



AN OVERVIEW OF
**ACADEMIC
RESEARCH ON
CLUSTERS
IN DENMARK
2016**

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PREFACE

Cluster Excellence Denmark is the national support function for clusters and innovative networks in Denmark. The objective of Cluster Excellence Denmark is to develop and provide a number of services for Danish clusters and innovative networks in order to ensure optimum working conditions. By means of competence development and internationalization, and by assisting the clusters and networks on operational and administrative tasks, Cluster Excellence Denmark aims to make it easier for the clusters and networks to focus on matchmaking and networking nationally and internationally.

The support function is structured in seven activity areas (see below). The areas of professionalization, competence development and internationalization are prioritized.

- Coordination of Cluster Excellence Denmark
- Knowledge Development/Sharing
- **Professionalization**
- **Competence Development**
- Marketing and Branding
- **Internationalization**
- Analysis

Within the area of knowledge development/sharing, Cluster Excellence Denmark has the aim of strengthening the knowledge base about clusters. As an initial step in this effort, one of the activities in 2015 was to **map academic research on clusters in Denmark** – identifying key individuals/institutions/universities conducting “cluster-related” research. **This year’s mapping builds on the 2015 mapping – adding new individuals, elaborating on key research themes, and providing some examples of “cluster research in use”.**

Cluster Excellence Denmark has contracted Dr. Emily Wise to conduct the mapping. Emily has her own consultancy firm (Innovation and

Entrepreneurship Consulting AB) and is a Research Fellow at Lund University in Sweden. Emily has worked with innovation and cluster policy research since 2003 – providing advisory input, analysis and evaluation services to the EU Commission, to transnational innovation network programmes (primarily in the Baltic Sea Region), as well as to national and regional innovation/business development agencies.

This second mapping provides more detailed information on the cluster research landscape in Denmark – both research themes in focus and trends in research collaboration. This year’s mapping also provides information on how research capabilities are being put to practical use – both by clusters and policymakers. Driven by actors’ demands and guidance from Cluster Excellence Denmark’s advisory board and steering committee, this information may be used to inspire new ideas for making use of the wealth of knowledge and specialized research competencies that exist.

Although the process has involved several rounds of consultations with the research community, we realize that this mapping is not exhaustive. If you – or someone you know – should be included in this list, please contact Bolette van Ingen Bro at Cluster Excellence Denmark (Tel: +45 2811 1819; Email: bob@clusterexcellencedenmark.dk) so that these names can be included in next year’s mapping.

Happy reading!

METHOD FOR THE MAPPING

In 2015, the first “mapping of academic research on clusters in Denmark” provided an overview of 34 individuals from 15 different institutions/ departments at six universities (and two other organizations) conducting research related to clusters. The mapping focused on academic research (i.e. research published in academic journals, books, etc. and/or conducted by individuals with a PhD), and did not include (a large bulk of) research or analytical work on clusters conducted outside of academia. This year’s mapping builds on the 2015 mapping – adding new individuals, elaborating on key research themes, and providing some examples of “cluster research in use”.

Similar to last year, the mapping has taken a broad approach in defining the scope of “cluster research” and in the filters used for being included on the list. This was done in order to highlight a broad range of individuals conducting “cluster-relevant” research. This year, a particular effort was made to highlight cluster-related research themes for each individual on the list.

In the **first phase** of the mapping, additions to the initial list of 34 cluster researchers from 2015 were identified using two approaches:

1. Recommendations from researchers included in the 2015 mapping (or others) of individuals who met the following parameters:
 - Author of an academic publication (PhD dissertation, journal article, book/book chapter, or conference article) related to clusters
 - Published in last 10 years
 - Currently affiliated with a Danish university...or other individuals with a research degree (PhD) who work in the field (but are based outside of academia).

2. A search of academic publications (Thomson Reuters Web of Science), using the following search parameters:

- Publication date: 2006-2016
- Author’s address: Denmark
- Topic: Cluster development or Business clusters or Innovation networks

To be included on the list, all individuals identified in the search of academic publications also needed to be recommended by a research colleague. The first phase resulted in a list of 46 names (34 from the initial list and 12 additional individuals).

In a **second phase**, this initial group of 46 cluster researchers was contacted and asked to confirm their desire to be included on the list of cluster researchers; the “cluster-related” research themes on which they work; as well as recommendations of other individuals (meeting the given parameters) to be added to the list¹.

Individuals could also “opt out” of the list if they did not feel they were relevant.

This “snowball method” resulted in an additional seven names being added to the list, and one being removed. The final list for 2016 includes 52 individuals – 48 from 17 different departments/ institutions at six universities, and four additional individuals.

The descriptive profiles are grouped by department/ institution – listed in alphabetic order by university in part two of this report. Individual profiles, which include a brief description of research focus areas and selected publications, are listed by academic title (Professor, Associate Professor, Assistant Professor) and then alphabetically.

¹ A list of 19 names identified in the bibliometric search (approach 2 above) was attached for their reference.

CLUSTER RESEARCH IN DENMARK – THE WHO AND WITH WHOM

WHO ARE CLUSTER RESEARCHERS IN DENMARK?

Of the 52 cluster researchers included in this mapping, 23 are located within three departments:

- Department of Business and Management – Innovation, Knowledge and Economic Dynamics at Aalborg University (with eight researchers)
- Department of Innovation and Organizational Economics at Copenhagen Business School (with seven researchers)
- Department of Entrepreneurship and Relationship Management at the University of Southern Denmark (with eight researchers)

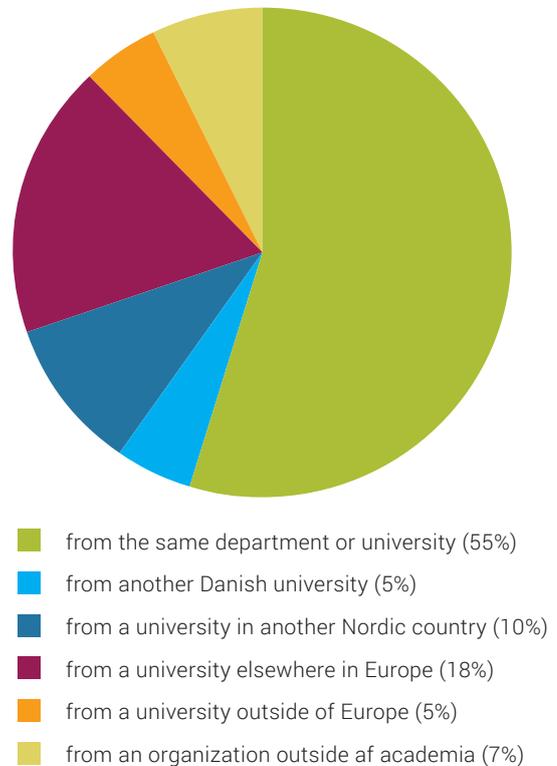
These research groups explore similar research themes (related to innovation and industrial dynamics), and are the organizers of the DRUID (Danish Research Unit for Industrial Dynamics) network.

Outside of these three departments, 19 researchers (in groups of two or three) are located at eight different departments, and the remaining 10 researchers are “lone wolves” (i.e. one individual in an institution/department or other organization). Although these cluster researchers may not have the same opportunities for knowledge transfer with/ inspiration from other individuals in the same group, co-authorship with individuals in other departments or from other universities seems to be a norm.

WITH WHOM ARE DANISH RESEARCHERS COLLABORATING?

As mentioned above, there is a strong level of collaboration on cluster-related research themes – both across departments and universities within Denmark, and internationally. Based on the limited list of publications highlighted in this mapping, researchers collaborate (i.e. co-author publications) in 87% of the cases.²

FIGURE 1: RESEARCH COLLABORATION PARTNERS (LOCATION OF CO-AUTHORS)



Collaboration partners in Denmark are by far the most common (with 55% of co-authors coming from the same department or university, and 5% coming from other Danish universities) – see Figure 1 above. Internationally, partners in Europe (outside of the Nordic region) are more prevalent than partners from other Nordic countries (with 18% and 10% of co-authors respectively), followed by partners outside of Europe (with 5% of co-authors). 7% of co-authors are with individuals based in organizations outside of academia.

⚠️ There seems to be potential for strengthened exchange (and possibly research collaboration) both between universities in Denmark, and with cluster researchers in other Nordic countries (where there are strong research hubs and long experience with cluster programmes).

ANALYSIS OF KEY RESEARCH THEMES

In an effort to further develop and make adjustments to the list of key research themes presented in the Overview of Academic Research on Clusters in Denmark 2015, discussions were held with three researchers.³ These individuals are based at the three research groups with most critical mass of cluster researchers in Denmark⁴ – and represent the three coordinating universities of the DRUID (Danish Research Unit for Industrial Dynamics) network. Through discussions with these researchers and iterative exchanges with the broader group of cluster researchers in Denmark, trends in cluster research have been elaborated and a set of six current key research themes have been identified.

TRENDS IN CLUSTER RESEARCH

Research on clusters has emerged from three main disciplines:

1. **Economic geography** (the study of the location, distribution and spatial organization of economic activities)⁵
2. **Innovation studies** (economic, policy, inter-firm interaction, management and organisational studies of science, technology and innovation)⁶
3. **Entrepreneurship** (the study of entrepreneurs – i.e. those who design, launch and run new businesses – and their activities, contexts, processes, strategies, and outcomes, as well as the study of entrepreneurial dynamics)⁷

Over time, the study of clusters has evolved from exploring the reasons behind, patterns and results of the co-location of firms in related industries

– to exploring how clusters can be viewed in the context of global value chains and linkages between sectors/areas of specialization (i.e. related variety), how individual actors (e.g. entrepreneurs) benefit from interaction and collaboration with others, and what role institutions and structures play in fostering collaboration and interactive learning. Thus,

⚠ cluster research is no longer primarily about the study of clusters per se; rather, it is primarily about how clusters (as platforms for collaborative learning processes) emerge and evolve, and how they can be leveraged in broader contexts.⁸

“Most research on clusters and innovation systems took place in the 90’s. Although I wouldn’t say that cluster research is dead, the research front is no longer about the (existence, development or) benefits of clusters. These topics have been thoroughly explored. In this sense, cluster research (evidencing positive aspects of clusters) has been a success. Now, the research front has moved on. The topic of clusters is embedded in other issues.”

Mark Lorenzen, Professor,
Copenhagen Business School

Current research themes related to clusters have emerged as a marriage between research areas and disciplines. For example, instead of different schools of thought exploring the relative value of local interaction vs. global linkages and production networks, there is a convergence in these two streams. This cross-disciplinary perspective (mixing questions related to geography, economics and

³ Jesper Christensen, Aalborg University; Mads Bruun Ingstrup, University of Southern Denmark; and Mark Lorenzen, Copenhagen Business School

⁴ Of the 34 cluster researchers included in the 2015 mapping, 17 were located in three departments: Department of Innovation and Organizational Economics at Copenhagen Business School; Department of Business and Management – Innovation, Knowledge and Economic Dynamics at Aalborg University; and the Department of Entrepreneurship and Relationship Management at the University of Southern Denmark.

⁵ Examples of theoretical frames and key sources of inspiration include: Marshall (1890) on industrial districts, Dahmén (1988) on development blocks, and Porter (1990) on clusters

⁶ Examples of theoretical frames and key sources of inspiration include: Freeman (1987) and Lundvall (1992) on national innovation systems and (systems of) interactive learning

⁷ Examples of theoretical frames and key sources of inspiration include: Feldman (2001, 2005 and 2012) and Carlsson (1989, 1992, 2009) on entrepreneurship in a regional context, firm evolution and industrial dynamics

⁸ Broader in terms of geography and sector, as well as in terms of policy area and societal impact

management) is the novelty of current “cluster research”.

In fact, Danish researchers are active in what has emerged as a new research area combining international business, economic geography and innovation (iBEGIN). “iBEGIN aims at integrating and leveraging three diverse research streams in order to develop a holistic view of the organization of economic activity across space.”⁹

KEY RESEARCH THEMES

Based on existing gaps in the literature and the focus of current work among Danish cluster researchers, six key research themes have been identified:

1. **Clusters in context of globalization** – exploring questions such as:

- How do firms and clusters combine local processes/systems and global interaction?
- What is the connection between clusters and location strategy? (Does the existence of clusters/collaborative ecosystems contribute to the attraction of talent and investments?)
- How can clusters be leveraged in relation to export promotion, FDI, international collaboration?

2. **Clusters in the context of relatedness, related variety (and evolutionary economics)**

– exploring questions such as:

- How can we understand the connection (or balance between) specialization and related variety in the context of regional growth?
- How can relatedness explain why certain clusters emerge?
- How does collaboration across sectors and geographies work?

3. **Cluster life cycles in the context of path dependency/extension/transformation**

– exploring questions such as:

- What happens “at the extremes” – in phases of early emergence and decline?
- How and why do some clusters get established and grow (vs. others who become locked in)? What are the boundary conditions?
- What is the role of “temporary clusters” (or other forms of governing/facilitating related innovation ecosystems)?



4. **Clusters in the context of open innovation and social networking** – exploring questions such as:

- How do network connections develop over time? (SNA – social network analysis)
- What are different (structured and serendipitous) modes of interaction and open innovation approaches? With what benefits/ results?
- What is the relation between design thinking/ creativity and innovation processes?

- How do patterns of firm interaction and coordination/collaboration compare in different national contexts?

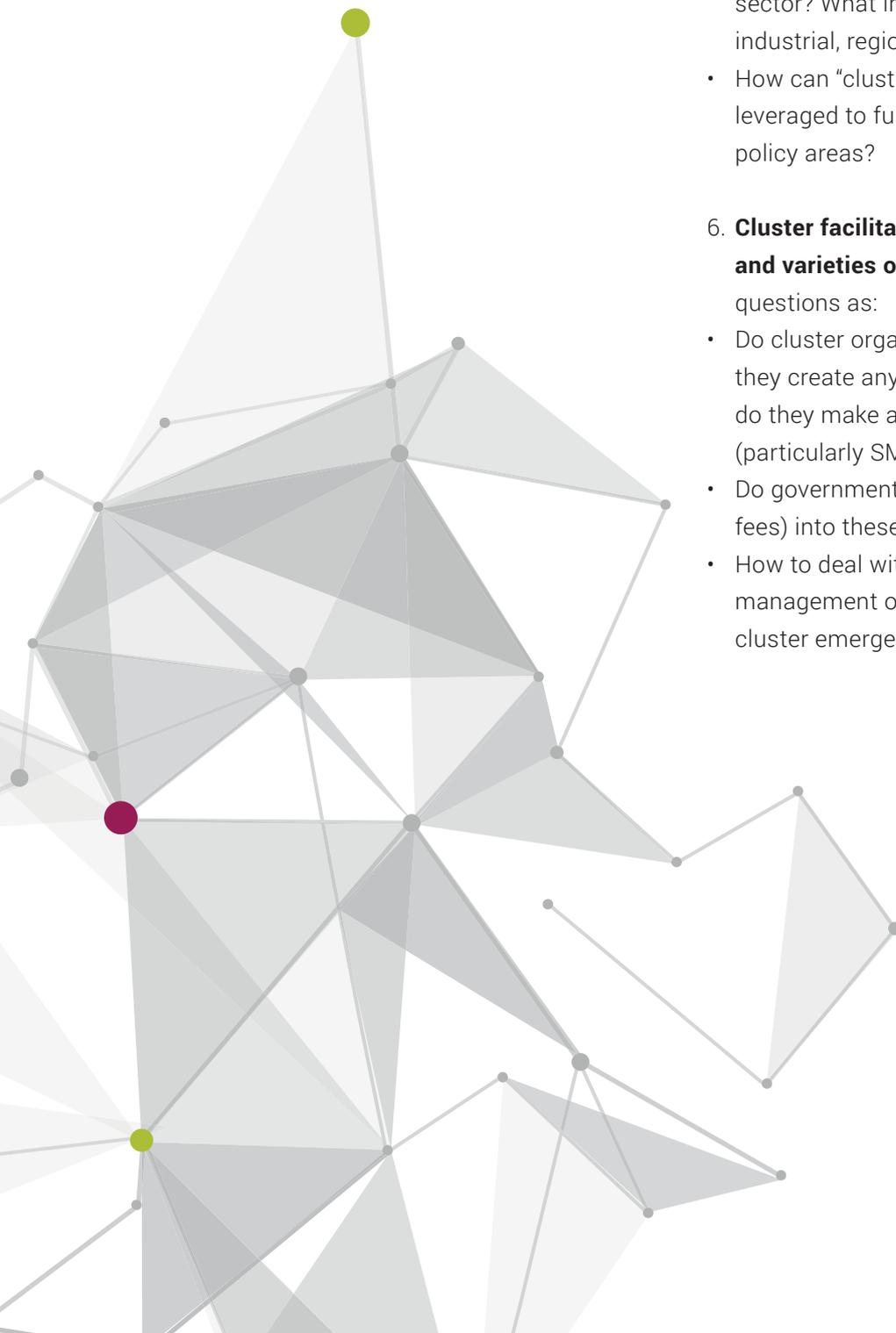
5. **Clusters in the context of public policy**

– exploring questions such as:

- What are the institutions and structures that play a role in facilitating collaborative innovation processes?
- What is the role of public institutions/public sector? What implications for (innovation, industrial, regional development, etc.) policy?
- How can “cluster policies”/programmes be leveraged to fulfill objectives across different policy areas?

