

## ETH PhD-Academy on Sustainability and Technology 2012

# *Technical Change towards a Low-Carbon Society – The Role of Institutions and Actors*

January 29th – February 3rd, 2012

Hotel Kaubad, Appenzell, Switzerland

Swiss Federal Institute of Technology (ETH)

Zurich (Switzerland)

## *Program*

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Swiss National Science Foundation

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EWZ

ABB

## Sunday, January 29, 2012

- Afternoon                      Individual arrival of participants at the Hotel Kaubad  
(<http://www.kaubad.ch>)
- Train ticket: please buy a one-way. The return to Zurich is organized!
- Taxi shuttle times from Appenzell Station to the Hotel: 5pm and 6 pm
- 19:00                              *Welcome Dinner*

## Monday, January 30, 2012

- 08:00                              *Breakfast*

### I. Introduction

- 09:00-9:30                      **Introduction to the ETH PhD-Academy on Sustainability  
and Technology + Introduction round**  
Tobias Schmidt, ETH Zurich
- 9:30-10:00                      **Getting to know the faculty: Milestones and “the big WHY”?**  
**Jim Watson**
- 10:00-11:00                      **Anna Bergek**
- 11:00                              *Coffee Break*
- 11:30-12:00                      **Margaret Taylor**
- 12:00-12:30                      **Volker Hoffmann**
- 12:30                              *Lunch*

**Monday, January 30, 2012 (continued)**

**II. Frameworks on energy innovation and its drivers**

- 14:00-15:00      **Paper 1: Socio-Technical assessment of low carbon technologies**  
Charlotte Louise Jensen (Aalborg University, Denmark)  
Discussants: Wirth, Dr. Bergek, Dr. Watson
- 15:00-16:00      **Paper 2: Towards a strategic framework for promoting markets for environmental innovations**  
Rainer Quitzow (Free University Berlin, Germany)  
Discussants: Hayashi, Dr. Bergek, Dr. Taylor
- 16:00              *Coffee Break*
- 16:30-17:30      **Paper 3: Multiple Paths to the Same Destination: Social Movements, National Political Institutions, and the Emergence of New Organizational Forms**  
Jocelyn Leitzinger (University of Wisconsin, USA)  
Discussants: Quitzow, Dr. Hoffmann, Dr. Watson
- 17.30-18.30      *Time for bilateral talks or individual activities*
- 19:00              *Dinner*

**Tuesday, January 31, 2012**

08:00                      *Breakfast*

**III. Policy and institutions**

9:00-10:00                **Paper 4: The Potential Impact of Carbon, Capture and Storage on the Diversity of the future UK electricity system**  
Tammy-Ann Sharp (University of Sussex, UK)  
Discussants: Hünteler, Dr. Hoffmann, Dr. Taylor

10:00-11:00              **Paper 5: How Technology-Specific Modes of Knowledge Accumulation affect the Link between Deployment Schemes and Innovation**  
Jörn Hünteler (ETH Zurich, Switzerland)  
Discussants: Friebe, Dr. Bergek, Dr. Taylor

11:15-16:30              *Snow shoe hike & lunch at restaurant Scheidegg*  
*(<http://www.scheidegg-ai.ch>)*

16:30-17:30              **Paper 6: Compulsive Policy-Making – The Evolution of the German Feed-in Tariff System for Solar Photovoltaic Power**  
Jörn Hoppmann (ETH Zurich, Switzerland)  
Discussants: Sharp, Dr. Bergek, Dr. Watson

17:30                      **Introduction to the questions asked by the two companies present at the corporate day + building of groups**  
*Tobias Schmidt*

18:00                      *Dinner*

19:30-21:00              **Discussion on the company questions in two parallel sessions**

## Wednesday, February 1, 2012

08:00                      *Breakfast*

09:00-10:00            **Paper 7: Adjustment of feed-in tariff schemes for dynamic photovoltaic technology development**

Thilo Grau (Climate Policy Initiative (CPI), Berlin, Germany)  
Discussants: Hoppmann, Dr. Hoffmann, Dr. Taylor

