

## Cluster Development: The What? & The Why?



**Ifor Ffowcs-Williams  
Cluster Navigators Ltd  
New Zealand**





**IEGULDĪJUMS TAVĀ NĀKOTNĒ!**

100% no projekta finansē Eiropas Savienība ar Eiropas Sociāla fonda starpniecību.  
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### Ifor (E4) Ffowcs-Williams Background


- Welsh, Canadian & New Zealander
- International business development
  - Multinationals in London, Toronto & Auckland
- New Zealand's export development agency
  - 'Co-operating-to-Compete' approach
- Established Cluster Navigators 1997
- Founder and Past President: The Competitiveness Institute
- Director, Nelson Economic Development Agency

### The Competitiveness Institute

Members: Government agencies & multilateral organizations fostering economic development



### Cluster Navigator's experience



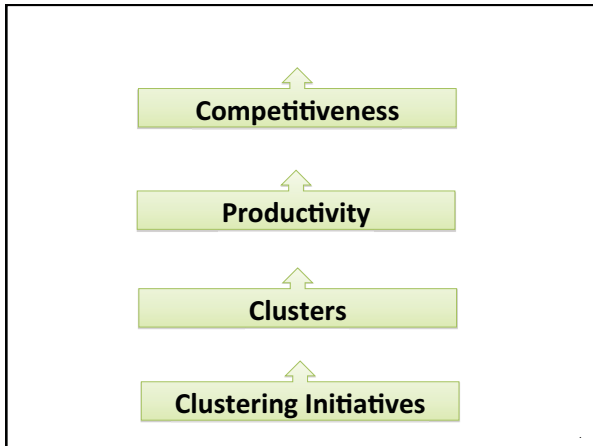
<b>Asia:</b> Bangladesh Cambodia China India Korea	<b>Americas:</b> Bahamas Canada Dominican Republic Trinidad USA	<b>Europe:</b> Czech Denmark Estonia Finland Georgia Germany Iceland Ireland	<b>Africa:</b> Botswana Ethiopia Kenya Libya Mauritius	<b>Other:</b> Latvia Lithuania Norway Poland Spain Sweden Switzerland Turkey UK Saudi Arabia UAE Mozambique Rwanda Tanzania Uganda South Africa
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**Advisors to:** World Bank, UNDP, OECD, UNIDO, VINNOVA, INNOVATION NORWAY, USAID


### Workshop draws on:



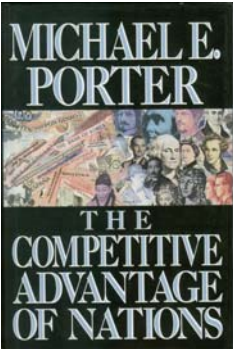
- Cluster Navigators' work in 45+ countries
  - Training, cluster start-ups, reviews
- Leading academics
  - Mike Enright, Mike Porter, Stu Rosenfeld ...
- International agency strategies
  - OECD, World Bank, UNIDO, USAID
- The Competitiveness Institute
  - [www.tci-network.org](http://www.tci-network.org)




**Cluster development**  
**The What? The Why? The How?**



Smart specialisation  
 Joined-upness  
 Place based



**'Clusters are the building blocks of a modern economy'**



**Clustering...a natural occurrence**



**Grasse: Perfume capital of the world**  
**Distillation of perfume oils**



**GRASSE**  
 LA VILLE DES FLEURS ET DES PARFUMS



**Bresle, northern France: Glass Valley**  
 50 manufacturers; 6,000 jobs; 60% of local workforce  
 75% of world production of perfume bottles;  
 75% exported




**Cosmetics Valley, France**  
 200 firms; 16,000 jobs  
 178 research labs; 4 universities

**Three specialist clusters with close links**

**VEGEPOLYS**  
 La «value végétale»

**France: Major clusters under development**



**In addition: 376 'rural clusters of excellence'**

**Italy: Examples, World Class Clusters**

- Montebelluna - ski boots
- Udine - furniture
- Carpi - knitwear
- Sassuolo - ceramic tiles
- Modena - sports cars
- Bologna - food machinery & packaging machinery
- Castel Goffredo - hosiery
- Biella - wool textiles
- Milan - finance, machine tools
- Turin - autos
- Parma - food industries
- Carrara - stonework
- Prato - wool textiles

