





MAY 9-10, 2019 JAPANESE-GERMAN CENTER BERLIN (JDZB)

## INNOVATION IN EAST ASIA GLOBAL CONTEXT: E-MOBILITY AND URBAN SYSTEMS



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#### **Editorial**

Innovation is a constant feature of our lives. And innovation is not just an issue of new engineering techniques and digital gadgets. Innovation is a social phenomenon. Societies and their cultural roots determine the incentives that trigger innovation efforts, give direction to these efforts and eventually govern the adoption (or rejection) of innovations in the social, political and economic realm. These cultural roots of innovation dynamics are at the heart of the different development trajectories we observe all over the world, and the different socio-political "equilibria" existing on the global map.



A region that has shown exceptional dynamics and innovative strength in recent years and decades is East Asia. Societes in China, Japan and (South) Korea have not only facilitated truly disruptive innovations in a multitude of technology fields, but also in the social and political realms. How can we understand what is happening in East Asia and is there something we can learn for our own societies?

The IN-EAST School of Advanced Studies has looked into these phenomena in great detail. Bringing together scientists from various disciplines, including cultural studies, various fields of engineering, economics, political and social sciences, the Advanced School has set out to decipher the intricate interdependencies between the various spheres of live that determine innovation. In the focus of these efforts have been the specific innovation dynamics in urban systems and alternative propulsion systems (e-mobility) – areas where dramatic technical advances require a re-thinking of socio-political regimes, man-technology relations and the borderline between national and transnational spheres.

At the conclusion of this joint research effort, insights and perspectives gained in the various sub-projects will be presented at this Symposium *Innovation in East Asia in Global Context: E-Mobility and Urban Systems*. The symposium is jointly organized by the Japanese German Center Berlin and the Advanced School. It shall provide a forum for debates and discussions with experts from society, politics and economics to highlight the specific characteristics of East Asia and Europe and to explore possibilities and mechanisms to learn from each other.

The IN-EAST School of Advanced Studies gratefully acknowledges six years of generous support by the Federal Ministry of Education and Research.

Markus Taube

Director, IN-EAST School of Advanced Studies



#### Welcome

For both Germany and Japan innovation is crucial not only to overcome the problems of a shrinking workforce and to keep the economic competitiveness, but to respond to social changes and a changing global environment. To get a better understanding of innovation processes and their possibilities and limits is of major interest to both countries.



The Japanese-German Center Berlin (JDZB) is a unique bilateral institution supported by the Ministry of Foreign Affairs, the German Foreign Office and the Land of Berlin. Its central task is "to promote and deepen Japanese-German and international cooperation in the fields of science

and culture" – as set out in its Foundation Charter more than 30 years ago. Since then, our societies and the political and economic contexts have changed, in Europe as well as in Asia and the world. While the JDZB continues to foster bilateral German-Japanese exchange, the multilateral perspective has therefore gained importance also in the conferences that the JDZB organizes.

To host the conference "Innovation in East Asia in Global Context: E-Mobility and Urban Systems" in cooperation with the IN-EAST School of Advanced Studies seems therefore a perfect match.

A warm welcome to all experts and guests. I am looking forward to new insights and fruitful discussions.