6. **Cluster facilitation/governance/management and varieties of capitalism** – exploring such questions as:

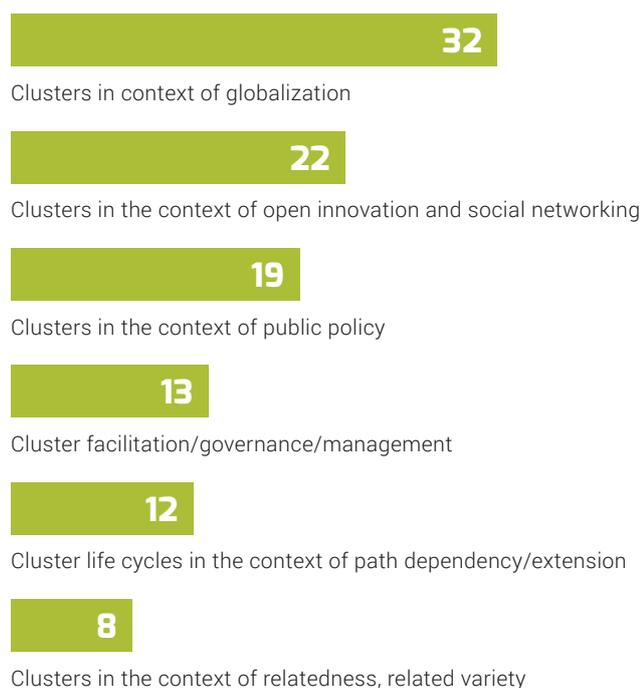
- Do cluster organizations make a difference? Do they create any entrepreneurship/innovation, and do they make a difference to firm performance (particularly SMEs)?
- Do government investments (and/or membership fees) into these facilitating organizations pay off?
- How to deal with policy support and management of activities related to phases of cluster emergence and decline?



WHO IS WORKING ON WHICH RESEARCH THEMES?

As described earlier in the method section, a particular effort was made this year to highlight cluster-related research themes for each of the 52 cluster researchers in Denmark. Individuals were asked to identify in which of the cluster research themes they work – selecting from the six themes listed above, and/or listing others. Results from this feedback are summarized in Figure 2 below.

FIGURE 2: INDIVIDUALS' "AFFILIATION" WITH CLUSTER-RELATED RESEARCH THEMES



Most researchers explore several research themes at the same time (see details below and in profile descriptions), and most themes are being explored by researchers from a range of disciplines and perspectives. This highlights the opportunity for cross-disciplinary research projects (and strengthened collaboration between departments and universities in Denmark).

32 INDIVIDUALS CONDUCT RESEARCH RELATED TO CLUSTERS IN THE CONTEXT OF GLOBALIZATION

Aalborg University

- Kristian H. Reinau
- Christian Nielsen
- Romeo V. Turcan
- Jan Vang
- Brian Vejrum Wæhrens
- Peder Veng Søberg
- Poul Houmann Andersen
- Jesper L. Christensen
- Rasmus Lema
- Bram Timmermans
- Christian R. Østergaard
- Eun Kyung Park
- Søren Kerndrup
- Stine Bylin Bundgaard

Aarhus University

- Philipp Schröder

Copenhagen Business School

- Susana Borrás
- Keld Laursen
- Mark Lorenzen
- Peter Maskell
- Thomas Rønde
- Henrik Sornn Friese
- Kristina Vaarst Andersen
- Peter Ørberg Jensen
- Wolfgang Sofka

University of Copenhagen

- Lars Winther

University of Southern Denmark

- Andreas Cornett
- Torben Bager
- Poul Rind Christensen
- Torben Munk Damgaard
- Susanne Gretzinger
- Mads Bruun Ingstrup
- Uwe Cantner

**23 INDIVIDUALS CONDUCT RESEARCH RELATED TO
CLUSTERS IN THE CONTEXT OF
OPEN INNOVATION AND SOCIAL
NETWORKING**

Aalborg University

- Christian Nielsen
- Christian R. Østergaard

Aarhus University

- Philipp Schröder
- Lars Frederiksen

Copenhagen Business School

- Keld Laursen
- Mark Lorenzen
- Henrik Sornn Friese
- Kristina Vaarst Andersen
- Wolfgang Sofka

Roskilde University

- Jørgen Ole Bærenholdt
- Henrik Toft Jensen
- Jon Sundbo
- Flemming Sørensen

University of Southern Denmark

- Poul Rind Christensen
- Torben Munk Damgaard
- Majbritt Rostgaard Evald
- Susanne Gretzinger
- Kristin Balslev Munksgaard
- Uwe Cantner
- René Chester Goduscheit

Others

- Anders Bille Jensen
- Susanne Jensen
- Jacob Høj Jørgensen

**19 INDIVIDUALS CONDUCT RESEARCH RELATED TO
CLUSTERS IN THE CONTEXT OF
PUBLIC POLICY**

Aalborg University

- Jesper L. Christensen
- Jacob R. Holm

Aarhus University

- Michael S. Dahl

Copenhagen Business School

- Susana Borrás

Roskilde University

- Henrik Toft Jensen

University of Copenhagen

- Christian Wichmann Matthiesen
- Lars Winther

University of Southern Denmark

- Andreas Cornett
- Torben Bager
- Torben Munk Damgaard
- Majbritt Rostgaard Evald
- Susanne Gretzinger
- Kristin Balslev Munksgaard
- Mads Bruun Ingstrup
- Pia Schou Nielsen
- Uwe Cantner
- René Chester Goduscheit

Others

- Stefan Brendstrup
- Susanne Jensen

**14 INDIVIDUALS CONDUCT RESEARCH RELATED TO
CLUSTER FACILITATION/
GOVERNANCE/MANAGEMENT**

Aalborg University

- Brian Vejrum Wæhrens
- Poul Houmann Andersen
- Jesper L. Christensen
- Bram Timmermans
- Stine Bylin Bundgaard

Aarhus University

- Lars Frederiksen

Roskilde University

- Henrik Toft Jensen
- Ada Scupola

University of Southern Denmark

- Torben Munk Damgaard
- Mads Bruun Ingstrup
- Uwe Cantner
- René Chester Goduscheit

Others

- Anders Bille Jensen
- Jacob Høj Jørgensen

**12 INDIVIDUALS CONDUCT RESEARCH RELATED TO
CLUSTER LIFE CYCLES IN THE
CONTEXT OF PATH DEPENDENCY/
EXTENSION/TRANSFORMATION**

Aalborg University

- Jacob R. Holm
- Christian R. Østergaard
- Gert Villumsen
- Eun Kyung Park
- Søren Kerndrup
- Stine Bylin Bundgaard

Aarhus University

- Michael S. Dahl

Roskilde University

- Jon Sundbo

University of Southern Denmark

- Poul Rind Christensen
- Torben Munk Damgaard
- Mads Bruun Ingstrup

Others

- Susanne Jensen

**8 INDIVIDUALS CONDUCT RESEARCH RELATED TO
CLUSTERS IN THE CONTEXT OF RELATEDNESS, RELATED VARIETY
(AND EVOLUTIONARY ECONOMICS)**

Aalborg University

- Romeo V. Turcan
- Jacob R. Holm
- Bram Timmermans
- Christian R. Østergaard

Roskilde University

- Jørgen Ole Bærenholdt
- Jon Sundbo

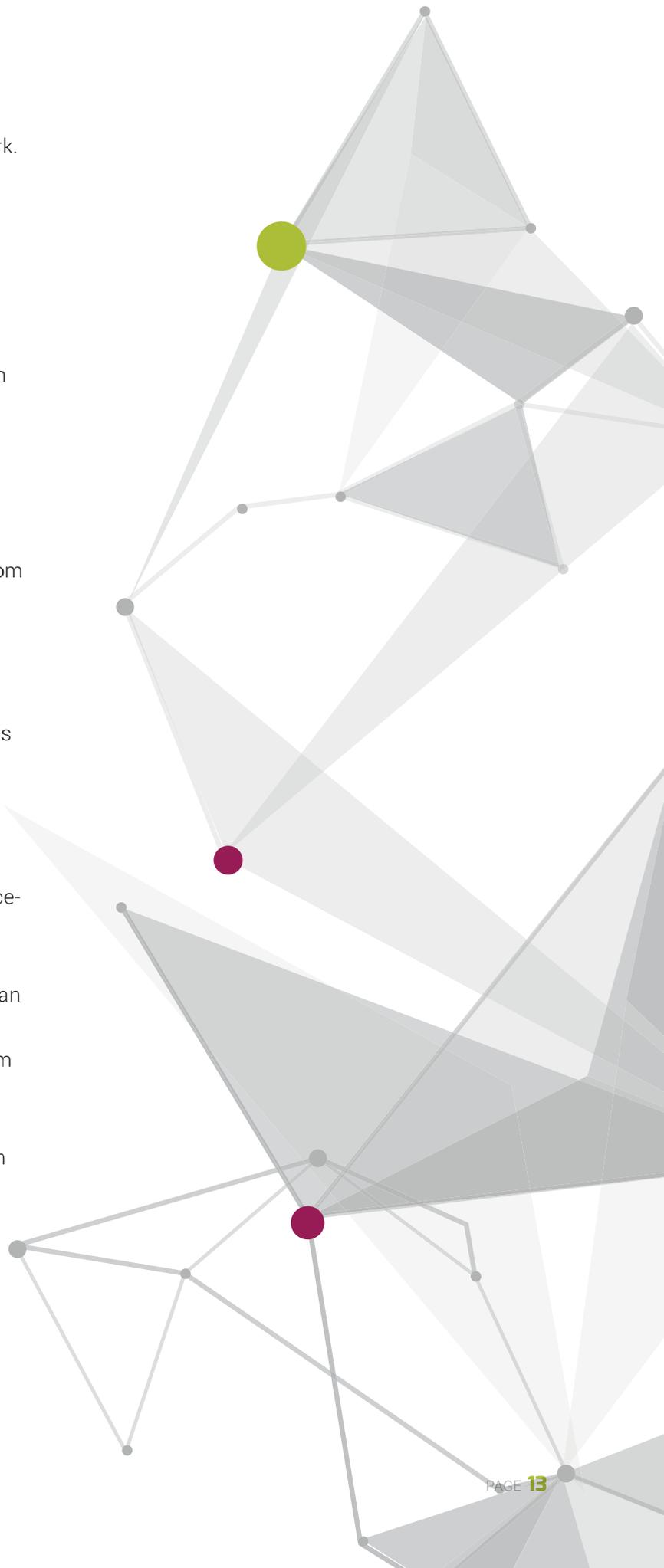
University of Southern Denmark

- Mads Bruun Ingstrup
- Uwe Cantner



In addition to the six “main” cluster research themes, individuals highlighted a number of other cluster-related research themes in which they work. These themes include:

- **Clusters in the context of human capital and economic dynamism** (Lars Winther and Høgni Kalsø Hansen from University of Copenhagen)
- **Clusters in creative industries** (Mark Lorenzen and Kristina Vaarst Andersen from Copenhagen Business School)
- **Collaboration in clusters** (Kristin Balslev Munksgaard from the University of Southern Denmark)
- **Structuring and dynamics of clusters and business networks** (Poul Houman Andersen from Aalborg University)
- **Supply chain clusters and industrial eco-systems** (Brian Vejrum Wæhrens from Aalborg University)
- **Clusters, innovation and development** (Rasmus Lema from Aalborg University)
- **Clusters and innovation** (organization and commercialization of science); **Sector specific cluster effects** (discovery and innovation in life science); and **Firm-level cluster effects** (science-based firms) (Finn Valentin from Copenhagen Business School)
- **SMEs, start-ups and entrepreneurship** (Christian Nielsen from Aalborg University)
- **Clusters in remote regions** (Romeo Turcan from Aalborg University)
- **Clusters in service industries and the experience economy** (Flemming Sørensen from Roskilde University)
- **ICT in clusters’ formation/facilitation** (Ada Scupola from Roskilde University)



CLUSTER RESEARCH IN USE

The 2015 “Overview of Academic Research on Clusters in Denmark” revealed the number of academic researchers and the range of cluster-related research topics that are being explored in Denmark...yet did not address how this research is used by clusters. For this year’s study, we approached clusters¹⁰ to hear about their own experience of “cluster research in use”, requesting information about: which researchers they work with and for what purpose, the outcomes of the collaboration, and how the cluster has made use of the results. In addition to the four cases from clusters, we received one case of cluster research in use by policymakers. These five case stories are presented below.

In the first three cases, external researchers are used to follow and analyze collaborative processes in the cluster over longer periods of time (as action researchers¹¹) – fostering learning and helping the cluster management improve their ways of working. This research approach is typical of the social sciences, and the researchers involved in the cases are based in (or have research backgrounds from) departments of management, business strategy or learning. The research results have been used to improve approaches to cluster facilitation, foster more efficient knowledge sharing within the cluster, and develop a shared value proposition and strategy for the cluster.

The fourth case describes the (short-term) assistance of an external researcher to facilitate the development of a value proposition based on a cluster eco-system mapping. And the final case describes a course for policymakers, organized by cluster researchers.

It should be noted that many clusters have internal capacity for conducting their own analysis – taking

the form of mapping exercises, benchmarking or other analyses, strategies, and management excellence assessments (i.e. ESCA bronze/silver/gold labels) or performance reporting. This “cluster research mapping” report and use cases (below) do not present the wealth of expertise that can be found *within* clusters in Denmark.

CASE #1: STRENGTHENING FACILITATION EFFORTS AT FUTURE FOOD INNOVATION

Jacob Høj Jørgensen (Delendorff Advisory) and René Chester Goduscheit (University of Southern Denmark) have worked with Future Food Innovation over the last year as action researchers – studying the dynamics between different organizations in the cluster and the role that facilitation plays in fostering organizational development processes.

The aim of the research activities was to track and document the role of facilitation and provide insight and input to the management of Future Food Innovation on how their facilitation efforts contribute to strengthened interaction and development processes (between companies and research organizations).

