

### You are cordially invited to a seminar

### hosted by the Department of Environmental Sciences and Policy

# Future of energy industry from an energy expert's point of view: "The age of closing the loops"



## Dr.Istvan Pataki

Tuesday, November 15, 2016. 5:00pm.

## Budapest, Nádor utca 15, Quantum room 101

**Istvan Pataki** started studies at the Technical University of Budapest mechanical engineering faculty in 1972, specializing in power engineering. Immediately after the democratic changes in Hungary, founded power engineering company named Energopenta. In 2003 was appointed vice president of the Hungarian Energy Office for six years. As the head of the Hungarian Energy Authority participated regularly at the meetings of "CEER" (Commission of European Energy Regulators) in Brussels. At the end of 2004 was selected to be the vice president of CEER.

What nature has created are closed loops only. Good examples are water cycle, CO<sub>2</sub> cycle. And there are many more perfectly closed material and energy loops created by nature. Human civilization is creating open loops only. We burn carbon fuels to cover our energy need and emit carbon dioxide and a lot more hazardous waste into the environment. Renewable energy sources are coming up more and more showing some green light. The best closed energy loop created by mankind till now is the hydrogen energy system. The good solution seems to be to close all energy and manufacturing cycles. This is the reason why the next age after industrial revolution, coal age, oil age, digital age, can be the "age of closing the loops". The today's energy market is fully liberalized and controlled by several authorities. Hopefully the entire industry will be changed to a green and environmentally friendly system. The fuel and the electricity industry will merge. The regulation principles have to be reconsidered.