



COPENHAGEN
CLEANTECH CLUSTER

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5 AVRIL 2011

IHEDATE VOYAGE D'ETYDES

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HEAD OF SECRETARIAT

AGENDA

1. Some numbers and trends
2. What is a cluster and why use the cluster approach?
3. Copenhagen Cleantech Cluster
 - Background
 - what we do
 - what the goals are
 - and some of the results so far?
4. Discussion





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IT ALL BEGAN IN 2008...



NORDICS USED TO BE NO 1 (A FEW DANISH EXAMPLES)

World leading in offshore wind

World leading in biomass to energy

World leading in district heating

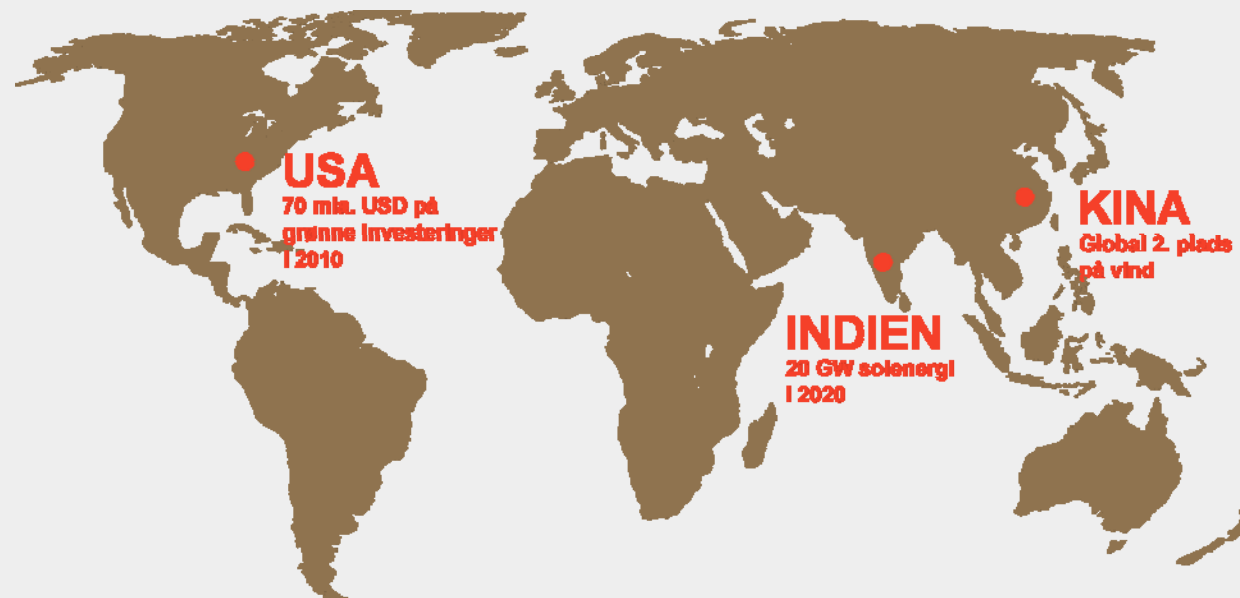
World leading in energy efficiency

World leading in recycling

World's first electric car nation?