The research was structured as a longer-term, interactive process together with members of the cluster. Existing theoretical insights were used to establish an initial analytical model. This was then developed over time through a process of observing interactions in selected cases, conducting interviews and group workshops/learning forums to analyze findings. The result of the work was the development of a facilitation typology called the RIKO model – a framework for understanding the interplay between two overall types of facilitation of business development processes (the structural and the personal). Future Food Innovation has

¹⁰ At the end of January, Cluster Excellence Denmark sent a “Call for Case Stories – Clusters’ Use of Cluster Researchers”. Four clusters responded to the call for case stories.

¹¹ Action research involves actively participating in a change situation, often via an existing organization, whilst simultaneously conducting research.

made use of the insights from this research in their ongoing facilitation work – adjusting their working processes and hiring new individuals in order to provide better support to companies' development processes. Anchoring in academic research has helped provide legitimacy to these decisions.

The research work and resulting model has been summarized in an academic paper that will be presented at the annual conference of the "Continuous Innovation Network" (11-13 September)¹² – together with Gyda Bay, Innovation Manager at Future Food Innovation.

In the future, the researchers will continue to build on this work by following seven-eight new cases over the next year (including companies who no longer use facilitation support). The aim of the research is to continue to help Future Food Innovation develop a structured/standardized approach to facilitation of business development processes that provides the most useful support to companies. The research results may also be used to inform the (regional and/or national) policy level – helping them design instruments to support business development processes.

For additional information on this case, please contact Jacob Høj Jørgensen (jhj@delendorff.com) at Delendorff Advisory, or Gyda Bay (gb@agropark.dk) at Future Food Innovation.

CASE #2: HELPING TO FOSTER KNOWLEDGE SHARING WITHIN THE ARCTIC BUSINESS NETWORK

Stine Bylin Bundgaard from Aalborg University has been working with the Arctic Business Network (ABN) since 2012 to study how knowledge is developed and shared within networks, as the focus for her PhD dissertation (defended in early July 2016).

The aim of the research was to understand how ABN's members work with producing and sharing knowledge, and development collaborative projects, and how individual motivations and other contextual factors affect the knowledge sharing process.

Stine acted as an action researcher over the course of the last four years – conducting interviews, workshops and other activities with network members, as well as observing and documenting processes over time. The research efforts have helped provide insights on how (and by which members) the network is used as a platform for knowledge sharing – helping ABN to establish categories of membership and examine other organizational perspectives and processes in order to foster efficient knowledge sharing activities and outcomes in the network.

The research has been focused on individual members' perspectives – developing recommendations for how to engage them more strongly. Some findings have been used:

- to influence and develop the ABN's international strategy (lifting the focus and helping to establish common goals between members in Denmark and Greenland);
- to influence the perspective on the geographical scope of the network (beyond Northern Jutland)
- to help ABN understand different members' motivations and frame different types of interactions within the network (helping ABN consider and experiment with other ways of working to foster knowledge sharing within the network)

In the future, Stine hopes that her research can continue to be used both in academic (through e.g. publication of articles) and practical settings (at ABN). Stine believes that it would be beneficial

¹² See <http://www.continuous-innovation.net/events/conferences/2016.html> for more information.

to gather expertise from other disciplines (e.g. from business and management, economics and humanities) in order to investigate the process, structures and outcomes of knowledge development and sharing within networks from various perspectives. *“The research area could really benefit from ‘blending’ across disciplines,”* according to Stine Bundgaard.

For additional information on this case, please contact Stine Bundgaard (sbb@learning.aau.dk) at the Department of Learning and Philosophy at Aalborg University, or Ellen Arnskjold (contact@arcticbusinessnetwork.com), Network Manager of the Arctic Business Network.

CASE #3: **LEVERAGING EXTERNAL EXPERTISE AT THE MARITIME CLUSTER OF FUNEN**

The Maritime Cluster of Funen has made use of two academic researchers (Mads Bruun Ingstrup and Anders Bille Jensen) from the University of Southern Denmark to provide external expertise on cluster development and support the cluster’s efforts in developing a strategy.

Anders Bille Jensen worked with the Maritime Cluster of Funen as part of his PhD project – focused on inter-company collaboration in networks/clusters. Anders gained access to data and interviews with various member companies, and participated in cluster meetings to talk about the business model canvas framework. The cluster benefitted from this by gaining insights into companies’ development plans, their competencies etc. This insight was used as part of the foundation in formulating the cluster’s strategy. In addition, articles (published in newspapers, etc.) helped generate PR for the cluster and its companies.

Anders was also part of an internal workshop to formulate the cluster business model(s) – providing expertise on the value proportion. The business model canvas framework is still used as an important tool in daily operations to talk about collaboration and development for companies.

Mads Bruun Ingstrup has been used as a keynote speaker at a cluster meeting – providing knowledge and inspiration on clusters and their development (causes and effects), as well as broader collaborative ecosystems. Mads' work with the Maritime Cluster of Funen has been primarily as an external expert brought in on an ad hoc basis (rather than conducting a particular research project). Cluster members benefitted by getting a better understanding of what a cluster is and what to expect from a formalized cluster organization.

Mads has also been a student advisor for Mads Skovsgaard Rasmussen (part of the cluster management team) – who has written two reports¹³ on the cluster focused on the facilitating role of the cluster organization over various phases of the cluster life cycle.

Although there are no specific plans, the cluster expects to continue using researchers to provide inspiration and external expertise on various issues of cluster development in the future.

For additional information on this case, please contact Mads Skovsgaard Rasmussen (msras@udviklingfyn.dk or msras@odense.dk), Business Development Coordinator at the Maritime Cluster of Funen.

CASE #4:

COMBINING A LOCAL ECOSYSTEM ANALYSIS WITH INTERNATIONAL RESEARCH EXPERTISE AT THE WELFARE TECH CLUSTER

In 2014, Reg-X (together with other partners) conducted a number of ecosystem analyses of various clusters in the region of Southern Denmark¹⁴ - including the "Ecosystem Analysis of the Welfare Technological Cluster in the Region of Southern Denmark". The analysis provided an

overview of the different sets of actors (companies, knowledge institutions, deal makers, investors, etc.) that influence the development of the cluster – helping the Welfare Tech cluster identify areas of strength and areas of development for strengthened collaboration and dynamic interaction between the actors in the ecosystem.

As part of the development of this analysis, the Welfare Tech Cluster held a series of workshops to map the actors in the ecosystem and their value propositions – with the aim of identifying the common/shared goals and value proposition for the cluster. Dan Eisenberg (dtae@dtae.net), an Assistant Professor of Biocultural Anthropology, Medical Health and Medical Anthropology at the University of Washington (USA), was involved as an external expert and moderator in a number of these workshops.

The result of these efforts was much more than a mapping of the ecosystem and the definition of a common value proposition for the Welfare Tech cluster. The process helped all the actors get to know each other much better – sparking many new personal connections and laying the foundation for new collaborative actions.

For additional information on this case, please contact Karen Lindegaard (Karli@welfaretech.dk), Program Manager of the Welfare Tech Cluster.

CASE #5:

COURSE ON REGIONAL BUSINESS DEVELOPMENT FOR POLICYMAKERS COORDINATED BY THE UNIVERSITY OF SOUTHERN DENMARK

In addition to the cases of clusters' use of research, there are also cases of cluster research in use by policymakers. Following the EU's introduction of the smart specialization concept and the initiation of research and innovation strategies

¹³ One smaller report assessing development opportunities, and a master's thesis that dealt with commitment, company interest and expectations

¹⁴ See <http://clusterecosystem.dk/portfolio-items/cases/>

for smart specialization (RIS3), the Department of Entrepreneurship and Relationship Management at the University of Southern Denmark (USD) designed and implemented a course on regional business development targeting regional (and national) policymakers. The course had the objective of combining theoretical and practical perspectives on the development and implementation of smart specialization strategies – and the relation to overall regional business development efforts.

The course was structured in three, two-day modules:

- Module 1 (3-4 September 2015) focused on regional innovation systems and the broader regional context, and the concept of smart specialisation
- Module 2 (5-6 November 2015) focused on various instruments and approaches that contribute to the development of 'smart specialisation' in regional and national innovation systems (including clusters, entrepreneurship and public-private-innovation)
- Module 3 (14-15 January 2016) focused on the development and implementation of regional business development policy strategies and programmes

Each module was led by Professors from the Danish cluster research community (from USD and other universities)¹⁵, as well as international experts¹⁶ in the field.

In total, 35 policymakers from four out of five Danish regions attended one or more of the course modules – using new insights and a broader network of other policymakers in their everyday work. In the future, USD will continue to offer this

course in collaboration with other Danish cluster researchers. The course will be included in the USD Lifelong Learning portfolio and participants will therefore earn ECTS-points for joining the course.

For additional information on this case, please contact Mads Bruun Ingstrup (mbi@sam.sdu.dk) at the Department of Entrepreneurship and Relationship Management at the University of Southern Denmark.

¹⁵ Including Poul Rind Christensen, Thomas Schøtt, Mads Bruun Ingstrup, and Majbritt Rostgaard Evald (from USD), Jesper Lindgaard Christensen (from Aalborg University), Niels Boje Groth (from University of Copenhagen), Jon Sundbo (from Roskilde University), and Nana Vaaben (from the University College of Copenhagen).

¹⁶ Including Claire Nauwelaers (independent policy analyst), Lisbeth Bahl Poulsen (DG GROW, EU Commission), Kjell Nilsson (NordRegio), and Finn Slumstrup (author)

DESCRIPTIVE PROFILES

OF UNIVERSITY DEPARTMENTS AND INDIVIDUALS



AALBORG UNIVERSITY



AALBORG UNIVERSITY
DENMARK

DEPARTMENT OF ARCHITECTURE, DESIGN AND MEDIA TECHNOLOGY

The **Department for Architecture, Design, and Media Technology** is a multi-campus department with branches in Aalborg, Copenhagen and Esbjerg. The department is unique in the Danish context as it collects disciplines within architecture, design, media and technology – providing the foundation for a powerful new field of knowledge and development of competence within the field of design with a human focus.

The department vision is to utilize and investigate the interplay between creativity and technology for development of new growth areas in research and education, paving the way for new technologies and solutions that take the user experience fully into account. The department has 140 researchers and PhD students and participates in a broad range of national and international projects.

Kristian H. Reinau (khr@civil.aau.dk), is Associate Professor within the Department of Civil Engineering, conducting research on the use of tracking data and big data in the transport field. Cluster-related research themes include clusters in the context of globalization. Examples of publications related to clusters include:

- Reinau, K.H., and Harder, H. (2016). "Identification of Clusters in Travel Patterns using Smart Card Data." Paper presented at 11th ITS European Congress, Glasgow, United Kingdom.
- Østergaard, C.R., Reinau, K.H., and Park, E.K. (2016). "The Dual Role of Multinational Corporations in Cluster Evolution: When You Dance with the Devil, You Wait for the Song to Stop". In Belussi, F., Hervás-Oliver, J-L. (eds.), *Unfolding the Cluster Evolution*, Routledge (Regions and Cities Series): London and New York.
- Timmermans, B. and Reinau, K.H. (2014). "Killing

Cinderella: A case study on agency problems in distributed R&D". Paper presented at Geography of Innovation Conference, Utrecht, Holland.

DEPARTMENT OF BUSINESS AND MANAGEMENT – BUSINESS MODEL DESIGN CENTER

The **Department of Business and Management** is a cross-faculty department linking together The Faculty of Social Sciences and The Faculty of Engineering and Science. The department was formed January 1st 2011 through a merger of The Department of Business Studies and The Center for Industrial Production (CIP). There are 13 research groups or research centers at the department (of which four are included here).

The research and teaching of the department is oriented towards business administration, economics and industrial production including: organization and strategy, accounting, auditing, international business and marketing, economics, innovation, entrepreneurship, operations management and supply chain management. In both teaching and research, the department combines theory and practice and emphasizes collaboration with companies and public sector organizations.

The **Business Model Design Center** (BMDC) research group constitutes the first interdisciplinary center for Business Model research in the world. Their mission is to translate all research into applicable tools for the world's practitioners. BMDC functions as a natural hub between the technology-based research environments and the business oriented research environments.

All activities are focused on the core activity: Business Model Design, in the processes of entrepreneurship, commercialization, and internationalization. A major part of the research is done with real companies. Affiliates come

from numerous professional and geographical backgrounds and interests.

Christian Nielsen (chn@business.aau.dk), is Professor with Specific Responsibilities at the Business Model Design Center. His research profile lies at the intersection of management accounting, business models and intellectual capital and relates to issues of accountability, performance measurement and network-based business models. Cluster-related research themes include clusters in the context of globalization, clusters in the context of open innovation and social networking, as well as SME's, start-ups and entrepreneurship. Recent publications related to clusters include:

- Nielsen, C. (2016). Getting value for money from your Science Park. Accepted and forthcoming in *Public Money and Management*.
- Taran, Y., Nielsen, C., Thomsen, P., Montemari, M., and Paolone, F. (2015). "Business Model Process Configurations: A Mapping Tool for Fostering Innovation.". R&D Management Conference, Pisa, 2015.
- Lund, M., & Nielsen, C. (2014). The evolution of network-based business models illustrated through the case study of an entrepreneurship project, *Journal of Business Models*, Vol. 2, No. 1., pp. 105-121.
- Nielsen, C. & K. Cappelen, (2014). Exploring the Mechanisms of Knowledge Transfer in University-Industry Collaborations: A Study of Companies, Students and Researchers. *Higher Education Quarterly*, Vol. 68, No. 4, pp. 375–393.

Romeo V. Turcan (rvt@business.aau.dk) is Associate Professor at the Business Model Design Center and the International Business Centre. His research interests relate to the creation and legitimation of new sectors and organizations; de-internationalization; international entrepreneurship; cross-disciplinary theory building; and organization

studies. Cluster-related research themes and activities include research on late globalization; emergence of new industries and clusters in remote regions. Additional thoughts are presented in the Theory Building Research Perspectives (TBRP) blog (www.tbrp.aau.dk/tbrp-perspectives/). Recent publications include:

- Boujarzadeh, B., Turcan, R. V., & Dholakia, N. (2016). Late Globalization and Evolution and Metamorphoses of Industries: Evidence from Danish Textile and Fashion Industry. In DRUID 2016 20th Anniversary Conference, CBS-Copenhagen, June 13-15.
- Turcan, R. V. (2016). Recent casualties of late globalization. TBRP Perspectives, (www.tbrp.aau.dk/tbrp-perspectives/)
- Turcan, R. V., & Fraser, N. (2016). An Ethnographic Study of New Venture and New Sector Legitimation: Evidence from Moldova. *International Journal of Emerging Markets*, 11(1).
- Turcan, R. V. (2013). Growth challenges in small manufacturing ventures from emerging economies: The evidence from Moldova. In G. Tesar, & J. Bodin (Eds.), *Marketing management in geographically remote industrial clusters: Implications for business-to-consumer marketing*. (pp. 387-404). World Scientific Publishing Co Pte Ltd.

DEPARTMENT OF BUSINESS AND MANAGEMENT – CENTRE FOR INDUSTRIAL PRODUCTION

The **Center for Industrial Production (CIP)** was established in 1999 and serves as a national center of excellence in industrial manufacturing. CIP is dedicated to initiating and coordinating research in this area – and to developing the necessary competencies and capabilities to increase the future competitive strength of Danish industry. The research staff at CIP are involved in teaching and supervising undergraduate and

graduate students in various engineering degree programmes.