### The changing environment

Development of global centers of excellence

 <ul style="list-style-type: none"> <li>• <b>Castel Goffredo, Italy</b></li> <li>• Population 7,000</li> <li>• 200 sock firms</li> <li>• Annual production: 1.3 billion pairs</li> <li>• <b>60% of Europe's socks</b></li> <li>• Machinery exports</li> </ul>	 <ul style="list-style-type: none"> <li>• <b>Datang, China</b></li> <li>• Population 100,000</li> <li>• 2,500 sock firms</li> <li>• Annual production 9 billion pairs</li> <li>• <b>1/3 of world supply</b></li> </ul>
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### Udine chair cluster, Italy

Specialised cluster, specialised firms


- 14,000 employees
- 1,200 firms; 250 export
- Strong rivalry, yet collaboration: **Co-opetition**
- No. 1 in the world for chair manufacturing



### Silicon Valley

The leading high-tech cluster globally

Home to 7,000+ high-tech companies



### Silicon Valley's culture

'The Next Silicon Valley' White Paper

- "Silicon Valley is not a place for research, it's a place where people **communicate** ideas"
- "The universities are more **application-oriented** than elsewhere in the nation"
- "Silicon Valley is not about silicon, it's about **innovation**"
- It's the **culture** that matters; informal **networking** and adaptability. "

Source: Doug Henton Collaborative Economics

### Aarhus, Denmark

- #1 wind energy cluster in the world
- Now Vestas's HQ
- 90% of Denmark's activity
- 80+ companies
- Full supply chain
- 11,000 employees



### Arjeplog, northern Sweden

A global 'hot spot'



**Winter car testing**  
 Arjeplog, northern Sweden

- Today: 2,000 people directly employed
- High school programme



**Slow beginnings:**  
*"Several of the entrepreneurs were like enemies and did not talk to each other"*

**The Sunne Surprise**  
 Smart specialisation:  
 Graphic design for flexible packaging





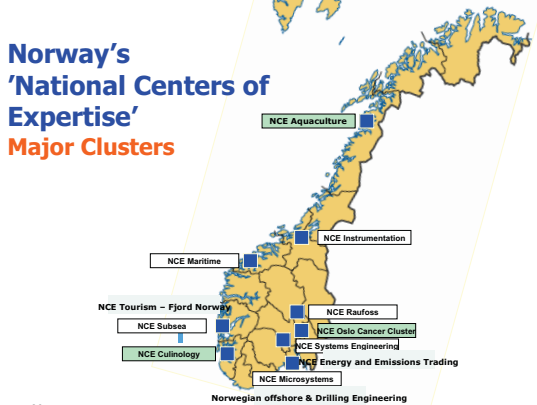
**BrobyGrafiska, Sunne, Sweden**

The only flexography printing school in Scandinavia.

A meeting place, conference centre and research facility.



**Norway's 'National Centers of Expertise' Major Clusters**



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**Bergen, Norway: the world's leading centre for subsea technology**

- 100 companies and organisations; employing 4,600.
- Three of the world's leading subsea production system firms, many subcontractors.
- NCE Subsea (1) contributes to closer relations between firms, (2) develops Bergen as the leading authority on subsea maintenance, modification and operation.