CLEANTECH IS A GLOBAL REVOLUTION

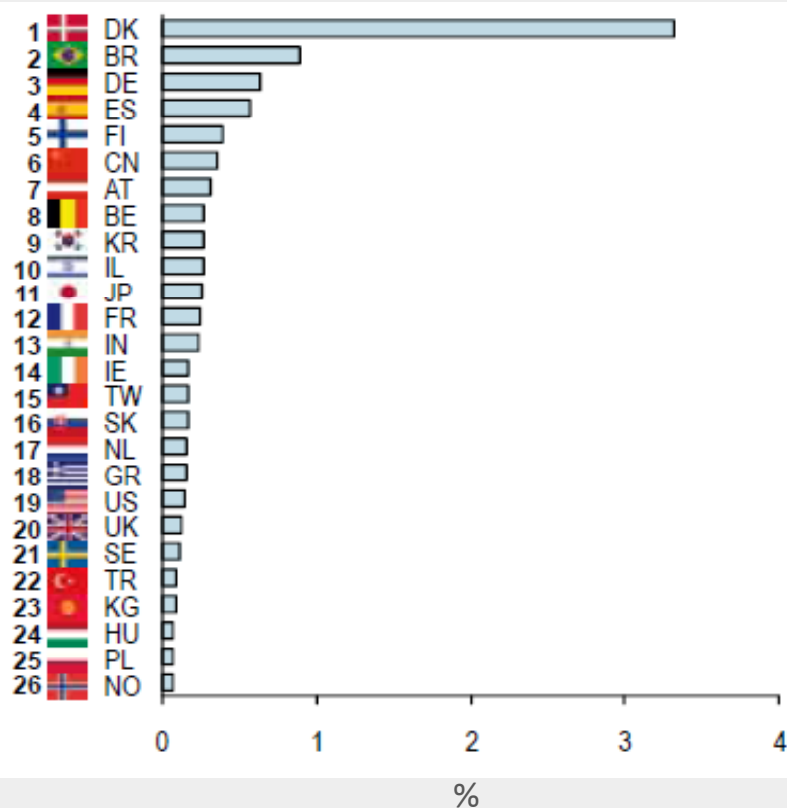


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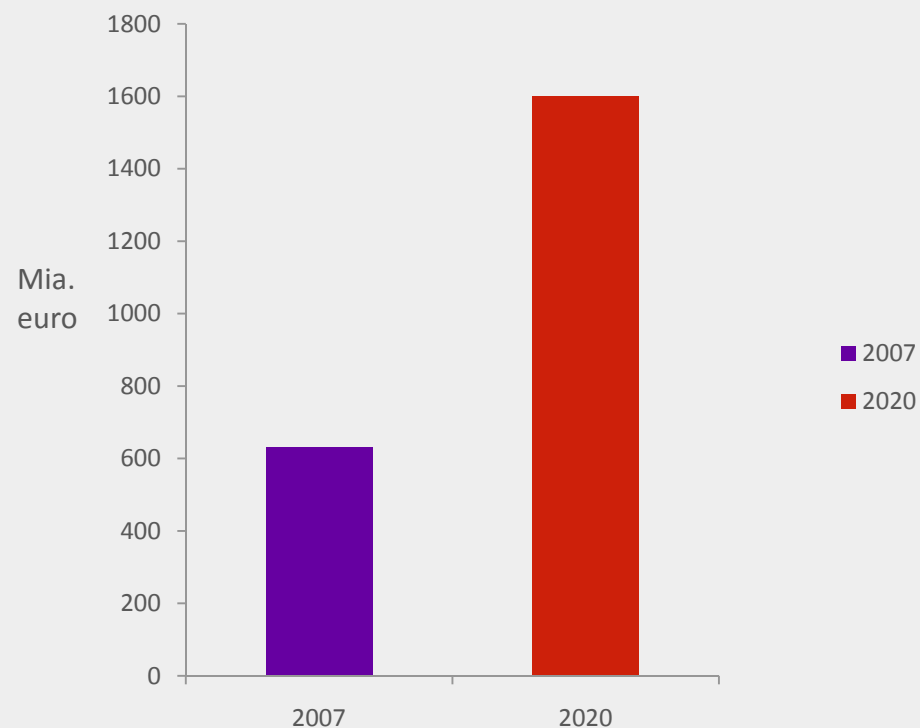
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CLEANTECH EXPORT COMPARED BY GDP

Cleantech sales¹ compared by % of GDP (2008)