Jan Vang (jan@business.aau.dk), is Associate Professor at the Centre for Industrial Production. His research interests include social network analysis and inter-organizational collaboration, globalization of innovation, SMEs/entrepreneurial companies and the importance of the network configuration for their innovative performance in a global perspective. Cluster-related research themes include clusters in the context of globalization. A recent publication related to clusters and globalized innovation processes is:

- Vang, J. And Jakobsen, H. (2013). "The state and creative clusters : Lessons on building a film cluster from scratch". In *International Journal of Business and Globalisation*, Vol. 11, No. 3, p. 310 - 332.

Brian Vejrum Wæhrens (bvw@business.aau.dk), is Professor with Specific Responsibilities at the Centre for Industrial Production. His research interests include organizational aspects of globally distributed operations activities, and its link with incremental improvements and more radical development initiatives within the global organization and at the network level (combining operations/supply chain management, organizational development, and strategy theories). Cluster-related research themes include clusters in the context of globalization; cluster facilitation/governance/management and varieties of capitalism; as well as industrial ecosystems and supply chain clusters. Recent publications related to clusters include:

- Sajadirad, S., Lassen, A.H., and Wæhrens, B. (2016). "From static to dynamic use of knowledge transfer objects and its effect on innovation performance". *Proceedings of the 23rd Innovation and Product Development*

- Management Conference, Glasgow, UK.
- Mykhaylenko, Wæhrens, B., and Slepnirov, D. (2015). "Impact of distance on the network management capability of the home base firm." Paper presented at 22nd International EurOMA Conference, Neuchâtel, Switzerland.
 - Mykhaylenko, Wæhrens, B., and Johansen, J. (2015). "Managing Evolving Global Operations Networks". In proceedings from Advances in Production Management Systems (APMS) 2015, Tokyo, Japan.

Peder Veng Søberg (pvs@business.aau.dk), is Assistant Professor at the Centre for Industrial Production. His research interests include global production networks and supply chains. Cluster-related research themes include clusters in the context of globalization. Recent publications related to clusters include:

- Søberg, P.V., Johansen, J., and Wæhrens, B. (2015). "Værdikædens udfordringer og konfiguration : Den vertikale systemklynge". In Wæhrens, B. (ed.) Supply Chain Udvikling for den reflekterende praktiker, Vol.11, p. 185-205. Aalborg Universitetsforlag.
- Søberg, P.V., Høgh, C. (2013). Business Models in Networks: ICI Project Report. Aalborg.
- Søberg, P.V., Han, Y. (2011). "Collaborative Approaches in Emerging Markets". In Proceedings of the 27th EIBA Annual Conference: Taking International Business to the Next Level – Emerging Issues, Strategies and Economies.

DEPARTMENT OF BUSINESS AND MANAGEMENT – INNOVATION, KNOWLEDGE AND ECONOMIC DYNAMICS

The **Innovation, Knowledge and Economic Dynamics** (IKE) research group was established in 1977 and gradually evolved into a long-term research program in innovation and industrial dynamics. The focus of the research group is on

innovation, knowledge and economic dynamics at different levels of aggregation: the firm level, the industry level, the macro level, and different geographic levels of aggregation. Common for the approach is that economic development is seen as knowledge driven and that knowledge creation and innovation are seen as reflecting processes of interactive learning within systemic frameworks. These contextual features of different sectors, geographical localities and firms - and the institutions within them defining the rules, norms and behaviors of actors - are seen as decisive for an appropriate understanding of how innovation is developed, disseminated and used in the economy. The context, or innovation system, is viewed broadly, thus spanning wider than the traditional triple helix model. Several IKE-members are actively engaged in policy discussions and take part in different phases of policy making processes. Additionally, the IKE group has a long tradition of interaction with leading universities from all over the world.

Poul Homan Andersen (poa@business.aau.dk) is Professor at IKE, and PhD Coordinator within the Department of Business and Management. His research focus is on business marketing, innovation, supplier relationships and strategies, inter-organizational coordination, and globalization of value chains. Cluster-related research themes include clusters in the context of globalization; cluster facilitation/governance/management and varieties of capitalism; as well as structuring and dynamics of clusters and business networks. Recent publications related to clusters include:

- Andersen, P. H., & Medlin, C. J. (2016). Transient commitments and dynamic business networking. In: Industrial Marketing Management (forthcoming).
- Andersen, P., and Bøllingtoft, A. (2011). "Cluster-based global firms' use of local capabilities". In:

Management Research Review, Vol. 34, No. 10, p. 1087-1106.

- Andersen, P., Christensen, P.R., and Damgaard, T. (2009). "SMEs global sourcing and relationship norms". In: Industrial Marketing Management. Vol. 38, No. 7, p. 814-824.
- Andersen, P. H. (2006). "Regional clusters in a global world: Production relocation, innovation, and industrial decline." In: California Management Review, Vol. 49, No. 1, p. 101-122.

Jesper L. Christensen (jlc@business.aau.dk) is Associate Professor and Manager of the Centre for Regional Development Studies. His research interests are in the areas of business economics, innovation finance, innovation and economic geography. Cluster-related research themes include clusters in the context of globalization; cluster facilitation/governance/management and varieties of capitalism; and clusters in the context of public policy. Recent publications related to clusters include:

- Christensen, J.L., Drejer, I., Holm, J.R., and Andersen, P. (2016). "Innovation Policy: How can it best make a difference?". In Industry and Innovation, 04.2016.
- Christensen, J.L. and Fagerberg, J. (2016). "The emergence of innovation policy as a field: The international context and the Danish experience". In Baden, A. and Block, C. (eds.), The History of Danish Innovation Policy, Ministry of Higher Education and Science.
- Christensen, J.L. and Stoerring, D. (2012). "Facilitating Cluster Evolution in Peripheral Regions: The Role of Clusterpreneurs". In Interactive Learning for Innovation: A Key Driver within Clusters and Innovation Systems ed. Bjørn Asheim and M. Davide Parrilli. Palgrave Macmillan, Basingstoke, UK, p. 137-160.
- Christensen, J.L., Dahl, M., Eliassen, S.Q., Nielsen, R.N. and Østergaard, C.R. (2011). "Patterns and

Collaborators of Innovation in the Primary Sector : A Study of the Danish Agriculture, Forestry and Fishery Industries". In Industry and Innovation, Vol. 18, No. 2, p. 203-225.

Jacob R. Holm (jrh@business.aau.dk) is Associate Professor at IKE, with research focused on the importance of geography for creative destruction of skills, the importance of policy and institutions for work organization, and evolutionary economic theory. Cluster-related research themes include: clusters in the context of relatedness, related variety (and evolutionary economics); cluster life cycles in the context of path dependency/extension/transformation; and clusters in the context of public policy. Recent publications related to clusters include:

- Holm, J.R., Østergaard, C.R., and Olesen, T.R. (forthcoming 2017). "Destruction and Reallocation of Skills Following Large Company Closures". Journal of Regional Science.
- Holm, J.R. and Østergaard, C.R. (2016). "When regional development is path-independent: The emergence of new economic activities." Paper presented at the 5th EurKind GCW Conference. June 2016, Valencia, Spain.
- Christensen, J.L., Drejer, I., Holm, J.R., and Andersen, P. (2016). "Innovation Policy: How can it best make a difference?". In Industry and Innovation, 04.2016.
- Holm, J.R. and Østergaard, C.R. (2015). "Regional Employment Growth, Shocks and Regional Industrial Resilience : A Quantitative Analysis of the Danish ICT Sector". In Regional Studies, Vol. 49, No. 1, p. 95-112.

Rasmus Lema (lema@business.aau.dk) is Associate Professor at IKE, with research focused on development strategies and the globalization of innovation. Cluster-related research themes include: clusters in the context of globalization, innovation

and development. Recent publications related to clusters include:

- Lema, R. and Vang, J. (forthcoming). "Collective Efficiency: A Prerequisite for Cluster Development?" In: *World Review of Entrepreneurship, Management and Sustainable Development*.
- Lema, R., Quadros, R. and Schmitz, H. (2015). "Reorganising global value chains and building innovation capabilities in Brazil and India". In: *Research Policy*, Vol. 44, No. 7, p. 1376-1386.
- Lema, R. (2009). "Bangalore's Software Cluster in the 1990s". In: R. Kumar & M. Patibandla (eds.), *Institutional dynamics and the evolution of the Indian economy* (pp. 63-82). New York: Palgrave Macmillan.

Bram Timmermans (bram@business.aau.dk or bram.timmermans@nhh.no) is currently employed as Associate Professor at the Department of Strategy and Management of the Norwegian School of Economics, but maintains an affiliation at AAU, where he is Associate Professor at IKE, as well as member of the EOB research group (above). His main research interest lies within the field of innovation and entrepreneurship, new venture team development and performance, labor mobility, team mobility, strategic human resource development, employee diversity, organization theory, relatedness and related variety, and industrial dynamics. Cluster-related research themes include clusters in the context of globalization; clusters in the context of relatedness, related variety (and evolutionary economics); and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Timmermans, B. and Reinau, K.H. (2014). "Killing Cinderella: A case study on agency problems in distributed R&D". Paper presented at Geography of Innovation Conference, Utrecht, Holland.

- Timmermans, B. and Boschma, R. (2014). "The effect of intra- and interregional labour mobility on plant performance in Denmark: The significance of related labour inflows". In *Journal of Economic Geography*, Vol. 14, No. 2, p. 289-311.
- Østergaard, C.R., Timmermans, B. And Kristinsson, K. (2011). "Does a different view create something new? The effect of employee diversity on innovation". In *Research Policy*, Vol. 40, No. 3, p. 500-509.

Christian R. Østergaard (cro@business.aau.dk) is Associate Professor of Economics, Innovation and Regional Development. He is member of DRUID Executive Committee as the organizer of the yearly DRUID Academy PhD. conference (see druid.dk). His current research activities focus on how offshoring affects firms' innovative performance; the link between employee diversity and innovation; the evolution of industries and regional industrial clusters; decline and resilience of regional clusters; mobility of people from companies that close down. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of relatedness, related variety (and evolutionary economics); cluster life cycles in the context of path dependency/extension/transformation; and clusters in the context of open innovation and social networking. Recent publications related to clusters include:

- Østergaard, C.R., Reinau, K.H., and Park, E.K. (2016). "The Dual Role of Multinational Corporations in Cluster Evolution: When You Dance with the Devil, You Wait for the Song to Stop". In Belussi, F., Hervás-Oliver, J-L. (eds.), *Unfolding the Cluster Evolution*, Routledge (Regions and Cities Series): London and New York.
- Østergaard, C.R. and Park, E.K. (2015). "What Makes Clusters Decline? A Study on Disruption and Evolution of a High-Tech Cluster in

- Denmark". In *Regional Studies*, Vol. 49, No. 5, p. 834-849.
- Østergaard, C.R. and Park, E.K. (2013). "Knowledge intensive entrepreneurship from firm exit in a high-tech cluster: The case of the wireless communications cluster in Aalborg, Denmark". In: eds. McKelvey, M. and Lassen, A. H. *How Entrepreneurs Do What They Do: Case Studies of Knowledge Intensive Entrepreneurship*, Edward Elgar Publishing, Incorporated.
 - Dahl, M., Østergaard, C.R. and Dalum, B. (2010). "Emergence of regional clusters: the role of spinoffs in the early growth process". In: *The Handbook of Evolutionary Economic Geography*, eds. Boschma, R, and Martin, R. Cheltenham, UK: Edward Elgar Publishing, p. 205-221.

Gert Villumsen (gv@aub.aau.dk) is Associate Professor at IKE, with research focused on specialization patterns and competitiveness. Cluster-related research themes include: cluster life cycles in the context of path dependency/extension/transformation. Publications related to clusters include:

- Dalum, B., Pedersen, C., Østergaard, C.R., and Villumsen, G. (2005), "Technological Life-Cycles: Lessons From a Cluster Facing Disruption". In *European Urban and Regional Studies*, Vol. 12, No. 3, p. 229-246.

Eun Kyung Park (eunkyung@business.aau.dk), is Assistant Professor at IKE. Cluster-related research themes include: clusters in the context of globalization; and cluster life cycles in the context of path dependency/extension/transformation. Recent publications related to clusters include:

- Østergaard, C.R., Reinau, K.H., and Park, E.K. (2016). "The Dual Role of Multinational Corporations in Cluster Evolution: When You Dance with the Devil, You Wait for the Song to

Stop". In Belussi, F., Hervás-Oliver, J-L. (eds.), *Unfolding the Cluster Evolution*, Routledge (Regions and Cities Series): London and New York.

- Østergaard, C.R. and Park, E.K. (2015). "What Makes Clusters Decline? A Study on Disruption and Evolution of a High-Tech Cluster in Denmark". In *Regional Studies*, Vol. 49, No. 5, p. 834-849.
- Park, E.K. (2015). *The Globalization of Value chain activities, Knowledge dynamics, and Innovation: An empirical study on Denmark*. PhD serien, Aalborg Universitetsforlag.
- Østergaard, C.R. and Park, E.K. (2013). "Knowledge intensive entrepreneurship from firm exit in a high-tech cluster: The case of the wireless communications cluster in Aalborg, Denmark". In: eds. McKelvey, M. and Lassen, A. H. *How Entrepreneurs Do What They Do: Case Studies of Knowledge Intensive Entrepreneurship*, Edward Elgar Publishing, Incorporated.

DEPARTMENT OF DEVELOPMENT AND PLANNING

The **Department of Development and Planning** includes development and planning in a broad sense, and thereby it reaches from the social science aspects of development (technological, environmental, international and administrative aspects), to physical planning, sector planning, land management, and to technical subjects such as road engineering, road safety, surveying and mapping. The department belongs to the Faculty of Engineering and Science. Within the Department, there are seven research centers within the areas of: spatial planning; environmental assessment; health informatics; innovative fisheries management; design, innovation and sustainable transition; problem-based learning; and blue governance.

Søren Kerndrup (soeren@plan.aau.dk) is Associate Professor within the Department of Development and Planning, within the field of sustainability, innovation and policy. His research focuses on networks in regions, and regional entrepreneurialism. Cluster-related research themes include: clusters in the context of globalization; and cluster life cycles in the context of path dependency/extension/transformation. Recent publications related to clusters and innovation networks (and sustainability) include:

- Johansen, F.R. and Kerndrup, S. (2015). "Co-creation of knowledge and actor constellations in a cluster formation process". In Proceedings of the 8th International Conference on Engineering and Business Education, p. 47-52.
- Hermann, R.R., Mosgaard, M. and Kerndrup, S. (2015). "The function of intermediaries in collaborative innovation processes: Retrofitting a Danish small island ferry with green technology." In International Journal of Innovation and Sustainable Development, 13.10.2015.
- Lehmann, M., Kerndrup, S., Smink, C., and Mosgaard, M. (2007). "Klynger : et paradoks i en globaliseret verden". In Det Kongelige Danske Geografiske Selskabs årsskrift for 2007 ed. Malene Kauffmann Hansen; Ole Mertz. København : Det Kongelige Danske Geografiske Selskab, p. 55-57.

DEPARTMENT OF LEARNING AND PHILOSOPHY

The **Department of Learning and Philosophy** operates on an interdisciplinary, cross-faculty basis. The mission of the Department is to do research, development and teaching in the areas of education, learning and philosophy, within the educational system as well as in public and private organisations. The Department is present at all three Campus areas of Aalborg University: Aalborg, Copenhagen and Esbjerg. The Department aims

to strengthen the connections between research, development and professional practice, and enters into cooperation with public and private companies and educational institutions, in Denmark and worldwide. Main research areas are: pedagogical innovation and didactics; organizational learning; education and evaluation policy; and philosophy, ethics, anthropology and innovation.

