD

Open Innovation
New Business Models
Networks
Collaborative Research

We are here ← → We are here

Time

Adapted from Perez

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- **Recession; yes, but even longer 'plays' are:**
 - Rise of East (BRICs+)
 - Resilience of USA
 - Squeezing process (BRICs+ v USA) leading to (relative) decline of Europe and UK
 - Responding to the new Knowledge economy (Policies – governance structure – educational regimes?)
- **Critical mass problem**
 - UK firms (increasingly) don't dominate leading technologies. (Plastic Logic –Vistec)
- **Indicators and Signposts :**
 - Slipping in world rankings (UK and the GSE)
 - Value capture elsewhere and 'by others' (value destruction US / other firms waiting to pounce on good ideas – aggressive defensive (and entirely rationale) business strategy)
 - 80% Oxford Biotec start-ups exist to the US! (source Espire VC)
 - GSE not used as best practice case studies by others (e.g. WB to Holland and Germany)
 - Weighty and creaking governance
 - Overheated and increasingly costly
 - Physical infrastructure constraints (e.g. transportation; premises)
 - Economic infrastructure constraints (e.g. skills – all types)
- **Conclusion : GSE Adaptive structural environment needs a revamp, not just a re-balance** (There is momentum in the system; collapse overnight out of the question, but.....)

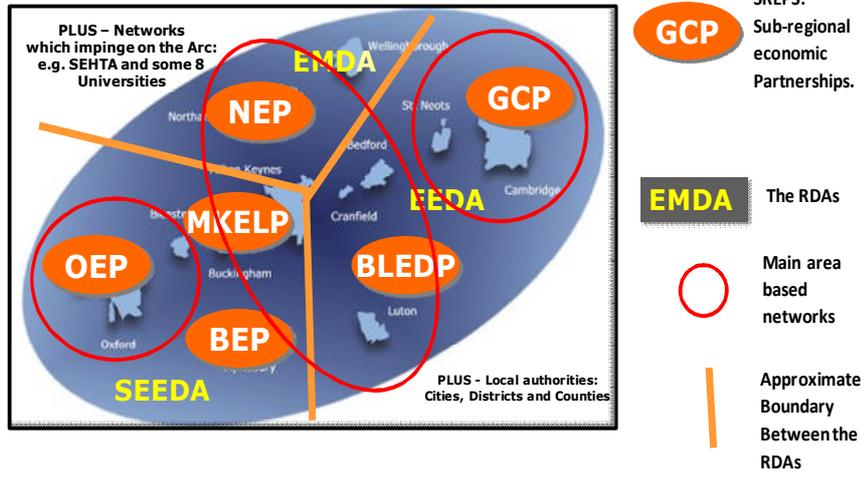
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And Governance structures are inappropriate: (The sad cases of O2C and GMEC)



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And Governance structures are inappropriate A complete MESS!



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Possible solutions

- **Promote smart niche plays within global innovation-industrial platforms**
 - No need to *'out innovate and out-compete'* the competition (Gordon Brown 2006). Unlikely due to critical mass problem.
- **Build defensible niche positions within innovation-industrial platforms**
 - Success –f (privileged position within national /global innovation-industrial platforms)
- **Build an ecosystem around these positions that secure (and expand) these niche positions.**
- **Build a governance structure that is focused on this task.**

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Phil's CSFs!

- **Regions with Opportunities for Combinatory Knowledge Dynamics are Advantaged**
- **Related Knowledge Variety' defines that Advantage**
- **Distributed knowledge networks in 'open innovation' platforms are key to economic well-being**
- **Policy at regional level should focus on supporting platforms**
- **Such platform policies are 'joined-up', flexible and involve 'distributed governance**
- **Build interactions among Clusters**
- **Establish 'related variety' 'aggregator' agency**
- **Implement 'lighthouse' projects – lead markets** (e.g. Solarpark; 'green' fleets; SolarMesse; 'renewable energy leader status' ICT in eco-tech; bio-ecotech demonstration projects etc.)