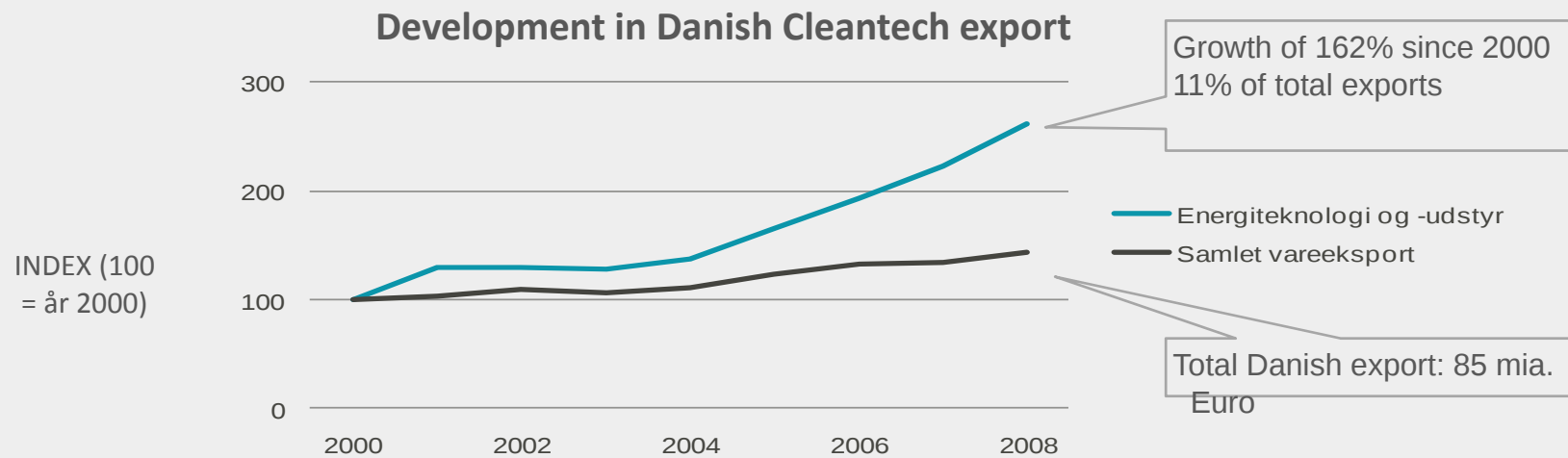


The global cleantech market



1) Cleantech består her af vedvarende energi teknologi og energieffektiviserings teknologi





- 60.000 employees in the Danish cleantech sector
- 720 Danish cleantech companies (app. 50% in the capital region)
- 46 knowledge institutions focusing on R&D within cleantech

CPH CARBON NEUTRAL BY 2025



GOAL:
CO₂ EMISSIONS REDUCED BY 20%
FROM 2005 TO 2015.

VISION:
COPENHAGEN IS CARBON
NEUTRAL BY 2025.

MEASURES FOR 2025	REDUCTION POTENTIAL, TONNES CO ₂
ENERGY SAVINGS	230,000
ENERGY SAVINGS IN THE MUNICIPALITY'S OWN OPERATIONS	19,000
CONVERSION OF BIOMASS	300,000
GEO THERMAL POWER	25,000
SOLAR HEATING	1,000
HEAT PUMPS AND ELECTRICAL ELEMENTS	65,000
IMPROVED WASTE SEPARATION	9,000
INCREASED WINDMILL CAPACITY	925,000
URBAN DEVELOPMENT	30,000
REDUCED ROAD TRAFFIC	150,000

This is how Copenhagen can become carbon neutral by 2025. A scenario for Copenhagen as a carbon neutral city. The potential of these measures are calculated using 2005 CO₂ emissions as the baseline. The combined effect of all measures is smaller than the sum of the individual contributions.



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TOUGH REGULATION CREATES GREEN JOBS

Tabel 1 Jobprognose for cleantechfeltet, for 2012 og 2020, fordelt på scenarier for hhv. Østdanmark og Skåne

			Scenarie 1		Scenarie 2	
	2010	2012	2020	Årlig jobvækst	2020	Årlig jobvækst
Østdanmark	26.447	29.884	36.171	3,18%	61.493	8,80%
Skåne	5.392	5.711	6.717	2,22%	8.735	4,94%
I alt	31.839	35.595	42.888	3,02%	70.228	8,23%

Med de nuværende rammevilkår (scenarie 1) forventer cleantechvirksomhederne en årlig vækst på 3,18% frem mod 2020 , svarende til 10.000 nye grønne job

Såfremt energi- og klimamålsætningerne om et fossilfrit samfund udmøntes i lovgivning (scenarie 2), forventer cleantechvirksomhederne en årlig vækst på 8,80% frem mod 2020 svarende til 35.000 nye grønne job.



CLUSTERS IN THEORY: DIFFERENT PERSPECTIVES

"Industrial Districts" (Marshall 1920)

"Learning Regions" (Asheim 1995)

"Local Production System" (Crouch et al 2001)

"Clusters" (Porter 1990)

"Regional Innovation System" (Cooke et al 1997)

"New Industrial Spaces" (Scott 1988)

"Innovative Milieu" (Aydalot 1986)