Stine Bylin Bundgaard (sbb@learning.aau.dk) is a Research Assistant within the Centre for Learning in Organizations within the Department of Learning and Philosophy. Cluster-related research themes include: clusters in the context of globalization; cluster life cycles in the context of path dependency/extension/transformation; and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Bundgaard, S.B. (2016), Learning and Knowledge Sharing Across Cultural Differences – A Qualitative Study of an Arctic Business Network, PhD dissertation.
- Bundgaard, S.B. (2012). "Netværkssamarbejde mellem Nordjylland og Grønland : et praksisnært PhD-projekt". In: UGLEN: 2012(2), 1 February 2012, p. 23-24.

AARHUS UNIVERSITY



AARHUS
UNIVERSITY

DEPARTMENT OF ECONOMICS AND BUSINESS

The **Department of Economics and Business**

Economics is part of Aarhus School of Business and Social Sciences, one of the four faculties at Aarhus University. The department employs approximately 140 academic staff and 70 PhD students. The Department teaches and carries out research into microeconomics, macroeconomics, econometrics, finance and accounting, as well as operations research. The department has a strong international focus in its research and degree programmes.

Philipp Schröder (psc@econ.au.dk) is Professor within the Department of Economics and Business Economics and is Director of the Tuborg Research Centre for Globalization and Firms. His research addresses the topics of: International economics, Industrial economics, Globalization, European economic integration, Transition economics, Public economics and green regulation, and Economics of open source software. Cluster-related research themes include: clusters in the context of globalization; and clusters in the context of open innovation and social networking. Recent publications related to clusters include:

- Choquette, E., Rask, M., Schröder, P. and Sala, D. (2014). "Born Globals; Is there fire behind the smoke." Paper presented at Academy of International Business, Vancouver, Canada.
- Dilling-Hansen, M., Madsen, E.S., Schröder, P., Smith, V. (2010). "Export performance and Investment in R&D". Paper presented at EARIE Conference, Istanbul, Turkey.
- Kure, N., Nørreklit, H., Linneberg, M.S., Schröder, P. (2010). "The local construction of the researcher in the global context of performance culture". Paper presented at EGOS 2010 Colloquium, Lissabon, Portugal.
- Schröder, P., Görg, H., Bitzer, J. (2007). "International outward knowledge spillovers : A

follow-up on Samuelson's controversial paper". Paper presented at EEA/ESAM, European Economic Association, Annual Conference, Budapest, Hungary.

DEPARTMENT OF MANAGEMENT

The **Department of Management** is part of Aarhus School of Business and Social Sciences, one of the four faculties at Aarhus University. The department employs approximately 120 researchers, PhD students, research associates and 14 administrative staff. The Department of Management teaches and carries out research on management and marketing – with an international focus. Within the Department, there are nine research groups within the areas of: business-to-business marketing management; entrepreneurship (iCARE); innovation management; information systems; management and leadership; customer relations in the food sector; marketing and sustainability; quantitative analytics; and organizational behavior and strategy.

Lars Frederiksen (l.frederiksen@mgt.au.dk) is Professor and Head of the Innovation Management Research Group within the Department of Management. Lars specializes in the management of innovation and technology with particular emphasis on innovation strategies, knowledge creation and search, entrepreneurship, user innovation, social networks and communities, idea management, and capability development in project-based organizations. Cluster-related research themes include: clusters in the context of open innovation and social networking; and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Van den Ende, J., Frederiksen, L., and Prencipe, A. (2014). "The front end of innovation: Organizing search for ideas". In *Journal of Product Innovation Management*.

- Hellerstedt, K., Wennberg, K., & Frederiksen, L. (2014). "University Knowledge Spillovers and Regional Start-up Rates: Supply and Demand-side Factors". In: *Academic Entrepreneurship: Creating an Entrepreneurial Ecosystem (Advances in Entrepreneurship, Firm Emergence and Growth, Volume 16)* Emerald Group Publishing Limited, 16, p. 137-168.
- Autio, E., Dahlander, L., & Frederiksen, L. (2013). "Information exposure, opportunity evaluation, and entrepreneurial action: An investigation of an online user community". In: *Academy of Management Journal*, Vol. 56, No. 5, p. 1348-1371.
- Dahlander, L. and Frederiksen, L. (2012). "The core and cosmopolitans : A relational view of innovation in user communities". In *Organization Science*, Vol. 23, No. 4, p. 988-1007.

Michael S. Dahl (msd@mgt.au.dk) is a Professor of the Economics of Entrepreneurship and Organizations. His research focuses on broad issues related to the organization and performance of new businesses, economic geography, migration, population ecology and health outcomes. Cluster-related research themes include cluster life cycles in the context of path dependency/extension/transformation and clusters in the context of public policy. Recent publications related to clusters include:

- Sorenson, O. and Dahl, M. (2016, forthcoming), "Geography, Joint Choices and the Reproduction of Gender Inequality". In *American Sociological Review*, Accepted 4 March 2016.
- Dahl, M. and Sorenson, O. (2012). "Home Sweet Home: Entrepreneurs' Location Choices and the Performance of their Ventures". In *Management Science*, Vol. 58, No. 6, p. 1059-1071.
- Dahl, M. and Sorenson, O. (2010), "The Social Attachment to Place". In: *Social Forces*, Vol. 89, No. 2, p. 633-658.

COPENHAGEN BUSINESS SCHOOL



DEPARTMENT OF BUSINESS AND POLITICS

The **Department of Business and Politics** (DBP) is one of 15 departments at Copenhagen Business School, and focuses on the institutional challenges presented to us regularly due to the interaction between business and society. DBP was established 1st of January 2011 by turning the International Center for Business and Politics (CBP) into a department, and currently has more than 50 staff (including more than 10 PhD students) and 17 scholars from Europe, North America, Asia and Australia who are affiliated with the Department as visiting professors to maintain a constant dialogue with leading international researchers.

Susana Borrás (sb.dbp@cbs.dk) is Professor on innovation and governance. As a social scientist expert on public policy, two of her leading questions are, what governments can do to foster and to improve socio-technical innovation in the economy, and what makes some decisions regarding socio-technical and innovation change to be democratically legitimate and others not. Her main attention is in the European Union, both at the supra-national level as well as national and local (cluster) levels. In particular, she studies the complex interactions between public and private realms, which have been recently called 'new modes of governance'. Cluster-related research themes include: clusters in the context of globalization; and clusters in the context of public policy. Recent publications related to clusters include:

- Borrás, S. and Seabrooke, L. (editors) (2015). Sources of National Institutional Competitiveness: Sensemaking in Institutional Change. Oxford: Oxford University Press 2015, 208 pages.
- Borrás, S. and Edler, J. (editors) (2014). The Governance of Socio-Technical Systems: Explaining Change. Cheltenham: Edward Elgar

Publishing, Incorporated 2014, 232 pages.
(Eu-SPRI Forum on Science, Technology and Innovation Policy)

- Borrás, S. and Haakonsson, S. (2011). "The Impact of Global Innovation Networks in National Systems: The Case of Danish Food Industry". In: *Global Innovation Networks: Challenges and Opportunities for Policy*. ed. Susana Borrás. Brussels: European Commission 2011, p. 99-120. (INGINEUS Project Deliverables, No. D10.1)
- Borrás, S. and Tsagdis, D. (2008). *Cluster Policies in Europe: Firms, Institutions and Governance*. Cheltenham: Edgar Elgar publishing.

DEPARTMENT OF INNOVATION AND ORGANIZATIONAL ECONOMICS

The **Department of Innovation and Organizational Economics** (INO) is a strategy-oriented department focused on researching the development of society's economic organization – i.e. how and why activities are organised in markets, companies, industries and other "institutions". INO has a number of research projects related to various aspects of open innovation, and has already achieved high standing in this research topic. The department has a total staff of some 40 people, including 10 full professors and about 13 assistant/associate professors. The group of researchers is not only highly qualified (evidenced by both publications and review activities), but also very collaborative. This pertains to internal support and co-authorships, as well as to external relations to prominent international researchers.

Keld Laursen (kl.ino@cbs.dk), Professor, conducts research on localized social capital, researcher mobility, external partner search and collaboration – and their relation to innovation. He is an editor of *Research Policy* and the Program Chair of the Academy of Management's Technology Innovation Management Division. Cluster-related research themes include: clusters in the context

of globalization; and clusters in the context of open innovation and social networking. Recent publications related to clusters and collaborative innovation processes include:

- Lakemond, N., Bengtsson, L., Laursen, K. and Tell, F. (2016). "Match and Manage: The Use of Knowledge Matching and Project Management to Integrate Knowledge in Collaborative Inbound Open Innovation". In *Industrial and Corporate Change*, Vol. 25, No. 2, p. 333-352.
- Laursen, K. and Salter, A. (2014). "The Paradox of Openness: Appropriability, External Search and Collaboration". In *Research Policy*, Vol. 43, No. 5, p. 867-878.
- D'Agostino, L.M., Laursen, K. and Santangelo, G. (2013). "The impact of R&D offshoring on the home knowledge production of OECD investing regions". In: *Journal of Economic Geography*, Vol. 13, No. 1, p. 145-175.

Mark Lorenzen (ml.ino@cbs.dk) is Professor of Innovation, Entrepreneurship and Industrial Dynamics. His research is in the field of industrial dynamics, with a special focus on the relationships between innovation and the economic organization of the market in networks, projects, and clusters currently within the creative industries. He is member of the executive committee of DRUID and editor-in-chief of *Industry and Innovation*, series editor of the *Routledge Studies in Industrial Dynamics*, and editor of *The Oxford Handbook of Creative Industries*. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of open innovation and social networking; as well as clusters in creative industries. Recent publications related to clusters include:

- Lorenzen, M., Maurer, I., and Staber, U. (2012). "Space and Inter-Organizational Relations: Introduction". In: *Industry and Innovation*, Vol. 19, No. 3 (6), p. 181-186.

- Lorenzen, M. and Mudambi, R. (2012). "Clusters, Connectivity and Catch-Up: Bollywood and Bangalore in the Global Economy". In: *Journal of Economic Geography*.
- Foss, N. and Lorenzen, M. (2009). "Towards an Understanding of Cognitive Coordination: Theoretical Developments and Empirical Illustrations". In: *Organization Studies*, Vol. 30, No. 11, p. 1201-1226.
- Lorenzen, M. and Andersen, K.V. (2009). "Centrality and Creativity: Does Richard Florida's Creative Class Offer New Insights Into Urban Hierarchy?". In: *Economic Geography*, Vol. 85, No. 4, p. 363-390.

Peter Maskell (pm.ino@cbs.dk), Professor, conducts research in the fields of: Innovation, Industrial Organization and Dynamics; Economic Geography, Location Economics; Inter-firm Cooperation and Market Forms; Institutional Evolution and Competitiveness; and Global knowledge pipelines and the role of clusters. Cluster-related research themes include: clusters in the context of globalization. Recent publications related to clusters include:

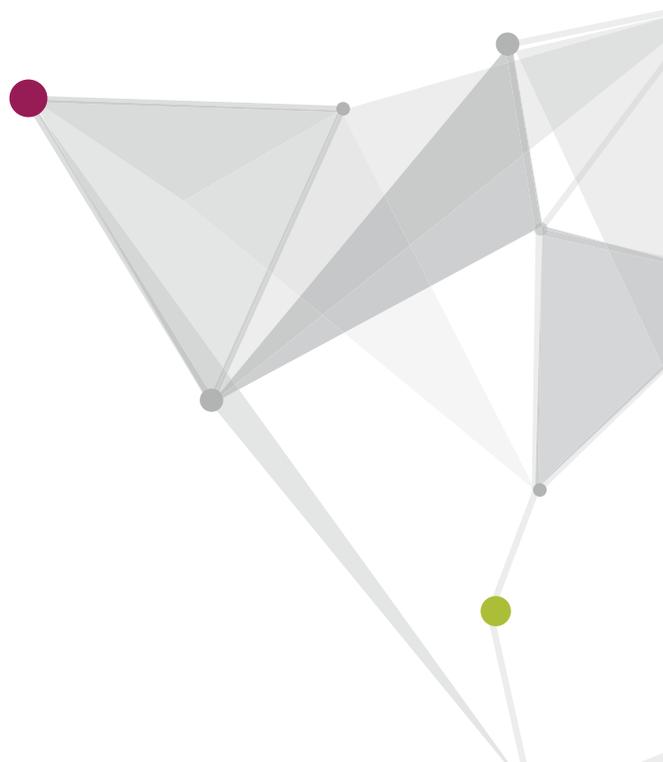
- Maskell, P. (2015). "Accessing Remote Knowledge: The Roles of Trade Fairs, Pipelines, Crowdsourcing and Listening Posts". In: *Temporary Knowledge Ecologies: The Rise of Trade Fairs in the Asia-Pacific Region*. ed. Harald Bathelt; Gang Zeng. Cheltenham: Edward Elgar Publishing, Incorporated, p. 19-41.
- Malmberg, A. and Maskell, P. (2010). "An Evolutionary Approach to Localized Learning and Spatial Clustering". In: *The Handbook of Evolutionary Economic Geography*. ed. Ron Boschma; Ron Martin. Cheltenham, UK: Edward Elgar Publishing, Incorporated, p. 391-405.
- Maskell, P. and Malmberg, A. (2009). "Localised Learning and Industrial Competitiveness". In: *Learning by Populations of Organizations:*

Organizational Learning and Knowledge Management. ed. William H. Starbuck; Suzanne G. Tilleman. Cheltenham: Edward Elgar Publishing, Incorporated, p. 406-424. (The International Library of Critical Writings on Business and Management, No. 9)

- Maskell, P. (2008). "Towards a Knowledge-based Theory of the Geographical Cluster". In: *Economy: Critical Essays in Human Geography*. ed. Ron Martin. Aldershot: Ashgate, p. 377-399. (Contemporary Foundations of Space and Place)

Thomas Rønde (thr.ino@cbs.dk) is Professor in innovation and entrepreneurship. His primary research interests are innovation, organizational economics, and competition policy. Thomas is also Chief Economist at the Danish Competition and Consumer Authority. Cluster-related research themes include: clusters in the context of globalization. Recent publications related to clusters include:

- Kaiser, U., Kongsted, H.C., and Rønde, T. (2015). "Does the mobility of R&D labor increase innovation?" In: *Journal of Economic Behavior and Organization*, February 2015, 110, p. 91-105.
- Gerlach, H., Rønde, T. and Stahl, K. (2009). "Labor



Pooling in R&D Intensive Industries". In: Journal of Urban Economics, Vol. 65, No. 1, p. 99-111.

Finn Valentin (fv.ino@cbs.dk) is Professor and Director of the Research Centre on Biotech Business. His research focuses on interactive learning and innovation (as applied within biotech). Cluster-related research themes include: firm-level cluster effects (science-based firms); clusters and innovation (organization and commercialization of science); sector-specific cluster effects (discovery and innovation in life science). Recent publications include:

- Lauto, G. and Valentin, F. (2016). "The knowledge production model of the New Sciences: The case of Translational Medicine". In: Technological Forecasting and Social Change, forthcoming. Online available at <http://www.sciencedirect.com/science/article/pii/S0040162516300865>
- Gulbrandsen, M., Hopkins, M., Thune, T. and Valentin, F. (2016). "Hospitals and innovation:

Introduction to the special section". In: Research Policy, forthcoming. Online available at <http://www.sciencedirect.com/science/article/pii/S0048733316300841>

- Lauto, G. and Valentin, F. (2016). "How preference markets assist new product idea screening". In: Industrial Management & Data Systems, Vol. 116, No. 3, p. 603-619.
- Lauto, G. and Valentin, F. (2013). "How Large-Scale Research Facilities Connect to Global Research". In: Review of Policy Research, Vol. 30, No. 4, p. 381-408.