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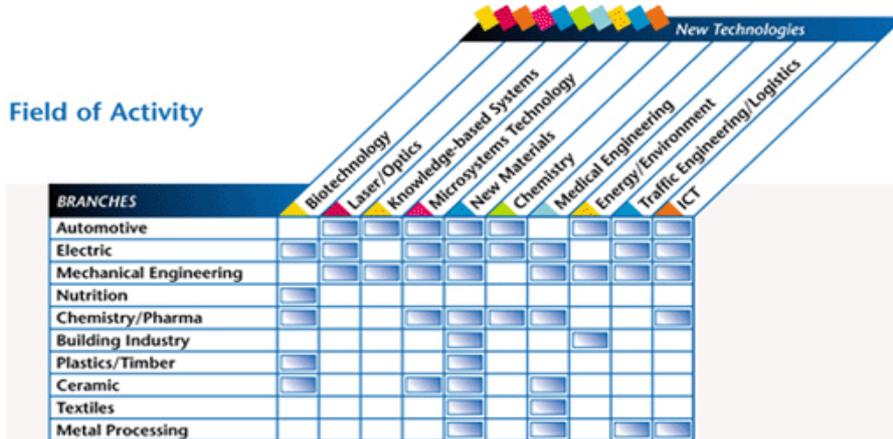
SIGNPOSTS FROM AROUND THE WORLD



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Bayern Innovativ: Technology Platforms

(Bayern Innovativ - <http://www.bayern-innovativ.de/> 2009)