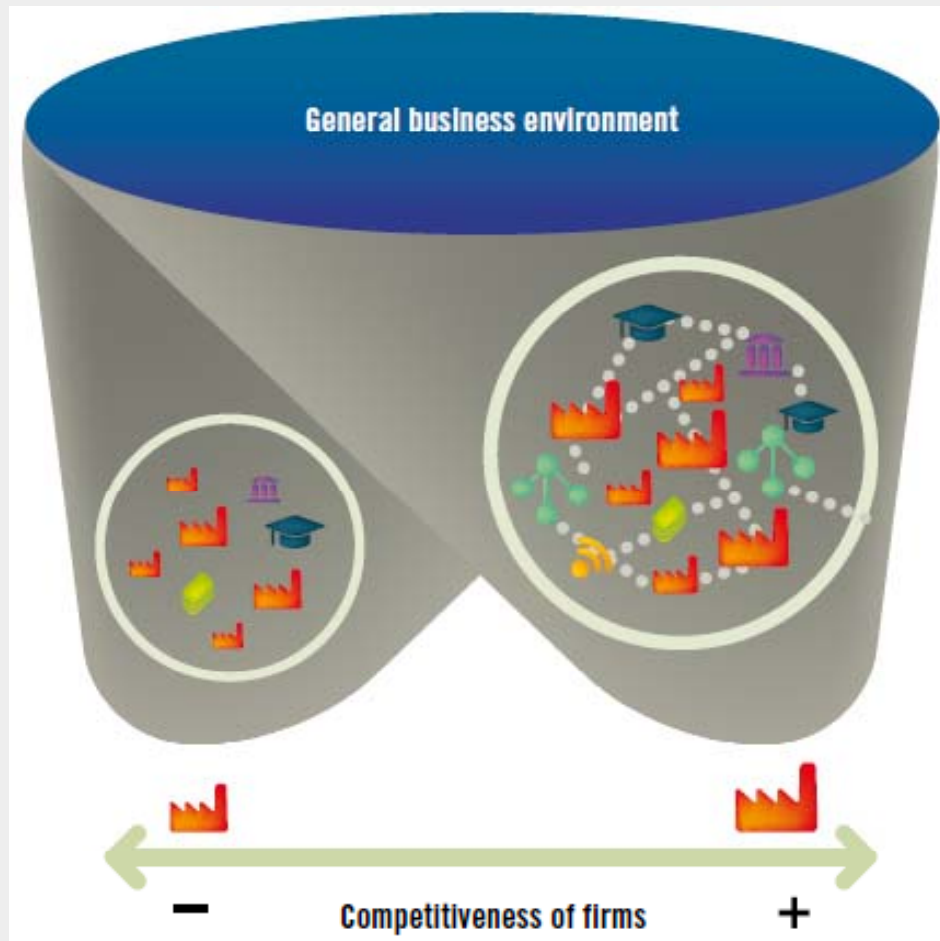
	Fx Moses (1958)	Fx Scott (1988)	Fx Cooke et al (1997),	Fx Porter (1990)
Fokus:	Ressourcer	Sociale netværk	Institutioner og systemer	Systemer
Teoretisk tilgang	Klassisk, neoklassisk	Social og sociologi	Institutionel og systemisk	Strategic management
Stedet	Modelleret, teoretisk koncept	Relationel analyseenhed	Institutionelt indlejret system	Manipulerbare rammevilkår
Metode	Statistisk modellering	Case studier	Teoribygning	Teoribygning



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CLUSTER DYNAMICS INCREASE COMPETITIVENESS



By strengthening cross-sector collaboration, CCC aims to enhance the competitiveness of the cluster companies to the mutual benefit of all cluster stakeholders



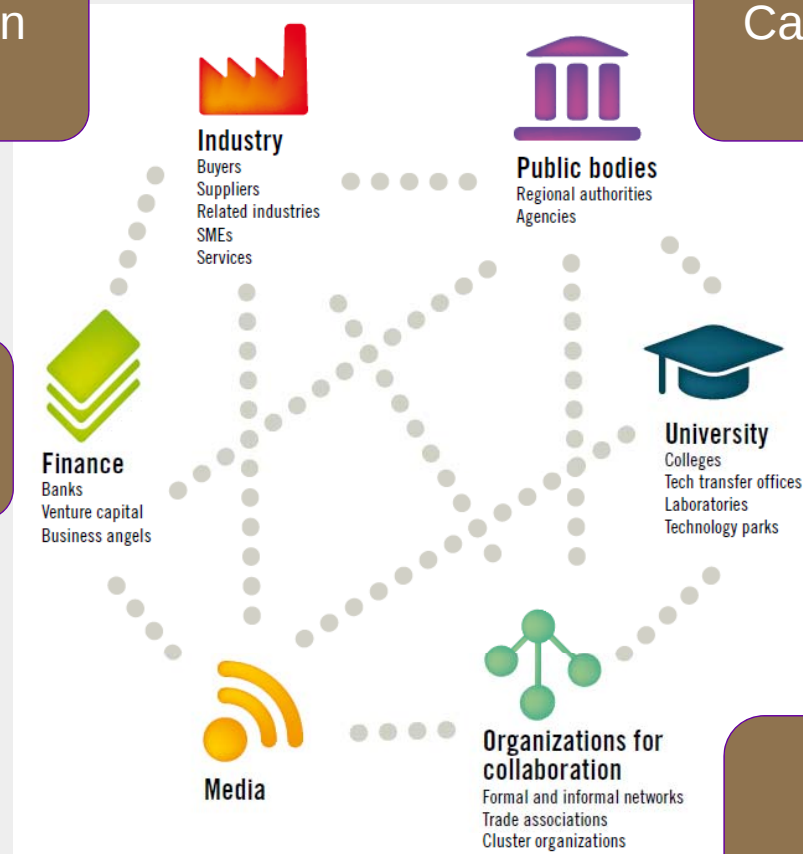
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CROSS-SECTOR COLLABORATION