Henrik Sornn Friese (hsf.ino@cbs.dk) is Associate Professor and Director of CBS Maritime. His research focuses on: Economic geography of global industries; Configuration of value-creating activities in global industries; Organizational evolution in firms and markets; Networks and inter-firm linkages in the evolution of industries; Developments and dynamics in the international shipping industry and the broader maritime sector. Cluster-related

research themes include: clusters in the context of globalization; and clusters in the context of open innovation and social networking. Recent publications related to clusters include:

- Hansen, C.Ø. and Sornn-Friese, H. (2015). "The Blue Denmark: Is it a Maritime Labour Mobility Cluster?" Paper presented at IAME Conference 2015.
- Sornn-Friese, H., and Iversen, M. J. (2014). "The Establishment of the Danish International Ship Register (DIS) and its Connections to the Maritime Cluster". In: International Journal of Maritime History, Vol. 26, No. 1, p. 82-103.
- Gammelgaard, B., Sornn-Friese, H., Hansen, J., Jessen, M. and Larsen, M. (2013). "Competencies in the Danish Maritime Cluster: A Benchmarking-Analysis". København: Danmarks Maritime Klynge, 124 pages.
- Gammelgaard, B., Sornn-Friese, H. and Kinra, A. (2013). "Identifying Opportunities for Public Private Collaboration in Sustaining Maritime Economies: The Case of the Danish Maritime Cluster". Paper presented at Global Challenges in PPP, Antwerp, Belgium.

Kristina Vaarst Andersen (kva.ino@cbs.dk) is Assistant Professor at INO. Her research focuses on economic sociology, strategic management, network dynamics and economic geography. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of open innovation and social networking; as well as clusters in creative industries. Recent publications related to clusters include:

- Jeppesen, J. and Andersen, K.V. (2015). "Restless Plate Spinners and Rising Stars : How Organizational Foci and Status Dynamics impact Tie Creation and High Impact Science". Paper presented at The DRUID Society Conference 2015.

- Andersen, K.V. and Lorenzen, M. (2014). "Diversity vs Dharma: How Social Capital Increases and Impedes Project Performance in Bollywood". Paper presented at The Academy of Management Annual Meeting 2014, Philadelphia, United States.
- Andersen, K.V., Bugge, M.M., Hansen, H.K., Isaksen, A., and Raunio, M. (2014). "One Size Fits All?: Applying the Creative Class Thesis to a Nordic Context". In: The Creative Class Goes Global. ed. Charlotta Mellander; Richard Florida; Bjørn T. Asheim; Meric Gertler. Abingdon: Routledge, p. 117-137. (Regions and Cities, Vol. 69)
- Andersen, K.V. (2013). "The Problem of Embeddedness Revisited: Collaboration and Market Types". In: Research Policy, Vol. 42, No. 1, p. 139–148.

DEPARTMENT OF STRATEGIC MANAGEMENT AND GLOBALIZATION

The Department of Strategic Management and Globalization (SMG) is one of Europe's leading research departments in strategic management and international business. Researchers at SMG undertake research and teaching on the strategic behavior of companies in an increasingly globalized world in five core areas: governing knowledge; corporate strategy; strategic entrepreneurship; offshoring and outsourcing; and the organization of MNCs.

Peter Ørberg Jensen (poe.smg@cbs.dk) is Associate Professor at the Department of Strategic Management and Globalization. His research interests overall concern economic globalization and firm internationalization. His research specializes on the global sourcing of advanced and high-value services and technical functions, and the managerial, organizational and contractual aspects related to the sourcing arrangements between firms from advanced, high-cost economies, e.g. Denmark, and firms from emerging economies, e.g. India.

Recent publications of relevance to cluster-related research include:

- Hansen, M.W., Jensen, P.D.Ø. and Petersen, B. (2016). "Drivers and Strategies of International Service Firms in Emerging Markets". In: Merchant, Hemant (Ed.) Handbook of Contemporary Research on Emerging Markets. Edgar Elgar Publishing: Cheltenham, UK.
- Haakonsson, S.J., Jensen, P.D.Ø. and Mudambi, S. (2013). "A co-evolutionary perspective on the drivers of the international sourcing of pharmaceutical R&D to India". In: Journal of Economic Geography, Vol. 13, No. 4, p. 677-700.
- Jensen, P.D.Ø. and Pedersen, T. (2011). "The economic geography of offshoring: The fit between activities and local context". In: Journal of Management Studies, Vol. 48, No. 2, p. 352-372.
- Aschhoff, B. and Sofka, W. (2009). "Innovation on Demand – Can Public Procurement Drive Market Success of Innovations?" In: Research Policy, Vol. 38, No. 8, p. 1235-1247.

Wolfgang Sofka (ws.smg@cbs.dk) is Associate Professor at the Department of Strategic Management and Globalization. He received his doctoral degree from the University of Hamburg and previously worked for the Centre for European Economic Research (ZEW) in Germany and Tilburg University in the Netherlands. His research areas include innovation, knowledge search and knowledge protection. Cluster-related research themes include: clusters in the context of globalization; and clusters in the context of open innovation and social networking. Recent publications related to clusters include:

- Sofka, W., de Faria, P. and Preto, M. (2014). "MNC Subsidiary Closure – What is the Value of the Employees' Human Capital in their new Jobs?" In: Journal of International Business Studies, Vol. 45, No. 6, p. 723-750.
- Sofka, W., Shehu, E. and de Faria, P. (2014). "Multinational Subsidiary Knowledge Protection—Do Mandates and Clusters Matter?" In: Research Policy, Vol. 43, No. 8, p. 1320-1333.

ROSKILDE UNIVERSITY



DEPARTMENT OF PEOPLE AND TECHNOLOGY

The **Department of People and Technology** works with the planning of the integrated human, environmental and geographical organization of modern societies. This inter-disciplinary department works across social science, natural science, technical science and humanities. More than 200 researchers at the Department are organized around a variety of thematic areas. Present focus areas include: Working Life and Health Promotion, Mobility and Urban Studies (MOSPUS), Climate Change Adaption and Mitigation (METRIK) and Environmental Risk and Designing Human Technologies. And Educational science and psychology. (Cluster relevant research is especially carried out in the MOSPUS and METRIK research groups.) Each of these areas has their specific interdisciplinary and experimental approaches to focus on vital connections across environmental, social and spatial change. The department is interested in human everyday life, in natural, social and technological systems, and how they work together through sustainability, design and planning. An important priority for the Department is strengthening relationships with public and private stakeholders; and collaborative activities with partners in industry, sector research institutions, regional organizations, NGOs and international bodies are strongly encouraged.

Jørgen Ole Bærenholdt (job@ruc.dk) is Professor within the research group on Space, Place, Mobility and Urban Studies (MOSPUS). His research focuses on the spatial organisation of societies and the geographies of cultural industries. Cluster-related research themes include: clusters in the context of relatedness, related variety (and evolutionary economics); and clusters in the context of open innovation and networking. Recent publications related to clusters include:

- Bærenholdt, J.O. (2016). "Moving to Meet and Make: Rethinking Creativity in Making Things Take Place". In: Richards, G. and Hannigan, J. (eds.), *The Handbook of New Urban Studies*, Sage Publications.
- Bærenholdt, J.O. (2013). "Governmobility: The Powers of Mobility". In: *Mobilities*, Vol. 8, No. 1, p. 20-34.
- Bærenholdt, J.O. (2012). "Enacting destinations: The politics of absence and presence". In: van der Duim, R., Jóhannesson, T. and Ren, C. (eds.), *Actor-Network Theory and Tourism: Ordering, materiality and multiplicity*, Routledge: London, p. 111-127.

Henrik Toft Jensen (htj@ruc.dk) is Associate Professor Emeritus within the research group on Space, Place, Mobility and Urban Studies (MOSPUS). His research focuses on the topics of: Regional Geography; Urban development and mobility; Technological development; Relations between central and local state; and Relations between universities and regions. Cluster-related research themes include: clusters in the context of open innovation and networking; clusters in the context of public policy; and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Jensen, H. T., Frederiksen J. S., and Plum V. (2015). "Tourism – Regional Management and Development". In: ENSPAC, p.27.
- Jensen, H.T., Koch, M. S., Christensen, M. D. and Plum, V. (2013). "Industrien, Job og Krise". In: ENSPAC, p. 120.
- Jensen, H.T., Plum, V., Møller, C.H., Hens, M.F., Vinter Clausen, T., Bagger, C.L. (2011). "Open Door til-vækst : En artikelsamling om øget vækst gennem øget samarbejde". 24 pages.
- Jensen, H.T. and Petersen, L.E. (2010). "Knowledge dynamics in the food and drink

sector in Zealand". In: *Regional trajectories to the knowledge economy: Nordic-European Comparisons*. ed. Margareta Dahlstrøm; Sigrød Hedin. Nordregio. p. 71-77.

DEPARTMENT OF SOCIAL SCIENCES AND BUSINESS – INNOVATION IN SERVICE AND EXPERIENCE

The **Department of Social Sciences and Business** (DSSB) is one of the largest departments, if not the largest of its kind. With more than 90 permanent staff members and some 60 PhD students, it offers an attractive international environment for teaching and research. A significant percentage of DSSB students and permanent staff is non-Danish which contributes to strengthening the international ambitions of the Department. The research at the Department of Social Sciences and Business is organized into seven research groups and focuses on societal changes, business economics and the impact of such developments and changes on the modes of function of different societies around the world.

Innovation in Service and Experience (ISE)

is a research group within the Department of Social Sciences and Business. The research area is how the innovation approach, including entrepreneurship, can be used to understand development problems in enterprises, the society and the economy. The group has a particular focus on service industries and the experience economy (including tourism, creative industries, food industries) and public-private collaboration, as well as service innovation related to public services.

Jon Sundbo (sundbo@ruc.dk) is Professor within the Innovation in Service and Experience research group. His research areas include performance management; management and organization of industry, trade, and communication; and physical planning. Cluster-related research themes include:

clusters in the context of relatedness, related variety (and evolutionary economics); cluster life cycles in the context of path dependency/extension/transformation; and clusters in the context of open innovation and social networking. Recent publications related to these themes include:

- Fuglsang, L. and Sundbo, J. (2016). "Innovation in public service systems". In: Toivonen, M. (ed.), *Service Innovation. Novel Ways of Creating Value in Actor Systems*, Springer, 2016.
- Sundbo, J. (2015). "Service and experience". In: Bryson, J. and Daniels, P. (eds.), *Handbook of service business: Management, Marketing, Innovation and Internationalisation*, Edward Elgar Publishing, Incorporated: Cheltenham.
- Eriksen, S.N. and Sundbo, J. (2015). "Drivers

and barriers to the development of local food networks in rural Denmark". In: *European Urban and Regional Studies*, 2015, p. 1-15.

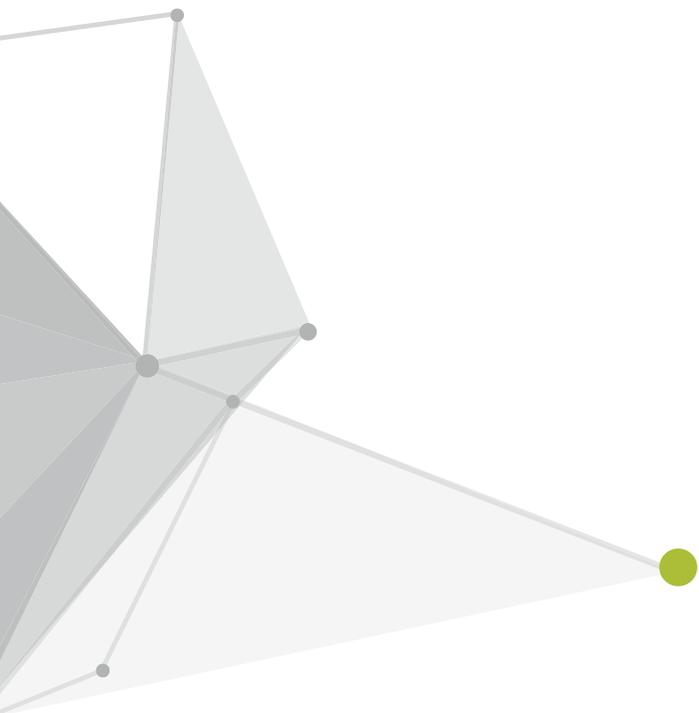
- Sundbo, J. (2015). "Service improvement and innovation". In: Dahlgard-Park, S-M. (ed.), *The SAGE Encyclopedia of Quality and the Service Economy*, Sage Publications, Incorporated: London, p. 692-696.

Ada Scupola (ada@ruc.dk) is a Senior Associate Professor (Lector MSK) within the Innovation in services and experiences (ISO) research group. Her research interests include innovation theory with a focus on user-driven innovation and ICT-based innovation in service companies. Cluster-related research themes include: cluster facilitation/governance/management and ICT in cluster formation/facilitation. Publications related to clusters include:



- Steinfield, C., Scupola, A. and Lopez, C. (2010). "Social Capital, ICTs Use and Company Performance: Findings from the Medicon Valley Biotech Cluster". In: Technological Forecasting and Social Change, Vol. 77, No. 7, p. 1156-1166.
- Steinfield, C., Scupola A. (2008). "Understanding the Role of ICT Networks in a Biotechnology Cluster: An Exploratory Study of Medicon Valley". In: The Information Society, Vol. 24, No. 5, p. 319-333.
- Scupola, A. and Steinfield, C. (2008). "The role of a network organization and Internet-based technologies in clusters – the Case of Medicon Valley". In: Innovation and the Creative Process, Fuglsang, L. (ed.), pp. 193-211. Edward Elgar.
- Sørensen, F. and Mattsson, J. (2016). "Speeding Up Innovation: Building Network Structures for Parallel Innovation". In: International Journal of Innovation Management, Vol. 20, No. 2.
- Møller, J.K. and Sørensen F. (2016). "Interpretivist analyses of social networks of Service innovation". In: Sørensen, F. and Lapenta, F. (eds.), Research Methods in Service Innovation, Edward Elgar Publishing, Incorporated.
- Mattsson and Sørensen F. (2015). "City Renewal as Open Innovation". In: Journal of Innovation Economics & Management, Vol. 16, No. 1, p. 195-215.
- Sørensen, F. and Jensen, J.F. (2015). "Value creation and knowledge development in tourism experience encounters". In: Tourism Management, Vol. 46, 2015, p. 336-346.

Flemming Sørensen (flemmiso@ruc.dk) is Associate Professor within the Innovation in Service and Experience research group. His research areas include organization of industry, trade, and communication; entrepreneurs service management; experience economy, experience management, innovation. Cluster-related research themes include: clusters in the context of open innovation and social networking, as well as clusters in service industries and the experience economy. Recent publications related to these themes include:



UNIVERSITY OF COPENHAGEN



DEPARTMENT OF GEOSCIENCES AND NATURAL RESOURCE MANAGEMENT; SECTION FOR GEOGRAPHY

The **Department of Geosciences and Natural Resource Management** (IGN) is a broadly based department at the Faculty of Science at the University of Copenhagen. IGN's activities include research and development, BSc and MSc courses and adult education/continuity training, servicing the public sector, innovation, monitoring, consultancy and outreach as well as international development and environmental assistance. The Department has about 450 employees and

conducts research and research based teaching within the fields of geology, geography and geoinformatics, forest, nature and biomass and landscape architecture and planning.

The **Section for Geography** has a broad focus: From urban and regional planning, labour market and employment, poverty and migration in developing countries – to coastal protection and climate analyses. The section consists of the four research groups: Transformation of Cities and Landscapes - Geoinformatics (led by Lars Winther); Environment and Society in Developing Countries (led by Ole Mertz); Dynamic Geomorphology and Quaternary Geology (led by Aart Kroon); and Terrestrial Ecosystem Analysis. Processes and interplay between climate, soil and water (led by Henrik Breuning-Madsen).