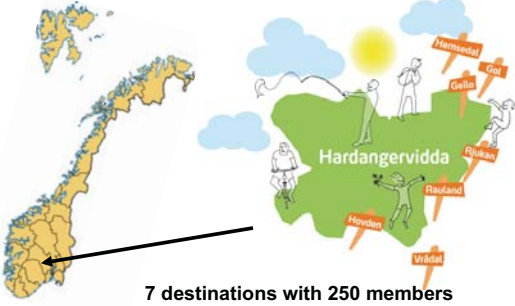
**Bergen University:**

Attracts high value students globally

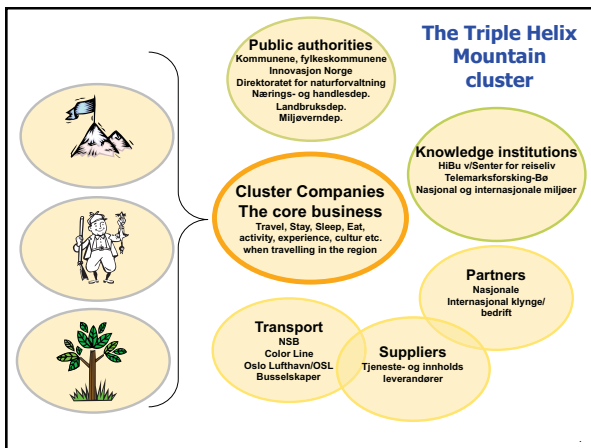
- B.Sc. in Underwater Technology, focus on subsea operation and maintenance
- New Master's in Underwater Technology




**Norway's Mountain Tourism Cluster**



7 destinations with 250 members



**Sweden's national cluster initiative**



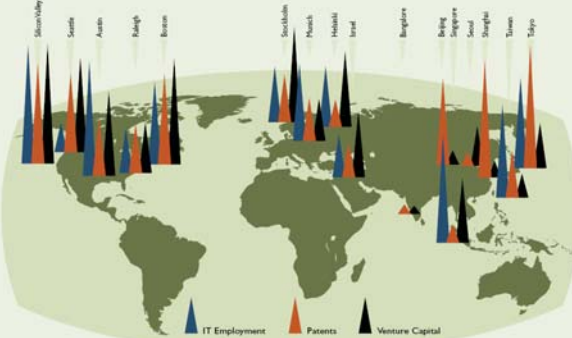
**Germany's lead clusters**

Financing for each cluster: €80 million over 5 years

**Deutschlands Spitzencluster**  
 Gewinner des Spitzencluster Wettbewerbs des BMBWF



**The world is not flat ... it's spiky**

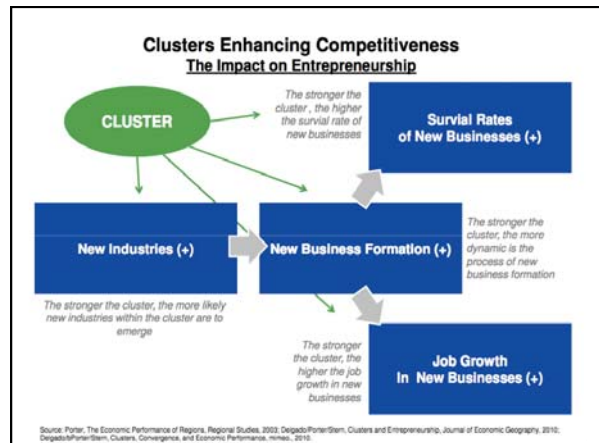


IT Employment Patents Venture Capital

### Clusters ... an international buyer's view

Buyers are travelling to fewer places ... places with an established reputation in a specific field

Buying knitwear?	Go to Carpi, Italy	Select from 2,500 knitwear firms
Buying carpets?	Go to Dalton, Georgia, USA	178 mills, 45% of world production
Buying cigarette lighters?	Go to Wenzhou, China	95% of world production
Buying oil rig accomodation systems?	Go to Kristiansand, Norway	98% of world production



### International research The evidence on clusters is clear



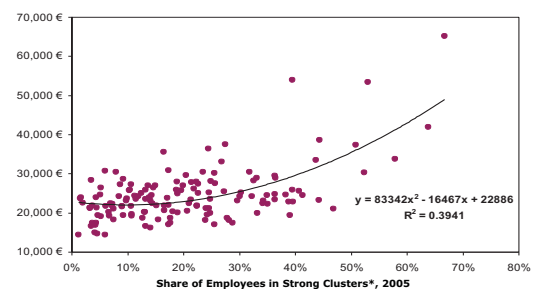
- Firms in clusters are **more competitive** than similar firms located outside clusters.