500+ companies in the cluster

VC, CVC
Public funding



Capital & Zealand regions
Municipalities

Techn. Uni. of Denmark
Uni. of Copenhagen
Risø-DTU
Scion-DTU
CPH Business School

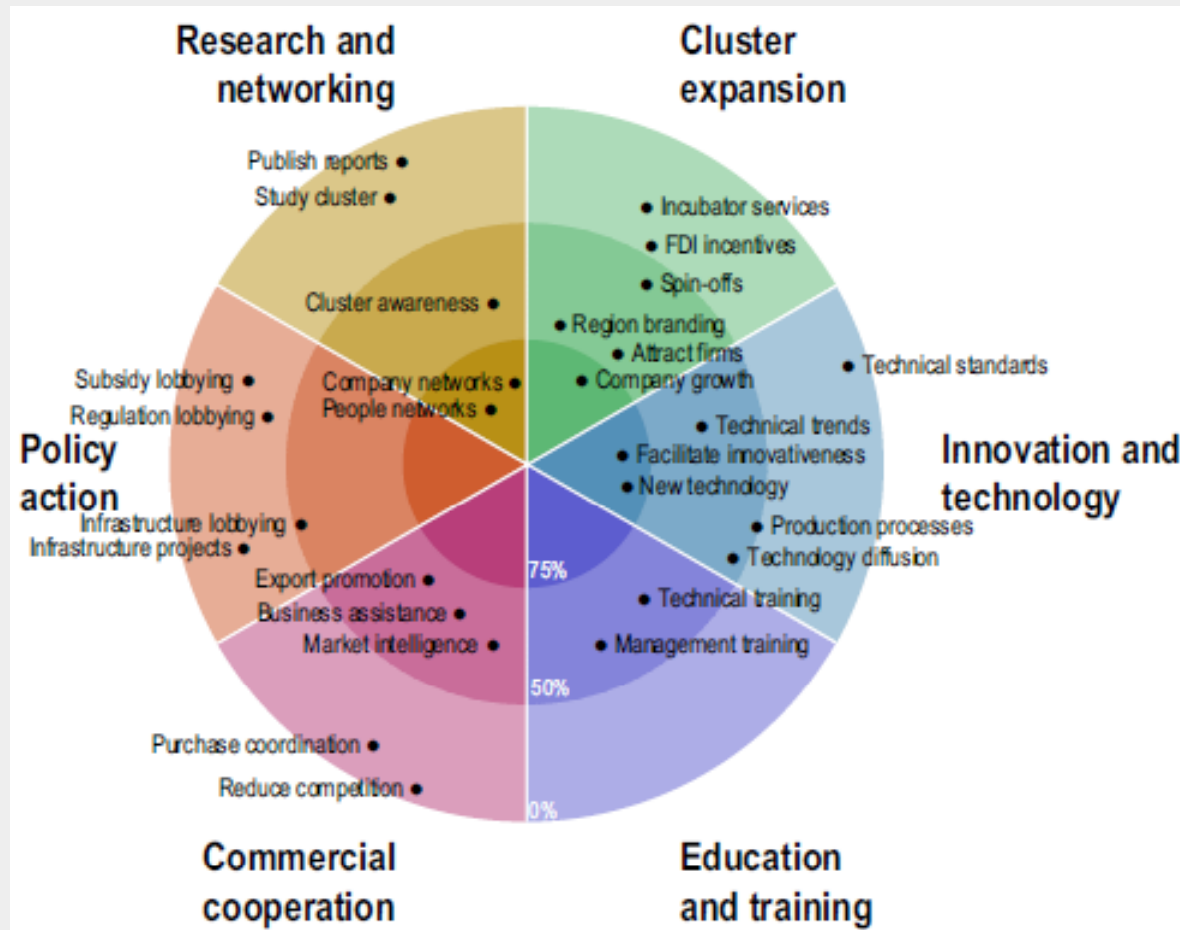
CCC
Conf. of Danish Industry
Copenhagen Capacity
Frederikssund Erhverv



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THE CLUSTER INITIATIVE TARGET BOARD



