

The value of Centres of Excellence in Risk

Tuesday 14-15

Joint activity the Nordic Chapter of SRA and the Swedish
Society for Risk Science

Symposium overview

- Introduction
- The Nordic Chapter of the Society for Risk Analysis
- The Swedish Society for Risk Science/Risikkollegiet
- What is a CoE?
- Mark Burgman Past director of the Australian CoE in Risk
- Panel discussion
- General discussion

Centre of Excellence

- A Center of Excellence (CoE) is a team, a shared facility or an entity that provides leadership, best practices, research, support and/or training for a focus area.
- A CoE is created to stimulate the development of a certain discipline or skills
- A CoE is an area of expertise for which the subsidiary is recognized by the corporation, and which other parts of the corporation draw on
- A CoE provides functional leadership, including advice and guidance in the conduct, use and advancement of practices.



Research centre initiatives

- Classical CoE – mainly academic aims
- Strategic research areas
 - research that, in the long term, has the prerequisites to be of the highest international quality
 - research that can contribute towards fulfilling major needs and solving important problems in society
 - research in areas that have a connection with the Swedish business sector
- Research-based innovation
- Strategic innovation programmes are funding initiatives where leading actors from commerce, academia and the public sector identify and define areas where they see a need to focus Swedish competence and joint efforts.

Nordic version of CoE

- Both institutional core funding and project funding with the objectives to:
 - Promote high scientific quality
 - Groundbreaking research and international competitiveness
 - Concentration of resources and long-term funding to the best research environments
- Funding is time-limited and selection is based on application and open competition with international peer review

Table 1. Overview of cases (see Appendix for an overview of aims, terms and funding level of schemes)

Case	Name of centre	Scheme*	Period for centre	Field	Host/location
D1	Centre for Epigenetics	DG CoE	2007–17	Biotechnology	University of Copenhagen
D2	Center for Quantum Optics	DG CoE	2001–12	Quantum optics, physics, ICT	University of Copenhagen
D3	Strategic Electrochemistry Research Center	DSF Centres	2007–12	Energy	Technical University of Denmark
F1	CoE in Molecular and Integrative Neuroscience Research	AKA5, AKA2	2008–13, 2000–5	Neuroscience	University of Helsinki
F2	SMARAD - CoE in Smart Radios and Wireless Research	AKA5, AKA3	2008–13, 2002–7	Radio science, wireless telecommunications	Aalto University
F3	Finnish Bioeconomy Cluster	SHOK	2007 onwards	Forestry, bioeconomy	(Consortium, no host)
N1	Centre for Cancer Biomedicine	SFF	2007–16	Cell biology, cancer research, biostatistics	University of Oslo
N2	Bjerknes Centre for Climate Research	SFF	2003–12	Geosciences	University of Bergen
N3	Concrete Innovation Centre	SFI	2007–14	Materials, engineering	SINTEF
S1	Organizing Molecular Matter	SRC Linnaeus	2006–15	Physical chemistry	Lund University
S2	Chalmers Antenna Systems Excellence Center	Vinn Exc	2006–15	ICT	Chalmers University of Technology
S3	Neuronano Research Center	SRC Linnaeus	2006–15	Neuroscience, nanotechnology	Lund University

*Full names of funding schemes:

DG CoE: CoE funded by Danish National Research Foundation

DSF Centres: Strategic research centres funded by Danish Council for Strategic Research

AKA (2nd, 3rd and 5th generation): CoE funded by Academy of Finland

SHOK: Strategic Centres of Science, Technology and Innovation funded by Tekes and Academy of Finland

SFF: CoE/(Sentre for fremragende forskning) funded by Research Council of Norway

SFI: Centres for Research-based Innovation funded by Research Council of Norway

SRC Linnaeus: Linnaeus Environments funded by Swedish Research Council

Vinn Exc: VINN Excellence Centres funded by VINNOVA

Other formats

- Multi and cross disciplinary research collaboration with society and business
- Competence centers, partnerships, knowledge hubs - institutions or networks, dedicated to capture, share and exchange development experiences with national and international partners in order to accelerate development.
- Governmental institutions e.g. the German Federal Institute for Risk Assessment (BfR), the Dutch National Institute for Public Health and the Environment or the Australian Centre of Excellence for Biosecurity Risk Analysis

Interview with Mark Burgman is Director of the Centre for Environmental Policy at Imperial College London. Before that he was at the University of Melbourne. Professor Burgman funded the Australian CoE in Risk.

Benefits of CoE

- Attract additional funding, senior researchers and postdoctoral fellows, PhD students, international partners and international visibility

Disadvantages

- It has been shown that the institution who become a CoE need to invest a lot of time in providing support to others so they become less competitive
- A risk for the Matthew effect. The Matthew effect in research is that eminent scientists will often get more credit than a comparatively unknown researcher, even if their work is similar