Claudia Schmitz

Secretary General, Japanese-German Center Berlin



### Thursday, May 9, 2019

10.30	Bus Service	from	Hotel	to	JDZB

11.00 Registration

#### 11.30 Welcome

#### 12.30 Keynote: The Future of Mobility in Urban Areas

Tim SCHWANEN University of Oxford

13.00 Lunch

#### 14.00 Panel: E-Mobility

Chair: Shuanping DAI University of Duisburg-Essen

#### E-Mobility and Automated Driving: Perspectives from Engineering

**Dieter SCHRAMM** University of Duisburg-Essen

#### The E-Mobility Future in the Carsharing Systems in France and Japan

Yveline LECLER and Bruno FAIVRE D'ARCIER University of Lyon

#### E-Mobility in China

Mira SCHÜLLER University of Duisburg-Essen

15.30 Coffee Break

#### 16.00 Panel: Smart City

Chair: Florian COULMAS University of Duisburg-Essen

## Smart Cities and Societies – First Results on Urban Digitization in India, China and Germany

Jörg Rainer NOENNIG HafenCity University Hamburg

# Cologne – Smart City in the Making: For an Integrated Approach Towards a Climate-Friendly and Liveable Cologne

Minh-Chau TRAN Coordination Unit for Climate Protection, City of Cologne

## Understanding the Japanese Innovation System of Smart Cities: Knowledge, Actors, and Institutions

Masaru YARIME Hong Kong University of Science and Technology

17.30 Break

#### 17.45 Roundtable: Mobility in the City of the Future

Chair: Jens Martin GURR University of Duisburg-Essen

Bruno FAIVRE D'ARCIER University of Lyon

Jörg Rainer NOENNIG HafenCity University Hamburg

**Dieter SCHRAMM** University of Duisburg-Essen

Tim SCHWANEN University of Oxford

Minh-Chau TRAN Coordination Unit for Climate Protection, City of Cologne

Masaru YARIME Hong Kong University of Science and Technologiy

18.30 Dinner

20.30 Bus Service from JDZB to Hotel



### Friday, May 10, 2019

8.20 Bus Service from Hotel to JDZ	8.20	Bus	Service	from	Hotel	to	JDZ
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#### 9:00 Keynote: Mobile Innovations: Actors, Institutions, Politics, and Space

**Eugene McCANN** Simon Fraser University, Vancouver

#### 10:00 Panel: Urban Concepts in Global and Local Context

Chair: Axel KLEIN University of Duisburg-Essen

## The Spread of the Garden City Concept in the Early 20th Century – and Implications for the Study of Travelling Concepts

Jens Martin GURR University of Duisburg-Essen

## Reforming Urban Renewal and Learning from Abroad: An Assessment Based on the Case of Yangzhou (Jiangsu)

Giulia ROMANO University of Duisburg-Essen

11:00 Coffee Break

# 11:30 Panel: From West to East to West: New Production Concepts in the Automobile Industry

Chair: Helmut DEMES University of Duisburg-Essen

#### **Evolution and Diffusion of Toyota/Lean Manufacturing Capability**

Takahiro FUJIMOTO University of Tokyo

#### **Lean Production in Germany**

**Ulrich JÜRGENS** Berlin Social Science Center

12:30 Lunch

#### 13:30 Roundtable: Institutional Learning

Chair: Markus TAUBE University of Duisburg-Essen

Takahiro FUJIMOTO University of Tokyo

Jens Martin GURR University of Duisburg-Essen Ulrich JÜRGENS Berlin Social Science Center

Eugene McCANN Simon Fraser University, Vancouver

Giulia ROMANO University of Duisburg-Essen

14:15 Wrap up and Closing

Markus TAUBE University of Duisburg-Essen

14:30 End of the Symposium

# 14.30 Closed Workshop: 6 Years IN-EAST School of Advanced Studies: Achievements, Shortcomings, Perspectives

Discussion of all project participants in different working groups (appr. 2 h)



#### **FINAL CONFERENCE 2019**

## **ABSTRACTS AND BIOGRAPHIES**

#### The Future of Mobility in Urban Areas

Tim SCHWANEN

Oxford University

#### Abstract

Around the planet urban mobility is undergoing a series of rapid and profound changes – transitions – that are driven primarily by population growth and urbanisation; technological innovation related to propulsion and IT/AI; the sustainability agenda; and globalisation. This keynote lecture will summarise key developments and discuss potential implications for how urban



mobility might look like by the middle of 21st century, with a specific focus on East Asia. Drawing on recent thinking across the fields of innovation studies, mobilities scholarship and urban and transport geography, it will critically engage with technologically deterministic understandings of the future of urban mobility. It will instead argue that ongoing transition dynamics need to be understood as profoundly socio-politico-economic transformations that reconfigure not only mobility within bounded urban areas but also the broader territorial formations and relational networks within which those areas are situated. The lecture will also explain how and why those transformations require new conceptual categories that go beyond conventional classifications (e.g. public and private transport, city and suburban), as well as novel modes of thinking about policy with regard to urban mobility.