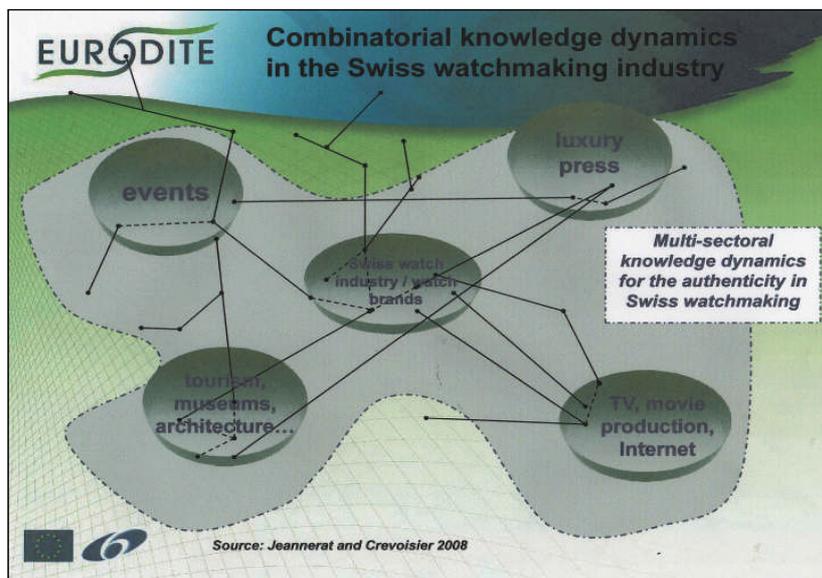


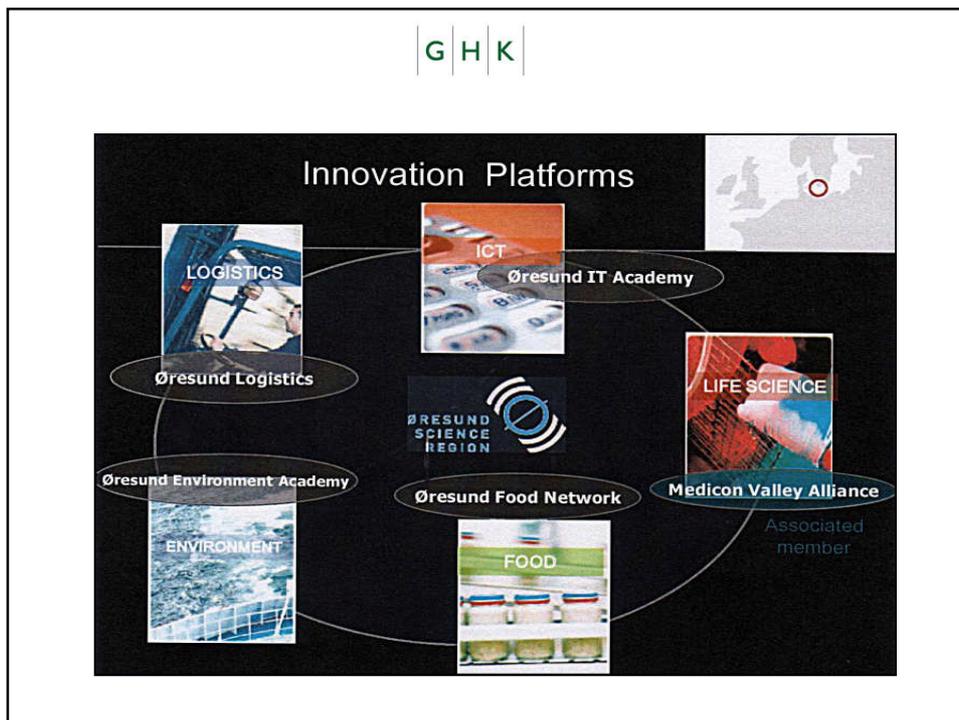
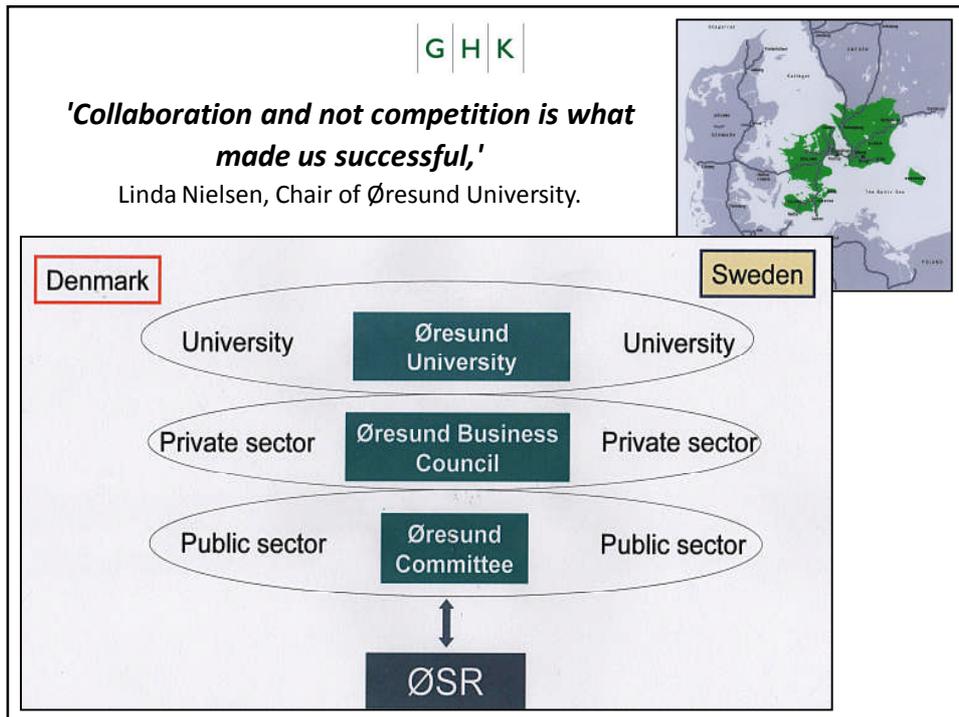
(The marked fields symbolise combinations of technologies and branches and change according to new tasks.)