Cluster initiatives can have different objectives

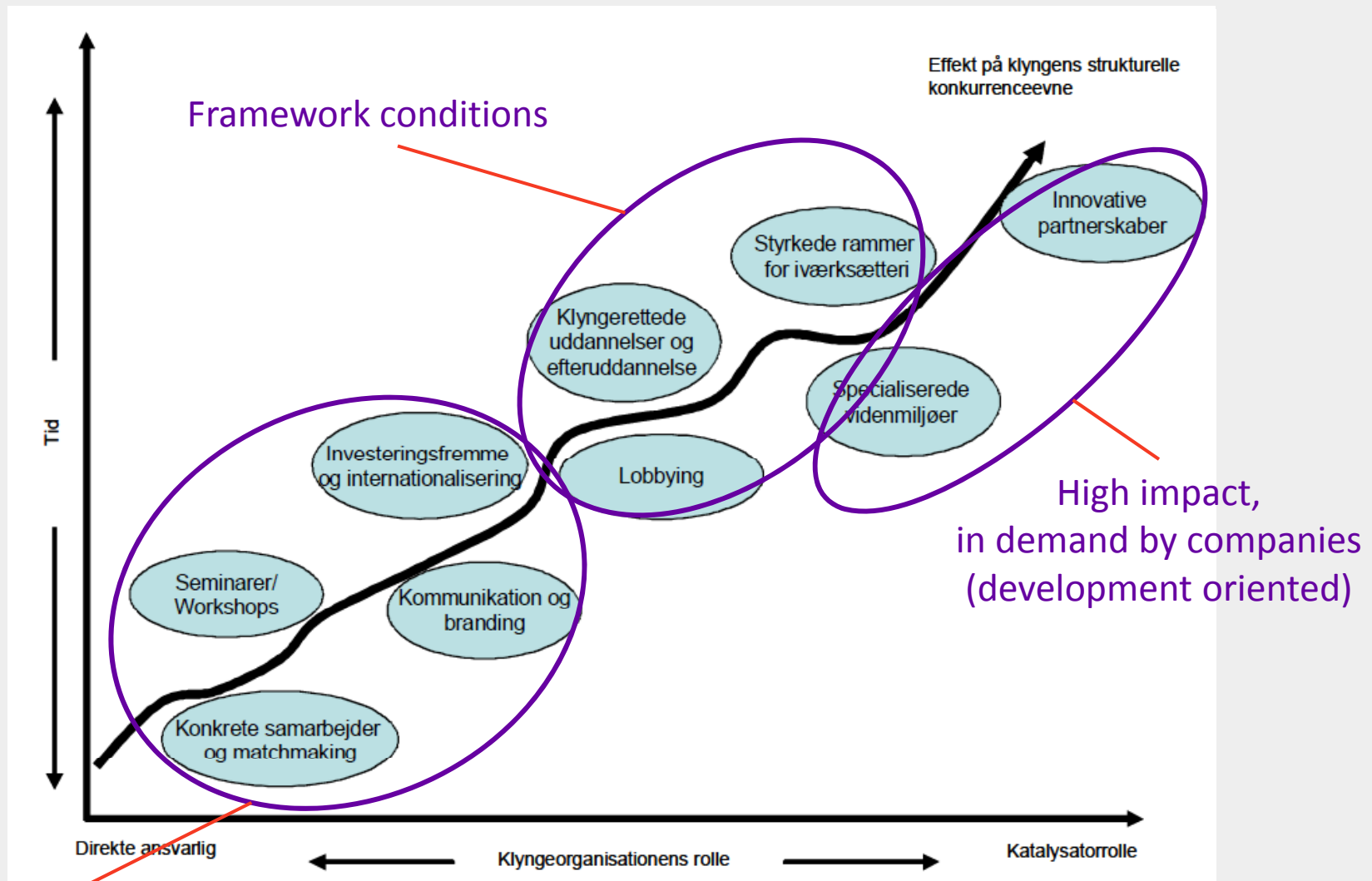
Case studies have shown that cluster initiatives are very diverse in their strategic aims and actual activities



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SERVICES OR DEVELOPMENT?