**Tim Schwanen** is Associate Professor in Transport Studies and Director of the Transport Studies Unit at the University of Oxford. Before coming to Oxford he worked as a lecturer in urban geography at Utrecht University, the Netherlands where he also completed his PhD dissertation (2003, cum laude) and M.Sc. dissertation (1999, cum laude). Tim's research is international in outlook, interdisciplinary in scope and located at the intersection of urban, transport, cultural, political and economic geography. It covers a wide range of themes and topics relating to cities and the mobility of people, good and information, including processes of transition towards low-energy and just mobility systems.



### E-Mobility and Automated Driving: Perspectives From Engineering

#### Dieter SCHRAMM

University of Duisburg-Essen, Center Automotive Research, Department Chair of Mechatronics

#### **Abstract**

The individual transport system currently experiences an area of innovations to an extend that has not yet been experienced before. Until recently, systems like lane-keeping assistants or intelligent headlight controls were



pure visions. Today however, many new cars are already equipped with this kind of systems. To be mentioned are in particular two areas of innovation, comprising the potential to revolutionize the entire individual transport system. One of them being the replacement of the internal combustion engine by completely or partly electrified propulsion systems. The second one is autonomous driving with its milestones assisted and highly automated driving.

The presentation will highlight the above-mentioned main trends in the automotive industry. Thus, some aspects of current developments in the areas of electro mobility and autonomous driving will be covered. The impact of the new systems on traffic flow, pollution and energy consumption will be illustrated by briefly summarizing the results of various fleet tests and contemporary examples from vehicle development.

**Dieter Schramm** studied Mathematics at the University of Stuttgart and subsequently obtained his doctorate there at the Department of Mechanics in the field of theoretical mechanics. From 1986 he worked at Robert Bosch GmbH in various functions in research and development, most recently as senior head of department for starter development. In 1999 he joined Tyco Electronics Ltd. and held positions as Managing Director of the company's subsidiary pretema, Director of Global Research and Product Development as well as in Marketing of the Mechatronic Products Division.

Starting in 2004, Prof. Schramm heads the Department of Mechatronics at the University of Duisburg-Essen. Since 2006 he is also elected Dean of the Faculty of Engineering Sciences. Prof. Schramm is also director of the Institute Center of Automotive Research, shareholder and board member of the companies D+S Automotive GmbH and Automotive Executive Education UG, both located in Duisburg, as well as member of the board of Mercator Science & Education Ltd. based in Kuala Lumpur.

His main areas of research and teaching are in the areas of manipulator control, electromobility and alternative propulsion systems, vehicle dynamics systems, driver assistance systems and highly automated driving.



# The E-Mobility Future in the Carsharing Systems in France and Japan

#### Bruno FAIVRE D'ARCIER

Transport Urban Planning Economics Laboratory, University of Lyon

#### Yveline LECLER

Institute of East Asian Studies, University of Lyon: SciencesPo Lyon

#### **Abstract**

Governments and cities are promoting e-mobility to reduce  $CO_2$  emissions and limit air pollution. Carsharing with Electric Vehicles (EVs) is seen as a way to boost EVs sales through the visibility it gives them, the role it could play in deploying a vast network of charging stations or thanks to the testing ground that it offers to people who, through use, are likely to reduce their apprehension about the limited autonomy and the length of charging time. Observations and interviews in Japan and in France, both late-comers with regard to the development of carsharing, however, show a very contrasting situation, whether it is the services offered (round-trip or one-way) or vehicles used (EVs, micro-EVs or conventional cars). Using empirical





cases to analyze in both countries, the various factors explaining these differences, whether at the institutional or regulatory level, or in the strategy of the different public or private actors involved, the presentation will attempt to highlight the main obstacles to car-sharing expansion, especially car-sharing with EVs, and the conditions for its future development.