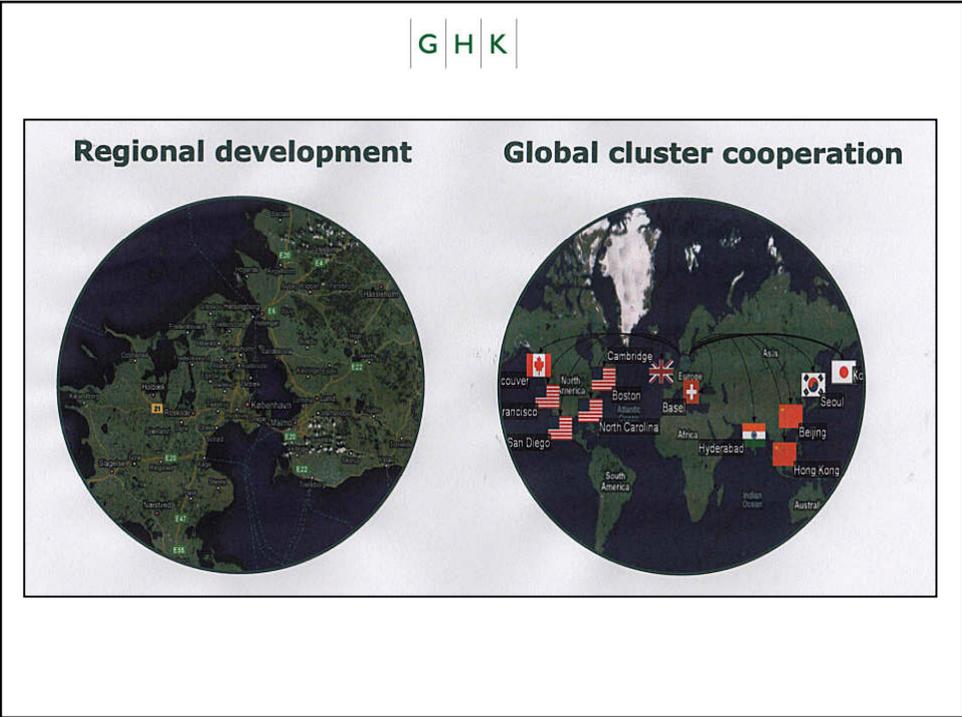
Courtesy of Phil Cooke Cardiff

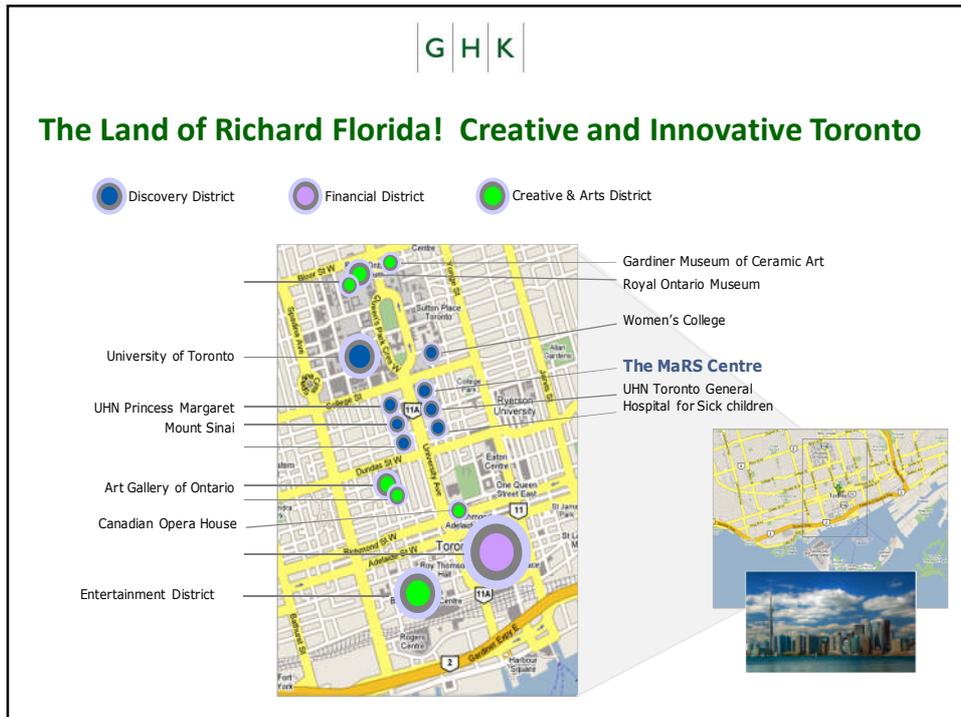
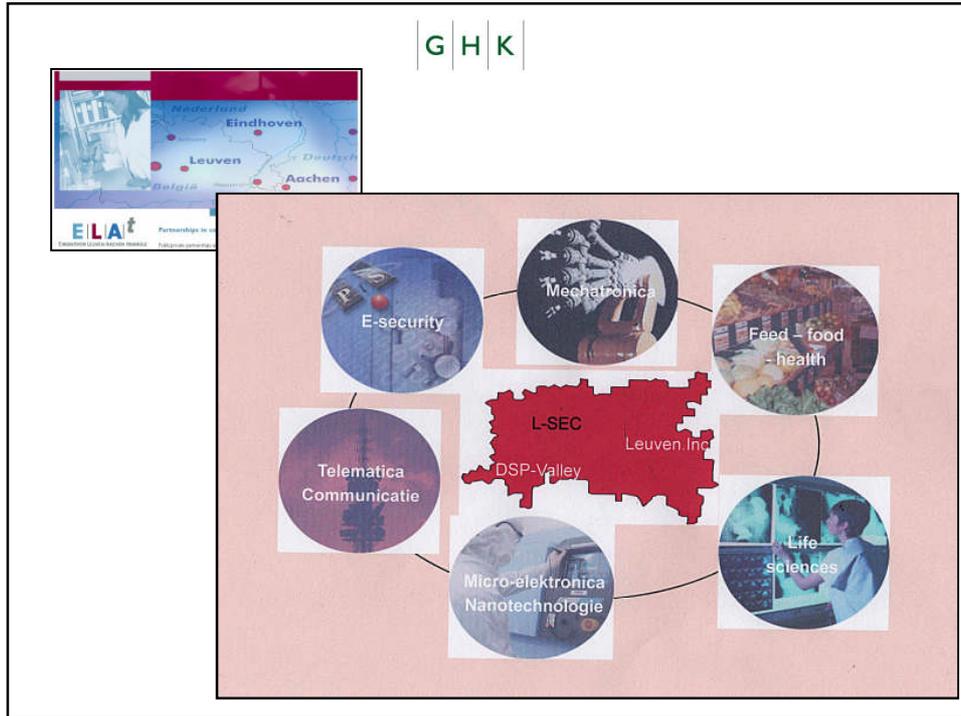
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European Research on Combinatory Knowledge Dynamics and Regional Advantage