Clusters generate:

- More employment
- Higher economic growth
- Higher wages
- Better productivity
- Higher levels of innovation
- More entrepreneurship
- More start-ups, and
- Attract more investment.

### Wealth creation and strong clusters Positive correlation

GDP per Capita (PPP adjusted), 2004



Note: Strong clusters defined by LQ-2; NUTS Regions excluding Portugal and Greece. Source: European Cluster Observatory, ISC/CSC cluster-codes 1.0, dataset 20070510

Ketele/Silveili - CSC

### Clumps & Clutter v. Innovative Clusters

#### Clumps of firms

- Local agglomerations of self-contained, stand alone, vertically integrated, isolated firms;
  - Little trust, limited interaction;
  - Little out sourcing, subcontracting, collaboration
  - Geographic but not social proximity



#### Clutter of public agencies

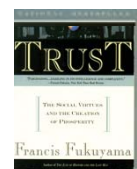
- Silos with individual (divergent?) development agendas for the cluster
  - Each seeking PR glory
  - Absence of teamwork, alignment, trust
- Remote from the private sector
  - Priorities set in isolation;
  - And ever changing, esp with national agencies

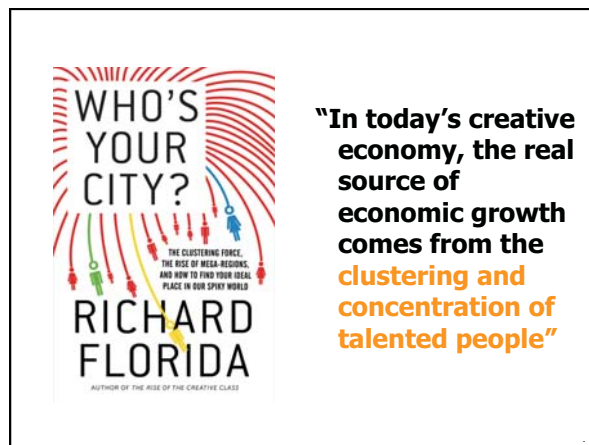


### Innovative Clusters

#### Common elements

- Deep specialisation**, competencies
  - Supported by public investments, academia
- Local buzz**: dense networking
  - Rivalry yet collaboration, **co-opetition**
  - Rapid movement information
  - Teamwork between firms and with university, government agencies
  - Leadership, tight alignment
- Global pipelines**
  - Connections beyond the region
  - Attracting customers, new investment...





### Economist Intelligence Unit

**Fostering innovation-led clusters, 2011**

"There are few economic development policies as popular as clusters. It is hard today to find a country, region, or even city that is not trying to develop a network of complementary and competitive firms."

### Cluster-based economic development

**A focus in 75+ countries**

Positive link between cluster development &:

- **Innovation**
- **Productivity**
- **Competitiveness**
- Job creation
- SME growth
- Investment attraction
- Export development

### Cluster development in Europe

**Now a mainstream approach**

- Over 2,000 regional clusters identified
- 38% of European jobs concentrated in clusters
- Approximately 1,400 cluster organisations
- 130 funding schemes specifically dedicated to cluster development in 31 countries


### European Union

- Supporting the cooperation across Europe of regional 'research-driven clusters'
- Overarching objective: Promoting European competitiveness and regional development through **smart specialisations of regions** in a globalized world.






### A Cluster Definition



**Geographic concentrations** of interconnected companies, specialised suppliers, service providers, firms in related industries and associated institutions ... in **particular fields** that compete but also cooperate.'

*Prof. Michael Porter, Harvard University*

### What is not a cluster?



- A real estate development...an industry / science / technology park...a precinct...an incubator...an export processing zone;
- A consortium between a number of firms...a grower's cooperative...a business network;
- An industry, trade or professional association.

**But each of these may well be an important element within a cluster**