**Bruno Faivre d'Arcier** is Emeritus Professor in City Planning and Transport Studies at the Faculty of Economics and Management of the University of Lyon (Lyon 2) and is researcher at the Transport Urban Planning Economics Laboratory (LAET) of the University of Lyon, France. Engineer and economist, he started his career at the National Institute of Transport Research (Ministry of Transport), before joining the University in 1999 where he was the co-director of a Master degree diploma on Urban and Regional Passenger Transport Studies. His research activity focuses mainly on local transport and mobility policies covering several approaches: assessment of public policies (Sustainable Urban Mobility Plans) and transport investments (Cost Benefit Analysis; Public Private Partnership); improvement of PT funding; analysis of PT service performance; analysis of new mobility practices, such as electro-mobility, bike-sharing and carsharing.

**Yveline Lecler** is Emeritus Professor at SciencesPo Lyon (University of Lyon) and senior research fellow at the Institute of East Asian Studies (CNRS, ENSL). She holds a PhD in Social Sciences from EHESS (Paris) and an MA in Japanese language and civilization from INALCO (Paris). She has been Senior Research Fellow at the French research Institute Abroad (UMIFRE 19, MAEE, CNRS), Maison Franco-Japonaise of Tokyo from 2008 to 2010, and invited professor or researcher at several Japanese Universities (Chuo University, the University of Tokyo, GRIPS, Kwansei Gakuin University, Kansai University). Member of the Gerpisa, International Network of the Automobile and of the French Network of Asian Studies (GIS Asia), she is also Member of the european network East Asia Net. Specialized in Japanese political economics, her recent researches focus on innovation policies, presently in relation with energy management, low carbon cities, new generation vehicles and E-mobility.



#### E-Mobility in China

Mira SCHÜLLER

University of Duisburg-Essen

#### **Abstract**

The automotive industry is undergoing a phase of reorientation. Thereby, political, social and technical megatrends drive the automation and electrification of the automotive drivetrain. At the same time, vehicles have to cope with the mobility needs of a changing global world. Especially the complete drivetrain electrification provides new possibilities in vehicle design that



exceed a mere exchange of the drivetrain with a consistent vehicle design. This method known as purpose design offers a design that is targeted on the mobility need of the target customer group and was applied on a couple of electric vehicles on the market already. The presentation aims to contribute to an understanding of future vehicle design trends for electric vehicles. For this purpose, vehicles on the market but also the mobility and driving behavior based on real driving data are analyzed. In contrast to other studies, a focus on a cross-national perspective is set and considers the two markets China and Germany in particular.

**Mira Schüller** was born in Hannover, Germany. She studied Mechanical Engineering and Management at the University of Duisburg-Essen in Germany and visited the China University of Mining and Technology as an exchange student. She received her B.Sc. in 2012 after doing her bachelor thesis at a German automaker and graduated 2014 with a M.Sc. after completing her master thesis at a construction machines company. After graduating she joined the E-Mobility research group of the IN-EAST School of Advanced Studies and works as a research associate at the Chair of Mechatronics. She is doing her PhD in the field of Electric Mobility. Due to her experience abroad in High School and University she is fluent in Chinese.

# Smart Cities and Societies – First Results on Urban Digitization in India, China and Germany

Jörg Rainer NOENNIG HafenCity University Hamburg

#### **Abstract**

In various regions, the term smart city has found different interpretations and implementations. Countries such as China and India have launched extensive Smart City programs for which first results can be reviewed now. While in China e.g. urban digitization seems targeting at normative gov-



ernance of the urban society, Indian Smart City approaches pursue more pragmatic goals such as mobility or waste management, addressing an urban society that is only at the beginning of a wave of urbanization. These models can be contrasted with the approaches and projects of a "Smart City Made in Germany" (Smart City Charta, BBSR), which are less based on technological approaches but on socio-technical models of integrated and sustainable urban development – an approach that is strongly promoted within international cooperation projects. In this context, so-called "Hyper-Locality" approaches are of special interest, as they are based on the usage of locally generated data for the development of local products and services.