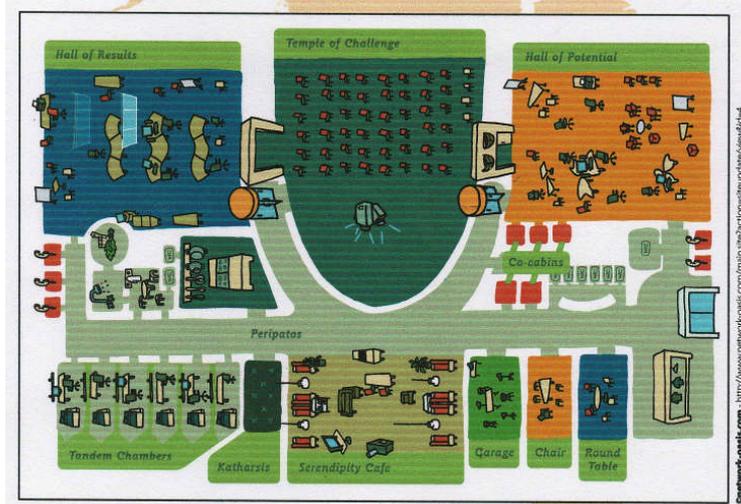




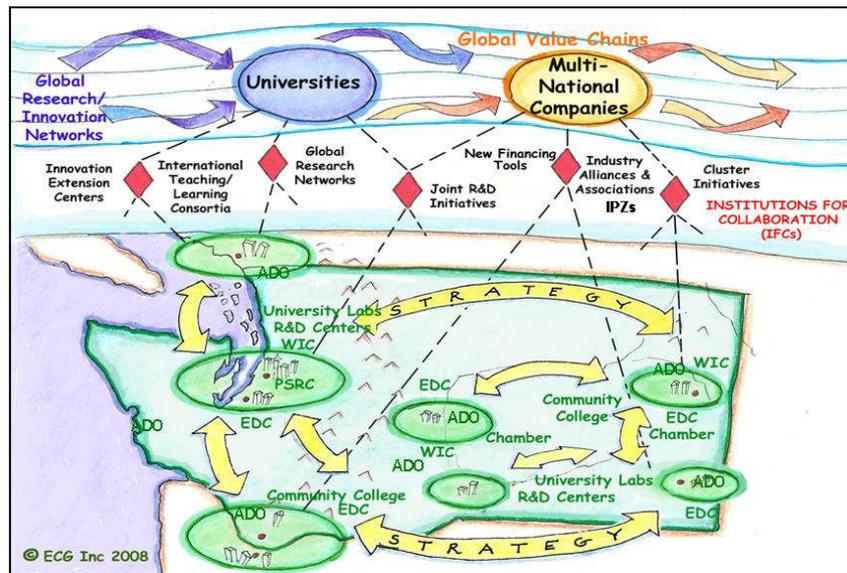


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Network Oasis – Jeonsuu Science Park FINLAND



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Back to the GSE

- **No Science City - No Problem? But needs to respond to the way the innovation economy is evolving – includes governance changes.**
- **Prioritise innovation platforms**
 - Role of TSB – RDA – sector (Platform consortia)
 - Platforms cross administrative boundaries and change over time.
 - City regions important
 - MAA movable – platform focused and change over time?
- **Link into global platforms**
- **RDAs Focus on the Big Hit infrastructure interventions**
- **Be careful of place based and local innovation initiatives**
- **But a focus on local place making (quality of life) is vital**
- **More important than ever before – in times of economic stress**
- **Link into global platforms**
- **Need to Ground investigation into governance options in an understanding of how the regional economy is changing and positioned within the wider global arena.**

Can we change the way we work in the GSE?



