

# KlimaCampus Colloquium

Prof. Pavel Kabat

Director General and CEO of the International Institute for Applied Systems Analysis (IIASA), Austria

At the invitation of the Max Planck Institute for Meteorology (MPI-M)

## **Principles and Benefits of Systems Science: The Case of the International Institute for Applied Systems Analysis (IIASA)**

KlimaCampus Hamburg

29.01.2015, 3:15 pm, Bundesstraße 53, room 22/23 (first floor)

### **Abstract**

This International Institute for Applied Systems Analysis was created in the peak of the Cold War during the 1970s and it became a world leading institute for trans-disciplinary and cross-sectorial systems science applied towards multiple aspects of global and regional transformations ranging from environment, energy and climate to financial, economic and demographic transitions. IIASA is an independent, global international science and science to policy institute with currently 22 member countries and more than 2000 international staff, across the an entire range of disciplines, from mathematics to sociology.

Narrowly focused, single-disciplinary science alone cannot adequately underpin policies and solutions to resolve major sustainability challenges. One example of the system's approaches is the IIASA's Global Energy Assessment (GEA), multidisciplinary study, whose findings were released during Rio+20. The GEA links energy to climate, air quality, human health and mortality, economic growth, urbanization, water, land use, and other factors. The GEA scenarios find that energy access for all (by 2050) is possible with co-benefits of limiting warming to 2°C, improving air quality and human health, and stimulating economic growth within a green economy framework.

In addition to GEA, the methodical systems analytical approach will be presented along with several other examples of the science behind systems analysis, including climate and water systems, as well as game theory approaches for governance towards the common good as pursued at IIASA.