Jörg Rainer Noennig (\*1973) is Professor for Digital City Science at the CityScienceLab at HafenCity Universität Hamburg and Director of the WISSENSARCHITEKTUR Laboratory of Knowledge Architecture at TU Dresden. From 1992 to 1998, he studied architecture at Bauhaus Universität Weimar, Polytech Krakow and Waseda University Tokyo. Between 1998 and 2001 he practiced as architect in Tokyo, among others at Ishiyama Experimental Underground Architecture Factory, at Arata Isozaki & Associates, and as a freelance architect. From 2001 he was Research Associate at TU Dresden, where he was appointed Junior Professor for Knowledge Architecture (2009–2015). In 2007 he received his doctoral degree from Bauhaus Universität Weimar. He taught at different universities in Japan, USA, China, Italy, Switzerland and Angola, and was Visiting Professor at Università degli Studi dell l'Aquila, ISEN Toulon, and Voronezh State Technical University. He has published several books and more than 100 scientific papers and essays. He has won several prizes, scholarships and awards, incl. the Grand Prize of the European Association for Architecture Education (EAAE). Since 2007 he is married to Yoco Fukuda-Noennig; they have two children.

Within the topic field "Digital City Science", Jörg Rainer Noennig's scientific work focuses on the generation, integration and creative synthesis of urban and environmental data. With his interdisciplinary research teams of the CityScienceLab@HCU Hamburg and the WISSENSARCHITEKTUR Laboratory of Knowledge Architecture@TU Dresden he develops new tools and approaches for data-driven urban and architectural design. Over the past five years, he and his teams have acquired national and international research funding of >7 Mio. Euro. Current key projects are *U\_CODE Urban Collective Design Environment* (H2020 2016–2019), *TRAILS Travelling Innovation Labs and Services* (InterReg 2016–2018) and *Urban Data Hub* (Hamburg 2017–2020) which he coordinates.

# Cologne – Smart City in the Making: For an Integrated Approach Towards a Climate-Friendly and Liveable Cologne

#### Minh-Chau TRAN

Coordination Unit for Climate Protection, City of Cologne

#### **Abstract**

The SmartCity Cologne (SCC) initiative was launched in 2011 by Rhein-Energie AG and the City of Cologne. SCC is a coordination and communication platform for networking and promoting activities. They follow an integrated approach to increase climate protection, promote sustainable



urban development and greater energy efficiency. A smart city is being understood as an intelligent, future oriented and liveable city that generates and utilizes technical and social innovations as well as being developed holistically and interactively. In doing so, the possibilities of digitization are exploited and innovations are promoted. SCC is to make climate protection visual and tangible for local citizens. SSC explicitly addresses all actors of urban society. They are encouraged to actively work on SSC to jointly shape sustainable urban development in Cologne. From the practice perspective insights on selected activities and projects will be given.

**Minh-Chau Tran** has been project leader for SmartCity Cologne in the Coordination Unit for Climate Protection at the city of Cologne since 2018. She has been working in the fields of smart city, health-oriented mobility behavior, walkability, public spaces, and digital analysis and participation tools. From 2009 till 2018 she was post-doctoral research associate at the Institute of City Planning



and Urban Design at the University of Duisburg-Essen. She studied architecture at the University of Karlsruhe and finished her PhD in the field of Landscape Architecture and Urban Design. She was also scholarship holder of the State Graduate Funding of Baden-Württemberg, and worked as a free-lancer in several planning offices in Karlsruhe and Cologne. Since 2008 she has been member of the Association of Town, Regional and State Planning (SRL). From 2013 to 2018 she held membership in the working committee *Planning for Health Promoting Urban Regions* at the Academy for Spatial Research and Planning (ARL).