Starting point: must-do services



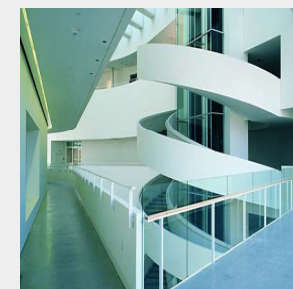
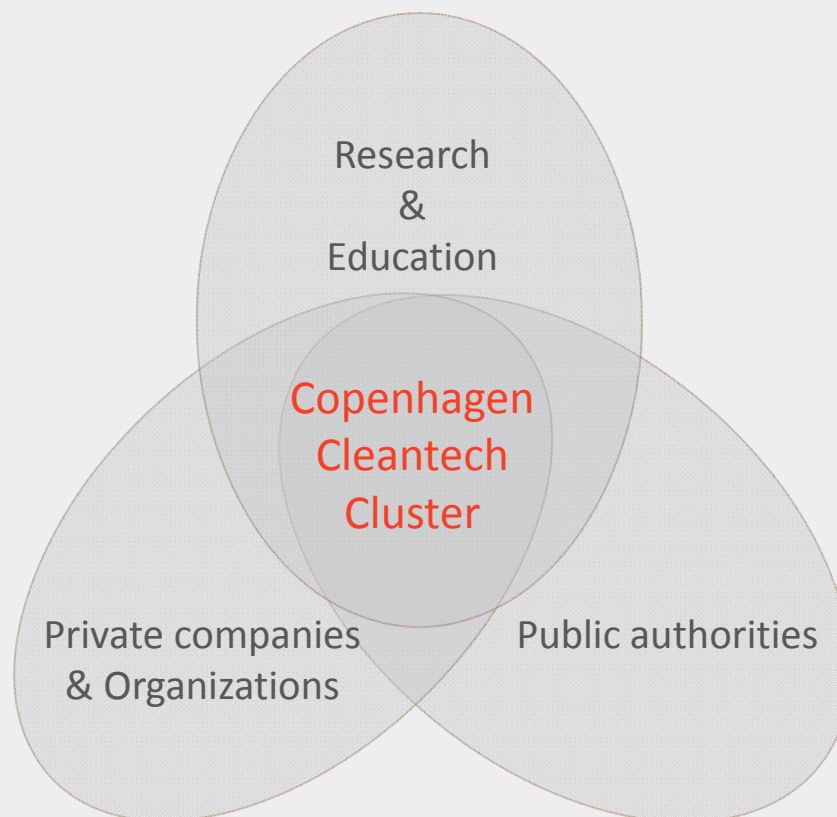
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WHY CCC? NEED FOR A COORDINATING BODY

- Cleantech revolution: The next big industrial adventure
- Focus on Copenhagen: COP15
- Up to COP15: More than 250 initiatives
- Overview needed

