



Syllabus

Specialization Module: Analyzing Mega Projects

Room: FMA/00.06

Time: Monday, 14-16 h

Start: 16th of October 2017

Notes:

The seminar will be taught in English.

Registration:

Via FlexNow! From September 1st until November 5th, 2017 or during the first lesson.

Office hours:

Wednesday, 14-16 h and by arrangement

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Course description:

The infamous delays and cost-overruns of the Berlin-Brandenburg Airport, Stuttgart 21 and the Elbphilharmonie have created the idea that somehow Germany does not get big projects done properly any longer. But while people such as Mario Barth may find it hard to believe, 'failure' in this sense is the rule rather than the exception for such 'mega projects' worldwide. This is due to the unique combination of actors, technological aspects and complex context conditions preventing the application of any simple and general formula. That said, the successes and failures of mega projects can be studied and understood adequately when their complex nature is considered. By providing the necessary conceptual and methodological tools, this seminar will teach you how.

First, we introduce the topic of 'megaprojects' by exploring how they can be defined, why they exist and what typical sources of failure haunt them. Then we take a look at the 'conventional' approach to engaging in megaprojects and learn about the basics of risk management in construction projects.

Before the background of these basics, we look in more detail at the 'performance drivers' of megaprojects, namely governance structures, accountability, and the way complexity is coped with. While empirical examples will be frequently referred to for illustration purposes, this block of sessions is largely theoretically focused.

Next, we will have a brief interlude on methods used to study megaprojects. Depending on the research question, both qualitative and quantitative methods can be fruitfully

applied. It is important, however, that the complexity of these endeavours is duly accounted for. Thus, while methods you have mastered elsewhere might still be used in this course, we focus here on two ‘complexity-informed’ approaches here.

In the final and longest part of the seminar, we will focus on a couple of case studies. The individual sessions always centre on one particular aspect of megaprojects that the cases studies in question illustrate particularly well.

Learning goals:

- To obtain an overview of the ins and outs of megaprojects
- To summarize the main factors contributing to the complexity, success and failure of such projects
- To understand the complex mechanisms at work in megaprojects
- To enable students to empirically analyse megaprojects independently and to develop general and specific policy recommendations
- To solve problems, rather than reproducing texts in their original form
- To improve your command of the English language by actively participating in classroom discussions and writing an (academic) paper.

Situating the course in the wider educational programme of the Chair

Students wanting to participate in the course should have completed one of the Bachelor seminars taught at our Chair, i.e. either “Why Things Are Complex” or “From Plan to Practice in Public Policy”. These seminars offer helpful and necessary, but different starting points for successful participation in the specialization module (*Vertiefungsseminar*): While students having completed “Why Thing Are Complex” will be familiar with notions such as risk management and Public-Private Partnerships, students who have followed “From Plan to Practice” might approach megaprojects from an implementation perspective, amongst others. Moreover, the teaching method used in the course will already be familiar.

Teaching method and test

The course is built on a teaching method known as ‘Problem-Based Learning’ (PBL). Most importantly, this includes active participation in classroom discussions of the assigned readings – often with a division of labour among the group – focused on so-called ‘Learning Goals’ centred on a broader problem or puzzle. Hence, in order to pass this course, students will be asked to regularly and actively participate in the classroom discussions, and to take over the ‘chairing’ of one of the sessions (25% of the overall grade) rather than individually presenting the readings assigned. Students further have to conduct a small research project of their own and write a respective paper (8,000 words; 75% of the overall grades) (see below for details). There will be ample room for individual feedback during the research process, with two sessions being reserved for student presentations on the state of their research (one before Christmas, the other at the end of the lecture period). Further details on PBL will be provided in the introductory session as well as in the Rules of the Game provided on the Virtual Campus.

Rules of the Game

Find more detailed information about PBL, requirements for presenting and the final paper by following the respective link (on the Virtual Campus).

Course schedule

(1) 16.10.2017: Introduction & Organization

(2) 23.10.2017: Megaprojects – Why bother?

Reading Group A: Flyvbjerg, Bent (2014): What You Should Know About Megaprojects and Why- An Overview, in: Project Management Journal, Vol. 45 (2), pp. 6–19.

Reading Group B: Flyvbjerg, Bent, et al. (2003): Megaprojects and Risk, New York: Cambridge University Press, pp. 1-7.

Fiedler, Jobst; Wendler, Alexander (2016): Berlin Brandenburg Airport, in: Genia Kostka & Jobst Fiedler (Eds.): Large Infrastructure Projects in Germany – Between Ambition and Realities, pp. 93-103.

30.10.2017: No session!

(3) 06.11.2017: Basics of Megaprojects

Reading Group A: Flyvbjerg, Bent, et al. (2003): Megaprojects and Risk, New York: Cambridge University Press, pp. 86-106.

Reading Group B: Smith, Nigel J.; Merna, Tony; Jobling, Paul (2014): Managing Risk in Construction Projects, Chichester, West Sussex: Wiley & Sons, pp. 1-20.

(4) 13.11.2017: Performance Drivers I: Governance and Actor Structures

Reading Group A: Hodge, Roger (2010): Reviewing Public-Private Partnerships - Some Thoughts on Evaluation, in: Graeme A. Hodge et al. (Eds.): International Handbook on Public-Private Partnerships, Cheltenham: Edward Elgar, pp. 81-114.

Reading Group B: Boivard, Tony; Löffler, Elke (2003): Evaluating the quality of public governance: indicators, models and methodologies, in: International Review of Administrative Sciences, Vol. 69, pp. 313-328.