10:00-11:00            **Paper 8: Tools in Urban Environmental Governance: Experiences from municipalities requiring sustainable buildings through land allocation agreements**

Nora Smedby (Lund University, Sweden)  
Discussants: Vantoch-Wood, Dr. Taylor, Dr. Watson

11:00                      *Coffee Break*

## III. Developing Countries & Emerging Economies

11:30-12:30            **Paper 9: How we measure Innovation and its effect on Sustainable Development in developing countries**

Pieter van Heyningen (Stellenbosch University, South Africa)  
Discussants: Jensen, Dr. Hoffmann, Dr. Watson

12:30                      *Lunch*

14:00-15:00            **Paper 10: Role of renewable energy support policies in international transfer of wind energy technologies**

Daisuke Hayashi (University of Zurich, Switzerland)  
Discussants: Grau, Dr. Taylor, Dr. Watson

15:00-15:30            *Coffee Break*

15:30-16:30            **Paper 11: The diffusion of technology innovations in challenging environments – the case of Solar Home Systems in bop markets**

Christian Friebe (European Business School, Germany)  
Discussants: van Heyningen, Dr. Bergek, Dr. Watson

*Time for bilateral talks or individual activities*

16:30-18:30

18:30                      *Dinner*

**Thursday, February 2, 2012**

#### **IV. Actors and Networks**

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| 08:00       | <i>Breakfast</i>   |
| 09:00-10:00 | <b>Paper 12: Institutional leverages in technological innovation systems</b><br>Steffen Wirth (EAWAG, Switzerland)<br>Discussants: Leitzinger, Dr. Bergek, Dr. Hoffmann  |
| 10:00-11:00 | <b>Paper 13: Comparing levels of network centrality with technology development within the emerging UK wave energy sector</b><br>Angus Vantoch-Wood (University of Exeter, UK)<br>Discussants: Erlinghagen, Dr. Bergek, Dr. Hoffmann |
| 11:00       | <i>Coffee Break</i>  |
| 11:30-12:30 | <b>Paper 14: Actors from IT and telecommunication sector in the innovation system smart grid</b><br>Sabine Erlinghagen (EAWAG, Switzerland)<br>Discussants: Smink, Dr. Bergek, Dr. Taylor  |
| 12:30       | <i>Lunch</i><br><br><i>Walk to the "town" of Appenzell or other activities</i>   |
| 17:00-18:00 | <b>Paper 15: Technical standards as a strategic tool to restrain disruptive innovation?</b><br>Magda Smink (Utrecht University, Netherlands)<br>Discussants: Smedby, Dr. Hoffmann, Dr. Taylor  |
| 18:30       | <i>Dinner</i>  |
| 20:00-21:30 | <b>Roundtable Discussion: What is a Successful Academic and What is the Key for Becoming One?</b>  |

## Friday, February 3, 2012

07:30                      *Breakfast (please also take a lunch bag)*

### V. Corporate Day (@ ETH Main Building, Zurich)

9:00 – 11:00              Bus transfer to Zurich

11.15                      **Introduction to Corporate Day**  
Volker Hoffmann, ETH Zurich

11:30-12:00              **ewz: Zurich Municipal Electric Utility**  
**Bringing renewables to market**  
Dr. Sophie Wenger, Renewable Energy Trading  
Dr. Stéphanie Engels, Head of Corporate Development

12:00-12:45              **Students' response to initial question and discussion**

13:00                      *Lunch Break on the roof top of ETH's main building (DozFoyer)*

14:00-14.30              **ABB: the company**  
**What is needed to successfully change today's power systems to**  
**enable the reduction of CO2**  
Adrienne Williams, Head of Environmental Affairs  
Prof. Dr. Ing. Jochen Kreusel, Global Head of Smart Grids Program

14.30-15.15              **Students' response to initial question and discussion**

15.15                      **Concluding Remarks, Feedback, and ETH Certificates**  
Tobias Schmidt

Apero: drinks and little snacks  
(if you need to catch a train/flight, you can shorten/skip this part)

16:00                      End of PhD Academy