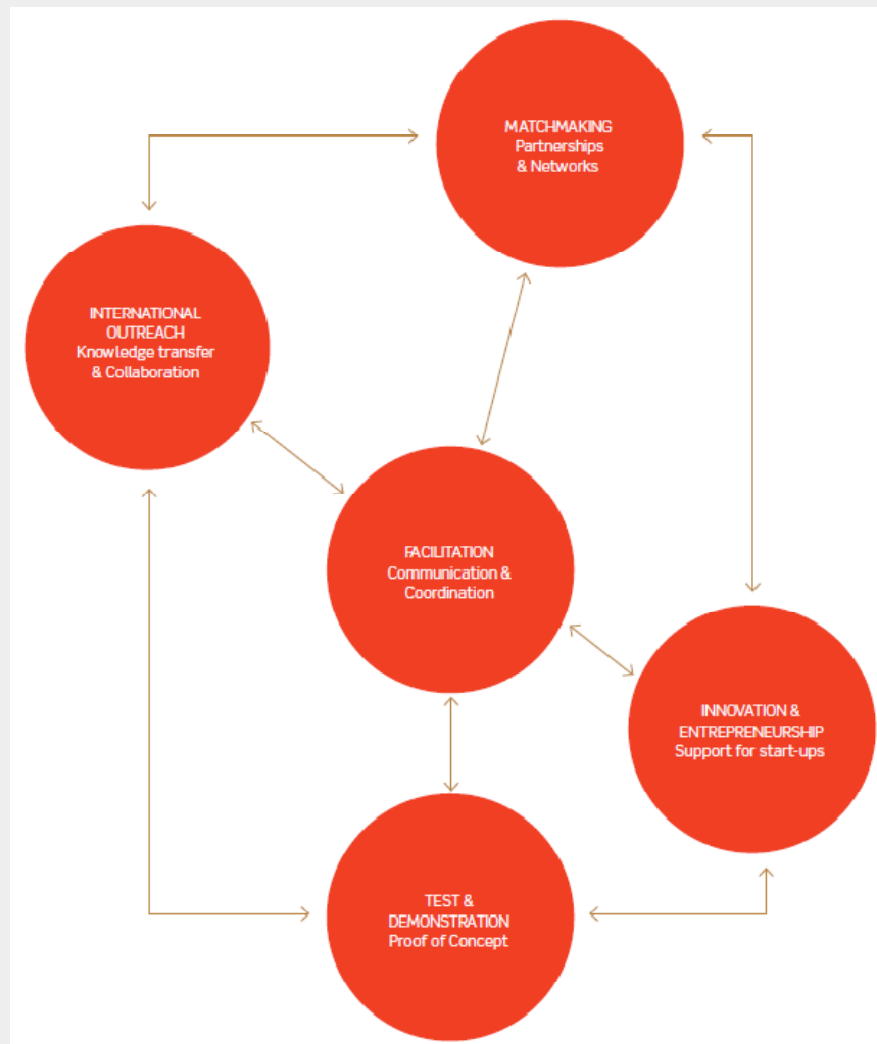
ORGANISATIONAL SETUP



LARGEST REGIONAL INITIATIVE IN DANISH HISTORY

- Backup from all significant stakeholders (companies, universities, organisations, municipalities)
- Political - and financial support from the Regions of Copenhagen and Zealand
- Development of initiative (including stakeholder dialogue)
- Application for EU's Structural Funds April 2009
- 30 mio. Euro over five years (February 2010)

ACTIVITIES AND PARTNERS



Risø DTU
National Laboratory for Sustainable Energy



75 PARTNERS AND NETWORK PARTICIPANTS

- **9 executive partners** (Copenhagen Capacity, DI, Scion DTU, Risø DTU, Copenhagen University, Frederikssunds Erhverv, Symbion, DHI, EnergyMap.dk)
- **16 contributing partnere** (Dong Energy A/S, Novozymes A/S, Haldor Topsøe A/S, Better Place, Vestas, Øland A/S, Seas-NVE, Deliotte, Copenhagen Resource Institute, Roskilde Municipality, Kalundborg Municipality, Ernst & Young, Væksthus Hovedstadsregionen, Væksthus Sjælland, Region Hovedstaden, Region Sjælland)
- **50 network participants** (Lolland Municipality, Albertslund Municipality, Invest in Skåne, Cluster Biofuel Denmark, CBS, Seed Capital, Wonderful Copenhagen, Copenhagen Goodwill Ambassador Corps, Connect Denmark, Cleanfield ApS, Vækstfonden etc.

TO DAY: 195 MEMBERS

Global outlook is critical



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GOALS

OVERALL GOALS

- Increase attraction of int. companies, investments and competences.
- More new Danish cleantech companies.
- Growth for existing cleantech companies in the region

OBJECTIVES FOR THE NEXT 5 YEARS

- Creation of 1,000 new jobs
- Attraction of 25 foreign companies to the cluster
- Creation of 30 new research- and innovation collaborations
- Establishment of collaborations with 15 int. cleantech clusters
- Create value for at least 200 members
- Securing the growth and momentum of 25 entrepreneurs
- Hosting a minimum of 200 events



Top 10 cleantech cluster organizations for 2010

February 22, 2010 by Shawn Lesser

Shawn Lesser of Sustainable World Capital scoured the world looking for leading cleantech economic development regions. Here's his list of top clusters to watch.

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What's a cleantech cluster?

Indeed, many people may have not heard the term, although it could quickly gain currency as people increasingly realize the tremendous opportunities offered by the cleantech sector.

[solar energy, wind energy, hydro energy, technologies, and equipment.](#)

9. **Copenhagen Cleantech Cluster**, Copenhagen Denmark - Copenhagen has a stated goal of becoming the world's first CO₂-neutral capital. Danish cleantech solutions are world famous, and Denmark is one of world's largest exporters of cleantech as measured by GDP. The Copenhagen Cleantech Cluster cluster comprises 40 players, and the aim is to total 200 by 2013. The Copenhagen Cleantech Cluster operates under a \$30 million budget financed by the EU, Region Zealand and the Danish Capital Region. It also has a unique set of partners, including Copenhagen Capacity, Scion DTU, Confederation of Danish Industries (DI), Risø DTU, University of Copenhagen as well as a number of municipalities and huge companies including Dong Energy, Vestas, Haldor Topsøe, Novozymes, Siemens and Better Place Denmark. Specific goals include the creation of 1,000 new jobs and 10 public-private sector partnerships, the staging of 200 events, the involvement of more than 200 players as well as collaboration with 15 international Cleantech clusters. Cluster success stories include: **Stirling DK**, **PhotoSolar**, EcoXpac and Better Place Denmark.

UN-AWARD: CCC ATTRACTS GREEN INVESTMENTS



“The Award was given to Copenhagen Capacity (Denmark) for its work to attract cutting-edge cleantech investors through the building of strong clusters”



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VISIT FROM EU COMMISSIONER JOHANNES HAHN



"I absorb all information, so I can use it in other member countries, and there are many market opportunities in this cluster project. Not only in the EU but also in the rest of the world, and it can mean great job creation for other European countries"

- Commissioner Johannes Hahn

"I hope we will have the opportunity to continue our cooperation and use the example of the Copenhagen Cleantech Cluster as good practice on a European level"

- DG Regional Policy



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THANK YOU VERY MUCH

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