



Institute of
Development Studies



Tsinghua University
School of Public Policy and Management



Indian Institute of Technology Delhi

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Deutsches Institut für
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Years | 1964 – 2014
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Conference

Technological pathways to low carbon

Competition and collaboration between Europe and emerging Asia

Bonn

German Development Institute / Deutsches Institut für Entwicklungsrecht (DIE)



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Technological pathways to low carbon: Competition and collaboration between Europe and emerging Asia

Bonn, 7-8 April, 2014

German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE)

This is the final conference of an international research project "Technological trajectories for low carbon development in China, Europe and India", generously funded by the Swedish *Riksbankens Jubileumsfond* under a joint call with Volkswagen Foundation and *Compagnia de San Paolo*. The project was jointly carried out by a team of 15 researchers from the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), Institute of Development Studies (IDS) Brighton, Indian Institute of Technology (IIT) Delhi and the School of Public Policy at Tsinghua University between 2011 and 2014. On the basis of case studies on electromobility and wind turbine technologies, the project explored (a) to what extent different initial conditions lead to diverging technological pathways, (b) how this affects global competition and (c) how international low carbon technology cooperation can navigate the trade-offs between national and global interests.

7 April, 2014

9.00	Welcoming remarks: Pathways to low carbon: the technological challenge Prof. Dr. Dirk Messner, Director, DIE
9.15	Introduction to the conference: The 'Technological pathways to low carbon' research agenda Dr. Tilman Altenburg, Head of Department, DIE

I. Concepts

9.30	Creating and disrupting technological pathways for a low carbon transformation Prof. Dr. Arnulf Grüber, International Institute for Applied Systems Analysis and Yale University Discussion
10.10	Low carbon transformation from the angle of political strategy Dr. Matthew Lockwood, University of Exeter Discussion
10.50	Transnational linkages in Asian sustainability experiments Dr. Rob Raven, University of Technology Eindhoven, tbc Discussion
11.30	Coffee break
12.00	Old Europe, emerging Asia: Low carbon innovation in an unequal world Prof. Dr. Hubert Schmitz, IDS Sussex

	<i>Comment: A Chinese viewpoint</i> Dr. Yixin Dai, Assistant Professor, Tsinghua University
12.40	Discussion
13.00	Lunch break

***II. Diverging or converging pathways, implications for national competitive advantages?
Technological pathways in electromobility and wind turbine industries***

This part of the conference presents key findings of our country studies, draws lessons from comparison, and then invites external experts from academia and industry to comment on our findings and offer insights from related research activities.

	<i>Parallel working groups</i>	
	<i>Electromobility</i>	<i>Wind turbine industry</i>
	<i>Project findings</i>	<i>Project findings</i>
14.00	Lessons from China Dr. Chen Ling, Ass. Prof. and Dr. Qunhong Shen, Ass. Prof., Tsinghua University	Key lessons from China Dr. Yixin Dai, Ass. Prof., Dr. Yuan Zhou, Ass. Prof., Tsinghua University
14.20	Lessons from India Ankur Chaudhary, Researcher Indian Institute of Technology, Delhi	Key lessons from India Ankita Narain, Researcher Indian Institute of Technology, Delhi
14.40	Lessons from France and Germany Dr. Tilman Altenburg, DIE, and Prof. Dr. Eike Schamp, Frankfurt University of Frankfurt	Key lessons from Denmark and Germany Dr. Rasmus Lema, Ass. Prof, Aalborg University, and Dr. Frauke Urban, SOAS, University of London
15.00	Lessons from the comparison of four countries Prof. Dr. Doris Fischer, University of Würzburg	Lessons from the comparison of four countries Dr. Rasmus Lema, Ass. Prof., Aalborg University
15.20	Discussion	Discussion
16.00	<i>Coffee break</i>	
	<i>Comments from external experts</i>	<i>Comments from external experts</i>
16.30	Prof. Dr. Bernard Jullien, École normale supérieure de Cachan and director of GERPISA	Prof. Poul Houman Andersen Aalborg University
16.50	Prof. Dr. Henning Hinderer and Prof. Dr. Guy Fournier University of Applied Sciences Pforzheim	Prof. Dr. Rainer Walz Fraunhofer ISI
17.10	Prof. Dr. David Tyfield Lancaster University	Dr. Christian Thiel, tbc Vice President Business Development & Marketing, Senvion
17.30	Discussion	Discussion
18.30	Drinks in the foyer	

8 April, 2014

9.00	Assessing China's role in low carbon technology collaboration and competition Prof. Dr. Xue Lan, Dean, School of Public Policy, Tsinghua University Comment: Prof. Dr. Doris Fischer, Uni Würzburg
9.40	Discussion
10.00	Assessing technological trajectories from a low carbon perspective: On effective low carbon innovations, green-washing and rebound effects Prof. Dr. Ambuj Sagar, Indian Institute of Technology, Delhi Comment: Prof. Dr. Peter Hennicke, Wuppertal Institute
10.40	Discussion
11.00	Coffee break

III. Policy implications: Supporting technology cooperation in contested markets

This part of the conference presents important bilateral and multilateral experiences in low carbon technology cooperation and discusses general lessons for low carbon technology cooperation. The main emphasis is on practical ways to balance each nation's interest in developing competitive advantages with the need for rapid global deployment of low carbons solutions.

11.30	Supporting international technology cooperation in contested markets Dr. Tilman Altenburg, DIE / Shikha Bhasin, Energy Research Centre of the Netherlands	
12.00	Bilateral cooperation: Balancing national and global interests in electromobility programmes with China and India Dirk Arnold, Federal Ministry for Economic Affairs and Energy, tbc	
12.30	Lunch break	
	Balancing national and global interests: Opportunities and limitations of technology cooperation Parallel working groups	
14.00	Bilateral technology cooperation Markus Becker, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, or Armin Wagner, GIZ, tbc Dr. Michael Köberlein, German Federal Ministry of Economic Cooperation and Development Anders Højgaard Kristen, Danish Energy Agency, tbc Chair: Prof. Doris Fischer, University of Würzburg	Multilateral technology cooperation Tali Trigg, International Energy Agency, Energy Technology Policy Division Dolf Gielen, Director, IRENA Innovation and Technology Centre Dr. Uwe Weber, Team Leader, EU SWITCH-Asia Network Facility Chair: Prof. Dr. Ambuj Sagar, Indian Institute of Technology, Delhi
15.30	Summary of findings: Perspectives for international technology cooperation Prof. Dr. Doris Fischer & Prof. Dr. Ambuj Sagar Discussion	
16.30	End of conference	

Your directions to the German Development Institute /
Deutsches Institut für Entwicklungspolitik (DIE)

Tulpenfeld 6
D - 53113 Bonn

From Bonn Central Station (*Hauptbahnhof*):

Take the U-Bahn U 16/ U 63 or U 66 to "Heussallee/Museumsmeile". Take the exit Heussallee. Turn right after 50 m onto the footpath towards the office complex 'Tulpenfeld'. Follow the signs across Tulpenfeld to the building of DIE at Tulpenfeld 6.

The buses No. 610 and 611 run from the train station Bonn *Hauptbahnhof* to the bus stop "Heussallee/Museumsmeile". Turn onto the footpath towards the office complex 'Tulpenfeld'. Follow the signs across Tulpenfeld to the building of DIE at Tulpenfeld 6.





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