Christian Wichmann Matthiessen (cwm@ign.ku.dk) is Professor emeritus within the Section for Geography. His research has covered a range of fields such as Urban System Structure and Function, Urban Growth, Large City (re)-vitalization, Urban Structure, Implications of Infrastructural Investments, Metropolitan Competition, Regional Development, Triple Helix (cooperation: universities, corporate world, regional government) and Multivariate Statistical Methods. Cluster-related research themes include: clusters in the context of public policy. Recent publications related to regional development and clusters include:

- Matthiessen, C.W. (2015). "The Femarnbelt link will be a growth dynamo for the Baltic Sea Region". København : Femern A/S , 13 pages.
- Matthiessen, C.W. and Herrmann, H. (2011). "Clusters in the Economy: Potential New Interaction". In: The Fehmarnbelt Fixed Link: Regional Development Perspectives. ed. Christian Wichmann Matthiessen; Marianne Worm. Copenhagen: Syddansk Universitetsforlag, p. 238-277.

- Matthiessen, C.W., Schwarz, A.W., and Find, S. (2011). "Research nodes and networks". In: Handbook of creative cities. ed. David Emanuel Andersson; Åke E. Andersson; Charlotta Mellander. Cheltenham: Edward Elgar Publishing, Incorporated, p. 211-228.
- Matthiessen, C.W., Find, S., and Schwarz, A.W. (2011). "The World of Science: Centres, Networks, Development Opportunities". In: The Fehmarnbelt Fixed Link: Regional Development perspectives. ed. Christian Wichmann Matthiessen; Marianne Worm. Syddansk Universitetsforlag, p. 280-327.

Lars Winther (lw@ign.ku.dk) is Professor and Head of the research group on Transformation of Cities and Landscapes (within the Section for Geography). His research is on the key aspects of urban and regional development and industrial change and location with a focus on the importance of employment, human capital, competitiveness and innovation and the geography of the knowledge economy. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of public policy; as well as clusters in the context of human capital and economic dynamism. Recent publications related to these themes include:

- Hansen, H.K. and Winther, L. (2015). "Employment growth, human capital and educational levels: uneven urban and regional development in Denmark 2002–2012". In: Danish Journal of Geography, Vol. 115, No. 2, 2015, p. 105-118.
- Skytt-Larsen, C.B. and Winther, L. (2015). "Knowledge Production, Urban Locations and the Importance of Local Networks". In: European Planning Studies, p. 1-23.
- Hansen, T., Winther, L., and Hansen, R.F. (2014). "Human capital in low-tech manufacturing: The geography of the knowledge economy in Denmark". In: European Planning Studies, Vol. 22,

No. 8, p. 1693-1710.

- Hansen, H.K. and Winther, L. (2014). "Regional development and the impact of the public sector in Denmark: employment growth and human capital". In: Geografisk Tidsskrift/Danish Journal of Geography, Vol. 114, No. 2, p. 156-168.

Høgni Kalsø Hansen (hh@ign.ku.dk) is Associate Professor within the Transformation of Cities and Landscapes research group. He is conducting research within the area of urban economic dynamics focusing on the match/mismatch between industrial structures and skills, along with human capital, innovation and labor mobility. Cluster-related research themes include: clusters in the context of human capital and economic dynamism. Recent publications related to these themes include:

- Hansen, H.K. and Winther, L. (2015). "Employment growth, human capital and educational levels: uneven urban and regional development in Denmark 2002–2012". In: Danish Journal of Geography, Vol. 115, No. 2, 2015, p. 105-118.
- Ejermo, O. and Hansen, H.K. (2015). "How important are local inventive milieus: The role of birthplace, high school and university education". In: Geoforum, Vol. 65, 2015, p. 387–397.
- Andersen, K.V., Bugge, M.M., Hansen, H.K., Isaksen, A., and Raunio, M. (2014). "One Size Fits All?: Applying the Creative Class Thesis to a Nordic Context". In: The Creative Class Goes Global. ed. Charlotta Mellander; Richard Florida; Bjørn T. Asheim; Meric Gertler. Abingdon: Routledge, p. 117-137. (Regions and Cities, Vol. 69)
- Hansen, H.K. and Winther, L. (2014). "Regional development and the impact of the public sector in Denmark: employment growth and human capital". In: Geografisk Tidsskrift/Danish Journal of Geography, Vol. 114, No. 2, p. 156-168.

UNIVERSITY OF SOUTHERN DENMARK



UNIVERSITY OF SOUTHERN DENMARK

DEPARTMENT OF BUSINESS AND ECONOMICS

The **Department of Business and Economics** is part of the Faculty of Business and Social Sciences – with locations in Odense, Slagelse and Sønderborg. The research and teaching fields at the Department are organized in four groups: accounting and finance; econometrics and management science; macroeconomics, trade and economic history; and microeconomics.

Andreas Cornett (cornett@sam.sdu.dk) is Professor within the Department of Business and Economics. His research focuses on the topics of: Processes of clustering and regional innovation systems; Regional convergence and disparities; Comparative regional policy (EU and national); The process of integration and the implications for peripheral regions; Economic transition and the development of the international economic system; and National and regional adaptation to economic and political integration. Cluster-related research themes include: clusters in the context of globalization and clusters in the context of public policy. Recent publications related to clusters include:

- Cornett, A.P. and Sørensen, N.K. (2015). “Determinants of Convergence and Disparities in Europe: Innovation, Entrepreneurship, and the Processes of Clustering”. In: Farinha, L.M.C., Ferreira, J.J.M., Smith, H.L. & Bagchi-Sen, S. (eds.), *Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship*, Ch. 3, p. 28-35.
- Cornett, A.P. (2014). “Cluster development policy as a tool in regional development and competitiveness policy - theoretical concepts and empirical evidence”. In: *Knowledge, Innovation and Space: New Horizons in Regional Science*. eds. Karlsson, C., Johansson, B., Kobayashi, K. & R. Stough, R. Edward Elgar Publishing, Incorporated, p. 213-233.

- Cornett, A.P. and Othengrafen, F. (2013). "A Critical Assessment of the Added Value of Territorial Cohesion". In: *European Journal of Spatial Development*. October, 30 pages.
- Cornett, A.P. (2013). "Conceptualisation of Clusters as a Tool in Local and Regional Business Development". In: *Resources and Competitive Advantage in Clusters*. eds. Brown, K., Burgess, J., Festing, M. & Royer, S. Rainer Hampp Verlag, Chpt. 3, p. 30-45.
- Bager, T., Klyver, K. and Schou Nielsen, P. (2015). "Special interest in decision making in entrepreneurship policy". In: *Journal of Small Business and Enterprise Development*, Vol. 22, No. 4, p. 680-697.
- Bager, T., Ottósson, H. and Schøtt, T. (2010). "Intrapreneurs, entrepreneurs and spin off entrepreneurs: Similarities and differences". In: *International Journal of Entrepreneurship and Small Business*. Vol. 10, No. 3, p. 339-358.
- Ottósson, H. and Bager, T. E. (2009). "Abandoned intentions - The influence of social capital, human capital and entrepreneurial attitude on advancement of entrepreneur intentions".
- Bager, T. E. and Klyver, K. eds. (2007). *Iværksætterne og deres netværk*. København: Børsen.

DEPARTMENT OF ENTREPRENEURSHIP AND RELATIONSHIP MANAGEMENT

The **Department of Entrepreneurship and Relationship Management** (IER) is part of the Faculty of Business and Social Sciences. The Department is rooted in a business economic tradition and conducts research in collaboration with businesses and industry-promoting institutions. The Department is based at the Kolding, Sønderborg and Slagelse campuses and has about 75 employees. The activities of the department are organized in three research groups: accounting and economic, entrepreneurship and organization (including network organization and relationship management), and marketing and supply chain (including innovation and business development, network and value chains).

Torben Bager (tob@idea.sdu.dk) is Professor at the Department of Entrepreneurship and Relationship Management and Director of the IDEA Entrepreneurship Centre. His research focuses on the areas of: organization theory and management; economic sociology, immigrant business and globalization; entrepreneurship and firm growth; and entrepreneurship teaching and training. Cluster-related research themes include: clusters in the context of globalization and clusters in the context of public (entrepreneurship) policy. Recent publications related to these themes include:

- Poul Rind Christensen** (rind@sam.sdu.dk) is Professor and Head of Centre for Design, Culture and Management at the Department. His current research areas focus on the nexus of design and innovation management; small business management and entrepreneurship; and organizational change and inertia in the context of business networks. Past research areas include theories and models on small firms' internationalization; and studies on the dynamics of industrial cluster formation. Cluster-related research themes include: clusters in the context of globalization; cluster life cycles in the context of path dependency; and clusters in the context of open innovation and social networking. Recent publications related to clusters include:
- Christensen, P. R., Munksgaard, K. M., Bang, A. L. (forthcoming). "The wicked problem of supplier-driven innovation. Expected to forthcome in: *Journal of Business and Industrial Marketing* – special issue in 2016.
 - Jensen, S., Ingstrup, M.B., Christensen, P.R. and Langkilde, L. (2015). "Cluster emergence: The

development of a design cluster in Southern Denmark". Proceedings of the 18th Uddevalla Symposium 2015, 11-13 June, Sønderborg, Denmark. University West, 15 pages.

- Ingstrup, M. B. and Christensen, P. R. (2014). "Change of Cluster Specialization through the Process of Globalization". Proceedings of the 17th Uddevalla Symposium 2014, 12-14 June, Uddevalla Sweden. University West, 19 pages.
- Storvang, P., Jensen, S. and Christensen, P. R. (2014). "Innovation through Design: A Framework for Design Capacity in a Danish Context". In: Design Management Journal, Vol. 9, No. 1, p. 9-22.

Torben Munk Damgaard (torben@sam.sdu.dk) is Head of Professional Development and Executive Education at the Faculty of Business and Social Sciences and Associate Professor at the Department of Entrepreneurship and Relationship Management. His research focuses on the topics of: Clusters and clustering – development and facilitation; Business marketing emphasizing leadership across companies; Relationship Management and Managing in Networks; and Managing and competence development in SMEs. Cluster-related research themes include: clusters in the context of globalization; cluster life cycles in the context of path dependency/extension/transformation; clusters in the context of open innovation and social networking; clusters in the context of public policy; and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Ingstrup, M. B., Steinþórsson, R. S. and Damgaard, T. M. (2014). "Cluster Governance: In Between Top-down and Bottom-up Clusters". 2014 Proceedings of the 17th Uddevalla Symposium 2014, 12-14 June, Uddevalla Sweden. University West, 22 pages.
- Ingstrup, M. B. and Damgaard, T. (2013). "Cluster

Development through Public Sector Facilitation". In: Resources and Competitive Advantage in Clusters. Brown, K., Burgess, J., Festing, M. and Royer, S. (eds.). Rainer Hampp Verlag, p. 46-65.

- Damgaard, T., Ingstrup, M. B. and Mikkelsen, M.D. (2012). "A literature review on resource transfer between clusters". Syddansk Universitet. Institut for Entreprenørskab og Relationsledelse. 79 pages.
- Andersen, P., Christensen, P.R., and Damgaard, T. (2009). "SMEs global sourcing and relationship norms". In: Industrial Marketing Management, Vol. 38, No. 7, p. 814-824.

Majbritt Rostgaard Evald (mre@sam.sdu.dk) is Associate Professor within IER. Her research focuses on intrapreneurship, (open) innovation and (collaborative) entrepreneurship - organized within and between private and public organizations. Cluster-related research themes include: clusters in the context of open innovation and social networking; and clusters in the context of public policy. Recent publications related to clusters include:

- Nissen, H.A., Evald, M.R. and Clarke, A.H. (2015). "Firms' reshaping of commercialization practices to overcome the 'not invented here' phenomenon in public healthcare organizations". In: The Innovation Journal, Vol. 20, No. 3, p. 1-27.
- Evald, M.R., Nissen, H.A., Clarke, A.H. and Munksgaard, K.B. (2014). "Reviewing cross-field Public Private Innovation literature: Current research themes and future research themes yet to be explored". In: International Public Management Review, Vol. 15, No. 2, p. 32-57.
- Nissen, H.A., Evald, M.R., and Clarke, A.H. (2014). "Knowledge sharing in heterogeneous teams through collaboration and cooperation: Exemplified through Public-Private-Innovation partnerships". In: Industrial Marketing Management, Vol. 43, No. 3, p. 473-482.

Susanne Gretzinger (sug@sam.sdu.dk) is Associate Professor within IER. Her research focuses on the topics of: Social Network Analysis (SNA perspective); Social Capital, Intellectual Capital (Absorptive Capacity); Value and Rent (Co-) Creation in Networks, Clusters (Value Adding Webs); Knowledge-Management in Networks; Innovation-Management; and Market-oriented Management of Networks. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of open innovation and social networking; and clusters in the context of public policy. Recent publications related to clusters include:

- Gretzinger, S. and Leick, B. (2016). "Brokerage-based value co-creation in co-optating business networks". Presented at the International Conference on Economics and Management of Networks – EMNet 2015, December 3 - 5, 2015, in Cape Town, South Africa. Submitted and under review as journal article.
- Gretzinger, S., Fietze, S. and Matiaske, W. (2015). "Innovation Networks". In: Management Revue, Vol. 26, No. 2, p. 81-82.
- Gretzinger, S. and Royer, S. (2014). "Relational Resources in Value Adding Webs: The case of a Southern Danish Firm Cluster". In: European Management Journal. Vol. 32, No. 1, p. 117-131.
- Gretzinger, S., Hinz, H., and Matiaske, W. (2010). "Cooperation in Innovation Networks: The Case of Danish and German SMEs". In: Management Revue, Vol. 21, No. 2, p. 193-216.

Kristin Balslev Munksgaard (kbm@sam.sdu.dk) is Associate Professor within IER. Her research focuses on the topics of: Network and Relationship Marketing and Strategy; Innovation Management; B2B Marketing; Public-Private Innovation; and Supplier Driven Innovation. Cluster-related research themes include: clusters in the context of innovation and business networking; cluster

in the context of public policy; and collaboration in clusters. Recent publications related to these themes include:

- Munksgaard, K.B. (2015). "Is this network for you or for me?: The pursuit of self and collective interests in a strategic network". In: Journal of Business and Industrial Marketing, Vol. 30, No. 3/4, p. 279-289.
- Munksgaard, K.B., Johnsen, R.E., and Patterson, C.M. (2015). "Knowing me, knowing you: Self- and collective interests in goal development in asymmetric relationships". In: Industrial Marketing Management, Vol. 48, p. 160–173.
- Frandsen, K., Munksgaard, K.B., and Damgaard, T.M. (2014). "Business Model Development – it's all about perceived value".
- Munksgaard, K.B., Johnsen, R.E. and Bastholm, S.M. (2014). "Individual and collective interest development in asymmetric customer-supplier relationships: Evidence from the Danish food sector".

Mads Bruun Ingstrup (mbi@sam.sdu.dk) is Assistant Professor within the Department of Entrepreneurship and Relationship Management, and member of the Centre for Entrepreneurship and Small Business Studies. His research focuses on the topics of cluster governance, cluster development, entrepreneurial ecosystems, smart specialization, and regional development. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of relatedness and related variety; cluster life cycles in the context of path dependency/extension/transformation; clusters in the context of public policy; and cluster facilitation/governance/management and varieties of capitalism. Recent publications related to clusters include:

- Ingstrup, M. B. and Menzel, M.-P. (2015). "Relatedness and institutions during cluster

evolution: The case of offshore oil and gas and offshore wind energy in Esbjerg, Denmark”.