### Understanding the Japanese Innovation System of Smart Cities: Knowledge, Actors, and Institutions

#### Masaru YARIME

Division of Public Policy, Hong Kong University of Science and Technology, Hong Kong; Department of Science, Technology, Engineering and Public Policy, University College London, United Kingdom; Graduate School of Public Policy, The University of Tokyo



#### **Abstract**

In our efforts to promote an urban sustainability, the transformation to smart cities will play a significant role. As smart cities are based on advanced systems of hardware and software - covering various types of products and services relevant to urban functions - innovation for smart cities requires a significant degree of diversity in knowledge, actors, and institutions. Hence it is important to understand the characteristics of the innovation system in smart cities and to introduce policies that will promote forms of innovation that incorporate local conditions and contexts. In this presentation, the innovation system of smart cities in Japan is examined to consider implications for public policies and institutional design. The analysis reveals a concentrated structure dominated by large actors, particularly in the public sector and the electric (power generation and distribution) and electronics (appliance and equipment) industries, with knowledge and technological domains concerning renewable energy, energy storage, community energy management, and applications for home appliances and electric vehicles. Policies and regulations influencing the innovation system of smart cities include economic incentives to promote renewable energy technologies, liberalization of energy markets for new entrants, participatory processes of road-mapping on key technologies, localization of demonstration projects reflecting specificities, standard setting for component technologies, and platform creation for stakeholder partnerships including academia, industry, government, and civil society. A key implication for public policy is to facilitate communication and engagement with end users in jointly creating innovation for smart cities.

Masaru Yarime is Associate Professor at the Division of Public Policy in the Hong Kong University of Science and Technology. He also has appointments as Honorary Reader at the Department of Science, Technology, Engineering and Public Policy in University College London, Visiting Associate Professor at the Graduate School of Public Policy (GraSPP) in the University of Tokyo, and Visiting Scholar at the Japan International Cooperation Agency Research Institute. He has been awarded Abe Fellowship by the U.S. Social Science Research Council. His research interests center around science, technology, and innovation policy for energy, environment, and sustainability. He has contributed to many international initiatives, including the United Nations Environment Programme Finance Initiative on Environmental Risk Integration in Sovereign Credit Analysis, Intergovernmental



Panel on Climate Change Working Group III Fifth Assessment Report, and the Expert Group on Policy Support Tools and Methodologies of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Currently he is serving on the editorial board of the international journals, Sustainability Science, Environmental Innovation and Societal Transitions, and Frontiers in Energy Research – Energy Systems and Policy. He received B.Eng. in Chemical Engineering from the University of Tokyo, M.S. in Chemical Engineering from the California Institute of Technology, and PhD in Economics and Policy Studies of Innovation and Technological Change from Maastricht University in the Netherlands. His previous positions include Senior Research Fellow at the National Institute of Science and Technology Policy. Personal Web Page: http://yarime.net/

#### Mobile Innovations: Actors, Institutions, Politics, and Space

#### Eugene McCANN

Simon Fraser University, Vancouver

#### **Abstract**

How can we conceptualize the ways in which urban actors engage globally to define, legitimate, and circulate 'best practices' and policy models? In this presentation, I will elaborate on the 'policy moibilities' approach, which has been developed in geography and related disciplines over the last decade. This approach draws attention to the actors and institutions that are



key to circulating policy knowledge and policy models globally. It also highlights the persuasive and pedagogical tactics involved in policy mobilization. Moreover, it highlights the political dimensions of policy innovation: its ideological context, the interests served by defining certain strategies and approaches as widely-applicable models, and the struggles that emerge in particular localities as models emerge within them or are introduced to them. I will detail a series of themes within the policy mobilities approach before turning to the question of innovation, specifically. This concluding discussion will emphasize innovation's territorial and relational aspects and will argue that innovation is both spatial and political.

