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# The new Danish Centre of Energy, Environment and Health (CEEH) - basic ideas and framework

**J. Brandt (1)**, L. M. Frohn (1), C. Geels (1), J. H. Christensen (1), K. M. Hansen (1), O. Hertel (1), A. Baklanov (2), A. Gross (2), K. Karlsson (3), L. H. Nielsen (3), E. Kaas (4), M.-L. Siggaard-Andersend (4), T. Sigsgaard (5), J. Sørensen (6), J. S. Nielsen (6), E. M. Flachs (7), J. Bønløkke (7), H. Brønnum-Hansen (7)

(1) National Environmental Research Institute, Aarhus University, Roskilde, Denmark

(2) Danish Meteorological Institute, Copenhagen, Denmark

(3) Risø National laboratory, System Analysis Department, Roskilde, Denmark

(4) Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark

(5)Institute of Public Health, University of Aarhus, Aarhus, Denmark

(6) University of Southern Denmark, Odense, Denmark

(7) National Institute of Public Health, Copenhagen, Denmark

(jbr@dmu.dk)

The objective of the Centre of Energy, Environment and Health (CEEH) is to establish an interdisciplinary based system to optimize future planning of energy production and usage with respect to costs related to the effects on the natural environment and on human health

To ensure the needed interdisciplinary approach the centre includes researchers from meteorology, air pollution modelling, energy production and scenarios, physiology/health impacts and economy. The main outcome of the centre is an integrated regional economic model system including components for air pollution chemistry and dispersion down to urban and sub-urban scales, and model components of the impacts on public health and the external environment as well as economic valuation.

A key element of the CEEH will be to expand, evaluate and apply integrated models for the whole impact pathways, including integrated energy system, emissions, atmospheric chemistry/transport, human exposure, human health models as well as cost models. The main research areas include:

- Modelling and research in atmospheric transport, dispersion, chemistry and faith of pollutants due to energy production and consumption. Both primary and secondary particles as well as chemical gas-phase constituents will be considered. Knowledge of the regional and local environmental burden related to emissions of pollutants and accidental risks from power production is needed for estimation of environmental and health costs.
- Physiological and statistical studies of the impact of atmospheric pollutants on the human body and on health in general. Based on the atmospheric burden these studies will be used to quantify the relative importance and costs of different types and amounts of emissions (as well as other types of environmental impacts).

The grant for CEEH covers a 5-year period from 2007-2011, and the basic model system to be applied in the Centre is the EVA model system (External Valuation of Air pollution) developed at NERI/AU.