- Ingstrup, M. B. and Christensen, P. R. (2015). “Cluster Specialization as a Result of Globalization”.
- Ingstrup, M. B. (2014). “When Firms Take the Lead in Facilitating Clusters”. In: European Planning Studies. Vol. 22, No. 9, p. 1902-1918.
- Ingstrup, M.B. and Damgaard, T. (2013). “Cluster Facilitation from a Cluster Life Cycle Perspective”. In: European Planning Studies. Vol. 21, No. 4, p. 556-574.

Pia Schou Nielsen (pnx@sam.sdu.dk) is Assistant Professor within the Department of Entrepreneurship and Relationship Management. Her research interests include: entrepreneurship and entrepreneurship policy, and public-private innovation. Cluster-related research themes include: clusters in the context of public policy. Recent publications related to clusters include:

- Nielsen, P.S. (2016). “Entrepreneurship orientation in policy making: A determinant of collaboration and organizational adaptability in entrepreneurship policy delivery”. In: International Journal of Entrepreneurship and Innovation, Vol. 17, No. 1, p. 43-54.
- Bager, T., Klyver, K. and Nielsen, P.S. (2015). “Special interest in decision making in entrepreneurship policy”. In: Journal of Small Business and Enterprise Development, Vol. 22, No. 4, p. 680-697.
- Nielsen, P.S. (2013). “Organizing Entrepreneurship Policy: A Study across the Danish Municipalities”. Syddansk Universitet. Det Samfundsvidenskabelige Fakultet. 256 p.

DEPARTMENT OF MARKETING AND MANAGEMENT

The **Department of Marketing and Management** is part of the Faculty of Business and Social Sciences.

Research within the department is anchored in an understanding of the cooperation between markets, organizations and individuals. It encompasses a variety of areas from evolutionary models of organization to the culture of ‘hot dog stands’. The research of approximately 80 employees at the department is organized into five research units: Consumption, Culture and Commerce; International Business & Entrepreneurship; CENTRE for Integrative Innovation Management; Strategic Communication & Management; and Strategic Organizational Design.

Uwe Cantner (uwca@sam.sdu.dk or uwe.cantner@uni-jena.de) is Part-time Professor within the Centre for Integrative Innovation Management at the Department of Marketing and Management. He is also Professor of Economics, Chair for Microeconomics at Friedrich-Schiller-University in Jena, Germany. His research focuses on economics of innovation; evolutionary economics; industrial economics. Cluster-related research themes include: clusters in the context of globalization; clusters in the context of open innovation; clusters in the context of relatedness and related variety (and evolutionary economics); clusters in the context of public policy; and cluster facilitation/ governance/ management. Recent publications related to these themes include:

- Cantner, U., Graf, H., Herrmann, J. and Kalthaus, M. (2016). “Inventor Networks in Renewable Energies: The Influence of the Policy Mix in Germany”. In: Research Policy, Vol. 45, No. 6, p. 1165–1184.
- Knudsen, M., Tranekjer, T., Cantner, U. (2016). “Open Innovation in an International Perspective: How to Organise for (Radical) Product Innovation”. In: A. Brem, E. Viardot (eds), Revolution of Innovation Management - International Trends in Research and Practice, Palgrave & McMillan
- Cantner, U., Hinzmann, S., and Wolf, T. (2016).

- "The Coevolution of Innovative Ties, Proximity and Competences - Towards a Dynamic Approach of Innovation Cooperation". In: J. Glückler, E. Lazega, I. Hammer (eds), Knowledge and Networks, Springer Series "Knowledge and Space".
- Cantner, U., Graf, H. and Toepfer, S. (2015). "Structural dynamics of innovation networks in German Leading-Edge Clusters". Jena Economic Research Papers, # 2015 – 026, 2015.

René Chester Goduscheit (rene@sam.sdu.dk) is Associate Professor within the Centre for Integrative Innovation Management at the Department of Marketing and Management. His research focuses on topics of: Open Innovation (user innovation, inter-organizational innovation); New business models and business development; University-company knowledge and technology sharing; and Service Innovation. Parallel to his university research, he collaborates with LB Analyse – providing expert input on innovation management and network analysis. Cluster-related research themes include: clusters in the context of open innovation and social networking; clusters in the context of public policy; and cluster facilitation/ governance/ management and varieties of capitalism. Recent publications related to inter-firm collaboration and innovation include:

- Goduscheit, R. C. (2014). "Innovation promoters – A multiple case study". In: Industrial Marketing Management, Vol. 43, p. 525-534.
- Goduscheit, R. C. and Jørgensen, J. H. (2013). "User toolkits for innovation – a literature review". In: International Journal of Technology Management. Vol. 61, No. 3/4, p. 274-292.
- Jørgensen, J. H., Rasmussen, E. S., Goduscheit, R. C. and Bergenholtz, C. (2012). "Managing the Fuzzy Front End: Intra-Firm Versus Inter-Firm Networks". In: Perspectives on Supplier Innovation: Theories, Concepts and Empirical Insights on Open Innovation and the Integration of Suppliers. Brem, A. and Tidd, J. (eds.). Imperial College Press, Ch. 14, p. 473-498. (Series on Technology Management, Vol. 18).

OTHER INDIVIDUALS WITH A RESEARCH DEGREE

Stefan Brendstrup (sb@pluss.dk) is senior consultant in Pluss. Pluss is a consulting company focusing on business development and regional development amongst other business areas. Stefan received his PhD in Political Science from Aarhus University in 2005, addressing the topic of restructuring and liberalization of public service sectors. Stefan's research interests focus on evaluation, analysis and learning and in particular on developing meaningful measures of public initiatives. Cluster-related research themes include: clusters in the context of public policy. Stefan was responsible for the cluster programme in Region of Southern Denmark 2005-2008, has evaluated a number of cluster initiatives including the use of network analysis as a way to measure the progress of the cluster development, and given advice on the formation of new cluster initiatives.

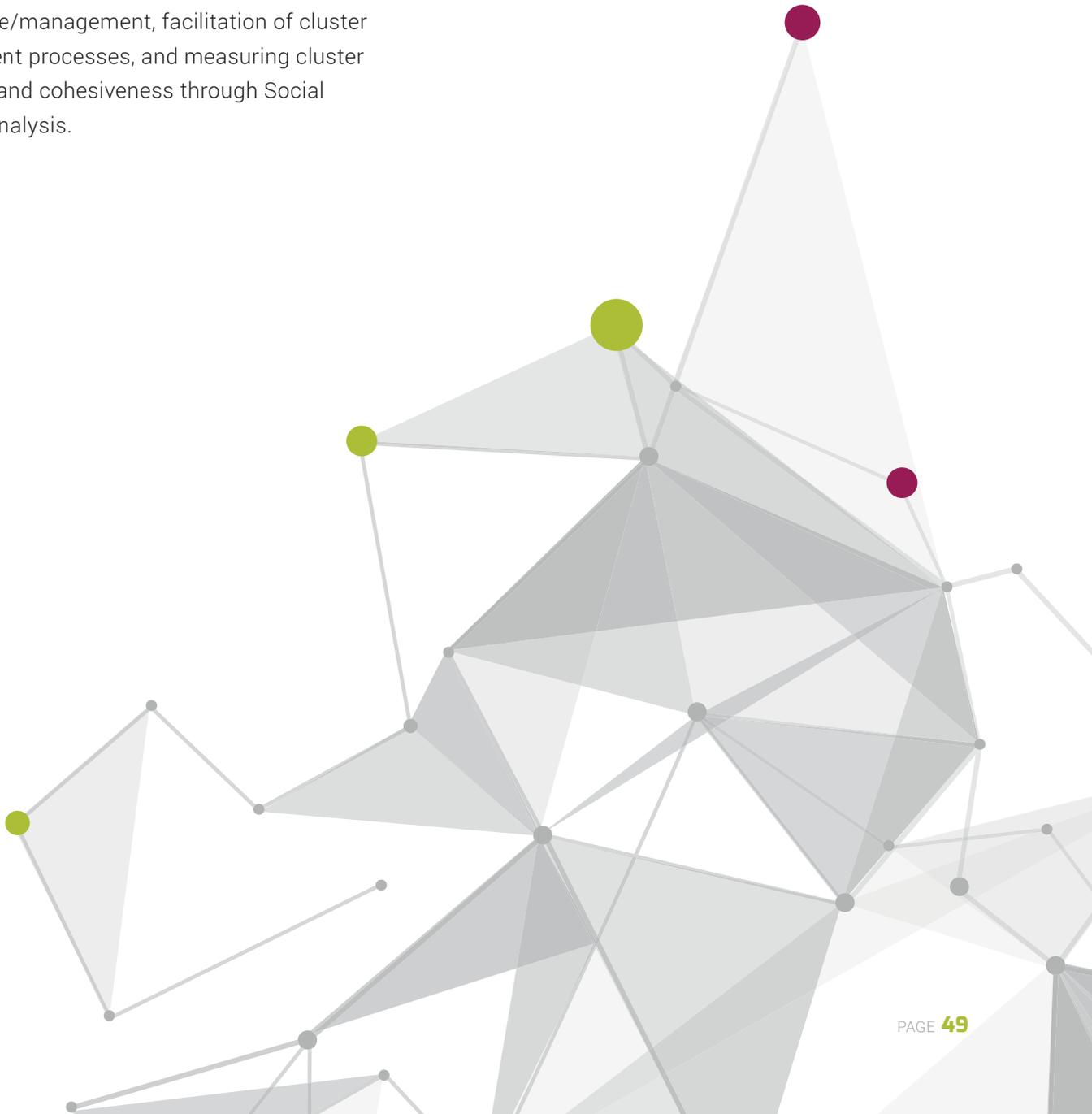
Anders Bille Jensen (abj@bd-partners.dk and abj@sdu.dk) is the owner of Business Development Partners ApS – a consultancy focused on management consultancy, business development, and training. Anders was previously a researcher (and defended his PhD) at the Institute of Corporate Strategy and Leadership at the University of Southern Denmark (2005-2015). His research interests focus on the areas of strategic management and business model development. Cluster-related research themes include: clusters in the context of open innovation and social networking; and cluster governance/ management. Relevant academic publications include: Jensen, A.B. (2012). "An explorative study of the potential application of the business model approach in cluster collaboration".

Susanne Jensen (sus@idea2action.dk) is a consultant at idea2action. Her research interests include innovation management, innovation processes, design-oriented transformations, networks and tourism/ experience economy. Cluster-related research themes include: cluster life cycles in the context of path dependency/ extension/ transformation; clusters in the context of open innovation and social networking; and cluster in the context of public policy. Recent publications related to clusters include:

- Jensen, S., Ingstrup, M.B., Christensen, P.R. and Langkilde, L. (2015). "Cluster emergence: The development of a design cluster in Southern Denmark". Proceedings of the 18th Uddevalla Symposium 2015, 11-13 June, Sønderborg, Denmark. University West, 15 pages.
- Christensen, P.R. and Jensen, S. (2014). "Design i et regional perspektiv". Design to Innovate (D2i) Working Paper, Vol. 3.
- Storvang, P., Jensen, S. and Christensen, P.R. (2014). "Innovation through Design: A Framework for Design Capacity in a Danish Context". In: Design Management Journal, Vol. 9, No. 1, p. 9-22.

Jacob Høj Jørgensen (jhj@delendorff.com) is Owner and CEO at Delendorff Advisory. Delendorff Advisory uses research-based methods as an integrated part of their consulting services and specializes within the areas of inter-organizational development processes, network analysis, user-centric innovation and business development. Jacob received his PhD from Aalborg University (Center for Industrial Production) in 2010 on employing the lead-user method in an inter-organizational network. He applies this knowledge

in consultancy engagements – working, for example, with the implementation of network-based development processes and user-centric innovation. Parallel to his consultancy, Jacob publishes his work in international scientific journals and is external lecturer at Aarhus University on open innovation in the MBA programme and in the masters programme on innovation management. Cluster-related research themes include: cluster governance/management, facilitation of cluster development processes, and measuring cluster efficiency and cohesiveness through Social Network Analysis.



RESEARCH NETWORKS

In addition to the research departments/institutions described above, there are several Danish-led research networks which have relevance to clusters.

DRUID (Danish Research Unit for Industrial Dynamics) has existed since 1995 and has the mission of facilitating and disseminating research on innovation and structural, institutional and geographic change. DRUID research is cross-disciplinary, incorporating insights from, for example, economics, sociology, management, and economic geography. On the applied level, DRUID supports the development of policy implications and organizational or strategic recommendations while interacting with policy makers in government and managers in the business community.

During the last decades, DRUID has been associated with a range of research themes that have become widely influential, such as innovation systems, open innovation, organizational learning, firm capabilities, markets for technology, clusters, and social networks. Currently, examples of themes that are attracting increasing attention in the DRUID community encompass creativity, entrepreneurship, knowledge search, local and global connectedness, eco-innovation, social innovation and institutional innovation.

The DRUID faculty integrates researchers from three Danish Universities: Aalborg University (AAU), Copenhagen Business School (CBS), and University of Southern Denmark (SDU). Currently, 70+ scholars at AAU, CBS and SDU are affiliated to DRUID. Over the last 20 years, DRUID has evolved into a “hub” of a large international network in industrial dynamics supported by two annual conferences (see below) and an internationally well-recognized electronic working paper series. DRUID is associated with

the journal *Industry and Innovation*, published by Routledge.

The DRUID network organizes two major events each year:

- the DRUID conference – a leading academic conference on innovation and the dynamics of structural, institutional and geographic change
- the DRUID academy conference – a specialized course program and unique annual PhD training conference in management and innovation that attracts students from Europe and beyond

And in 2016, the DRUID-Asia conference was initiated.

The current Director is Mark Lorenzen, Copenhagen Business School and the Administrative Officer is Jeanette Hvarregaard, Aalborg University. In addition to the Director and the Administrative Officer, the Executive Committee consists of Jesper Lindgaard Christensen and Christian R. Østergaard (both Aalborg University), Keld Laursen and Peter Maskell (both Copenhagen Business School) and Thorbjørn Knudsen and Mette Præst Knudsen (both University of Southern Denmark). The DRUID International Scientific Advisory Committee is chaired by Olav Sorenson, Yale School of Management, and it has as members 15 international scholars in the field of industrial dynamics.

GLOBELICS (The Global Network for the Economics of Learning, Innovation and Competence Building Systems) is a worldwide, open and diverse community of scholars working on innovation and competence building in the context of economic development. The network

was started in 2002 by economists and experts on innovation systems (including Bengt-Åke Lundvall from Aalborg University). The IKE Group at Aalborg University has been a key architect behind Globelics. Over time the network has integrated expertise with a wider social science background and experts on broader aspects of development. But the network's core field of study remains the role of innovation, and of innovation systems as complexes of institutions that mold and support innovation in countries at different levels of industrialization.

Globelics is an informal network and most activities are initiated and organized at the local level. Globelics' main activities include annual conferences (attended by more than 2000 scholars) and Globelics Academy (attended by more than 300 PhD students), as well as hosting research projects and maintaining a strong global network (facilitated through its website and various regional chapters).

The formation of the Globelics Secretariat was based on grants from Sida, Sweden and from Aalborg University. The Globelics Scientific Board gives advice on local activities and initiates new activities. The Globelics Secretariat serves as secretariat for the Scientific Board, gives advice on local activities and is responsible for activities supported by Sida, Sweden. Regional chapters of Globelics have been developed in Africa, Asia, Europe, Latin America, and the Mediterranean Area (AfricaLics, AsiaLics, EuroLics, LaLics and MEDALics).