**Eugene McCann** is University Professor of Geography at Simon Fraser University, Vancouver, Canada. An urban political geographer, he researches policy mobilities, urban policy-making, development, public space, and planning. He is co-editor, with Kevin Ward, of *Mobile Urbanism: Cities & Policy-Making in the Global Age* (Minnesota, 2011) and of *Cities & Social Change: Encounters with Contemporary Urbanism*, with Ronan Paddison (Sage, 2014). He is co-author, with Andy Jonas and Mary Thomas, of *Urban Geography: A Critical Introduction* (Wiley, 2015). He publishes in journals including the *Annals of the American Association of Geographers, Environment and Planning A*, the *International Journal of Urban & Regional Research, Urban Geography*, and *Urban Studies*. He is managing editor of *EPC: Politics & Space*, a journal of critical research on the relations between the political and the spatial.



## The Spread of the Garden City Concept in the Early 20th Century – and Implications for the Study of Travelling Concepts

#### Jens Martin GURR

University of Duisburg-Essen

#### **Abstract**

Policy mobility has come to be recognized as a major factor in global policy developments and various attempts have been made to identify key actors, mechanisms and contextual factors crucial to its understanding. However, the



ways in which policies concretely travel still remains understudied: The overwhelming majority of studies on policy mobility across disciplines – whether they take an institutional, actor-centric approach, a "cultural fit" approach studying the compatibility of belief systems, or a global convergence approach – appear to have a blind spot in the analysis of how, i.e. in what material form, such ideas actually travel. Moreover, even where contributions do mention "document analysis" as a research method, there is generally little to no engagement with the materiality, mediality and narrativity of the actual documents, speeches, etc. involved. Here, a literary and cultural studies approach that proceeds by means of a close reading of the material and pays attention, for instance, to rhetoric, iconography, or intertextuality might profitably supplement existing approaches to the study of policy mobility and diffusion.

The virtually global spread in the early 20th century of the "Garden City Movement" initiated by Ebenezer Howard's Garden Cities of Tomorrow (1902, rev. 2nd ed. of what in 1898 was called To-Morrow: A Peaceful Path to Real Reform) will serve as a case study here. Howard lived in the US from 1871 to 1876, both as a farmer in Nebraska and in Chicago, and the "garden city script" resonates with anti-urban sentiments that are not only typical of a - broadly speaking - English tradition of Romantic anti-urbanism, but also of a specifically American anti-urbanism. Thus, what has generally been regarded as the global diffusion of a quintessentially "English" script – the establishment of greener, less crowded cities (in effect mostly really suburbs) as a response to the living conditions in industrial cities under free-market capitalism - on closer inspection turns out to have been based on a far more complex transatlantic - and later global - exchange of ideological preconceptions, interpretive patterns, narratives, imaginaries, and iconographies. In sum, it can be shown that the frequently scripted nature of blueprints for urban development relies on narrative acts, generic formula, medial forms and structures, figural thought, and cognitive models, and thus on processes of narrativization, mediation, and figuration (both in the sense of personification and condensation into figures of thought) – and that a literary studies approach to policy diffusion might therefore profitably complement existing approaches. This, the paper will show in conclusion, can also be profitably applied to more recent globally circulating blueprints such as notions of the "Smart City", "EcoCity", "Healthy City", or the "Creative City".

Jens Martin Gurr has been Chair of British and Anglophone Literature and Culture at the University of Duisburg-Essen since 2007. His research interests include urban studies (urban literature, theories/methods of interdisciplinary urban research, narrative models of urban complexity, scripts and travelling concepts in urban development), contemporary Anglophone fiction, and 17th- to 19th-century British literature. Since 2008, he has been speaker of the university's Joint Center Urban Systems; since 2017, he has been speaker of the competence field "Metropolitan Research" of the University Alliance Ruhr. He is a member of the University of Duisburg-Essen's University Council and President of the German Society for English Romanticism. Co-edited volumes include Understanding Complex Urban Systems: Multidisciplinary Approaches to Modeling (Springer, 2014), Cityscapes in the Americas and Beyond: Representations of Urban Complexity in Literature and Film (WVT, 2011), as well as Romantic Cityscapes (Trier: WVT, 2013). He is currently working on a monograph entitled Charting Literary Urban Studies.



### Reforming Urban Renewal and Learning from Abroad: An Assessment Based on the Case of Yangzhou (Jiangsu)

#### Giulia ROMANO

University of Duisburg-Essen

#### **Abstract**

The presentation is based on a research project that focused on the transfer of a concept of urban renewal developed in Berlin in the 1970s–1980s to the Chinese city of Yangzhou. The transfer occurred via a cooperation project run in the early 2000s by the German cooperation agency GTZ, to-



day GIZ. The transferred concept is commonly translated as "careful urban renewal", in German behutsame Stadterneuerung, and it proposes an approach to urban renewal that is careful to the existing buildings, the existing urban structures, the existing uses of the space, as well as to the needs of residents. The case of the transfer of this concept to Yangzhou is an interesting case study as it represents an example of bilateral cooperation project with China in the name of "sustainable urban development" or "eco-city development". These projects were very in vogue in the early 2010s and still concern several Chinese cities. This research attempted at looking into one of these cases, studying what happens in these collaborative projects, what the impacts of international cooperation are, whether concepts and ideas developed elsewhere (in this case in a German city) can find a useful application in another context like a Chinese city, and how they are transferred and adopted locally.

**Giulia C. Romano** is Postdoctoral Researcher at the Institute of East Asian Studies of the University of Duisburg-Essen. She completed her doctoral studies in 2017 at Sciences Po-Paris, focusing on the transfer of concepts of sustainable urban development from Europe to China. In 2012, she obtained a Bachelor degree in Chinese Language and Literature from the University of Paris VII-Denis Diderot. Previously, she studied at the Faculty of Political Sciences of the University of Turin (Italy), where she obtained a Master degree in European Studies in 2009, and a Bachelor in International Relations (Development Studies and International Cooperation) in 2007. Her researches at IN-EAST focus on the appropriation of foreign models of city governance and on the introduction of methods for resident participation in Chinese cities.

# Evolution and Diffusion of Toyota/Lean Manufacturing Capability

#### Takahiro FUJIMOTO

University of Tokyo

#### **Abstract**

This presentation explores the evolutionary process that created Toyota Production System (TPS), Lean Production System (LPS), and more generally, Toyota-style manufacturing capability (TMC) in the Japanese automobile industry, as well as its diffusion to other countries and industries. Here,



we regard a manufacturing capability as a system of interconnected organizational routines that competitively govern the flows of value-added from the firms to the customers. As such, we may regard a manufacturing capability as a local institution, as a system of value-flow-controlling routines



that exist within organizations, sites, firms or industries. The following topics will be discussed: (i) Structures of TMC as organizational routines; (ii) Functions of TMC as productive performance; (iii) Evolution of TMC as multi-path system emergence; (iv) Diffusion of TMC to western countries – with or without misinterpretations; (v) Diffusion of TMC to other industries – with or without misinterpretations.

**Takahiro Fujimoto** is Professor of Economics at the University of Tokyo and Executive Director of the Manufacturing Management Research Center (MMRC). He is also Faculty Fellow of the Research Institute of Economy, Trade and Industry, and Senior Research Associate at Harvard Business School. He specializes in technology and operations management. Takahiro Fujimoto graduated from Tokyo University and joined Mitsubishi Research Institute in 1979. He received his doctoral degree from Harvard Business School in 1989.

#### Lean Production in Germany

#### Ulrich JÜRGENS

Berlin Social Science Center

#### **Abstract**

The talk is about the 'learning from Japan' movement concerning the production systems of Japanese companies in the 1980s. Germany was an unlikely country for adopting these new concepts. The institutional setting as well as the strategies of production modernization of industrial companies followed a very different path. Germany was a slow adopter at first but



demonstrated an unexpected degree of flexibility and pragmatism later on. In the talk the learning process in its different stages will be introduced. The astonishment of practitioners, the search for reasons, and the attempts to transfer of elements of the Japanese production system will be described and reflected from the perspective of my own research activities.

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