Klijn, Erik-Hans (2014): Public Private Partnerships – Deciphering Meaning, Message and Phenomenon, in: Graeme A. Hodge et al. (Eds.): International Handbook on Public-Private Partnerships, Cheltenham: Edward Elgar, pp. 68-80.

(5) 20.11.2017: Performance Drivers II: Information and Accountability

Reading Group A: Flyvbjerg, Bent, et al. (2003): Megaprojects and Risk, New York: Cambridge University Press, pp. 107-135.

Reading Group B: Cantarelli & Flyvbjerg (2013): Megaprojects Performance and Lock-In, Problems and Solutions, in: Hugo Priemus & Bert van Wee (Eds.): International Handbook on Mega-Projects, Cheltenham: Edward Elgar, pp. 333-355.

(6) 27.11.2017: Performance Drivers III: Coping with Complexity

Reading Group A: Gerrits, Lasse (2012): Punching Clouds – An Introduction to the Complexity of Public Decision Making, Litchfield Park (AZ): Emergent Publications, pp. 14-28.

Ellen, Gerald Jan; Gerrits, Lasse; Slob, Adriaan F.L. (2007): Risk Perception and Risk Communication, in: Susanne Heise (Ed.): Sustainable Management of Sediment Resources: Sediment Risk Management and Communication, Amsterdam: Elsevier, pp. 233-247.

Reading Group B: Gerrits, Lasse (2012): *Punching Clouds – An Introduction to the Complexity of Public Decision Making*, Litchfield Park (AZ): Emergent Publications, pp. 102-133.

(7) 04.12.2017: Methods

Reading whole class: Gerrits, Lasse (2012): *Punching Clouds – An Introduction to the Complexity of Public Decision Making*, Litchfield Park (AZ): Emergent Publications, pp. 166-192.

Mehra, Ajay. et al. (2011): *A Network Perspective on Mega-Engineering Projects*, in: S.D. Brunn (Ed.): *Engineering Earth*, Wiesbaden: Springer Science + Business Media, pp. 769-782.

(8) 11.12.2017: Case Studies I: Governance Failures

Reading Group A: Fiedler, Jobst; Schuster, Sascha (2016): *The Elbphilharmonie Hamburg*, in: Genia Kostka & Jobst Fiedler (Eds.): *Large Infrastructure Projects in Germany – Between Ambition and Realities*, pp. 39-86.

Reading Group B: Fiedler, Jobst; Wendler, Alexander (2016): *Berlin Brandenburg Airport*, in: Genia Kostka & Jobst Fiedler (Eds.): *Large Infrastructure Projects in Germany – Between Ambition and Realities*, pp. 87-147.

(9) 18.12.2017: Feedback Session I

Present the state of your research at this point. At the very least: Topic and (working) research question!

23.12.-07.01.2018: Christmas break!

(10) 08.01.2018: Case Studies II: Decision Making vs Implementation

Reading Group A: Brettschneider, Frank (2015): *Richtig kommunizieren - Stuttgart 21 und die Lehren für die Kommunikation bei Infrastruktur- und Bauprojekten*, in: G. Bentele et al. (Eds.): *Akzeptanz in der Medien- und Protestgesellschaft*, Wiesbaden: Springer Verlag, pp. 281-299.

Reading Group B: Salet, Willem; Bertolini, Luca; Giezen, Mendel (2013): *Complexity and Uncertainty - Problem or Asset in Decision Making of Mega Infrastructure Projects*, in *International Journal of Urban and Regional Research*, Vol. 37 (6), pp. 1984-2000.

(11) 15.01.2018: Case Studies III (Non-Construction MPs): The F-35 Joint Strike Fighter Project

Reading Group A: Scott-Smith, Giles; Smeets, Max (2012). *Nobless oblige. The transatlantic security dynamic and Dutch involvement in the Joint Strike Fighter program*. *International Journal* 68 (1), pp. 49-69.

Haffa, Robert; Datla, Anand (2016). *Viewpoint: Learning from Acquisition History*. *Aerospace America*, January 2016, pp. 3-33.
http://archive.aerospaceamerica.org/Documents/Aerospace_America_PDFs_2016/January2016/AAJan2016.pdf

Reading Group B: Zaffran, Rapahel; Erwes, Nicolas (2015). *Beyond the Point of No Return? Allied Defence Procurement, the ‘China Threat’, and the case of the F-35 Joint Strike Fighter*. *Asian Journal of Public Affairs* 8 (1), pp. 64-88.

(12) 22.01.2018: Case Studies IV: Managing Unplanned Events

Reading Group A: Verweij Stefan, Gerrits, Lasse (2015): How Satisfaction Is Achieved in the Implementation Phase of Large Transportation Infrastructure Projects: A Qualitative Comparative Analysis Into the A2 Tunnel Project, in: *Public Works Management & Policy*, Vol. 20 (1), pp. 5-28.

Reading Group B: Verweij, Stefan (2015): Achieving satisfaction when implementing PPP transportation infrastructure projects: a qualitative comparative analysis of the A15 highway DBFM project, in: *International Journal of Project Management*, Vol. 33, pp. 189–200.

Sun, Ming; Meng, Xianhai (2009): Taxonomy for change causes and effects in construction projects, in: *International Journal of Project Management*, Vol. 27, pp. 560-572.

(13) 29.01.2018: Case Studies (V): Unintended Effects

Reading Group A: Xu, Xibao; Tan, Yan; Yang, Guishan (2013): Environmental impact assessments of the Three Gorges Project in China: Issues and interventions, in: *Earth-Science Reviews*, Vol. 124, pp. 115-125.

Tullos, Desiree (2009): Assessing the influence of environmental impact assessments on science and policy: An analysis of the Three Gorges Project, in: *Journal of Environmental Management*, Vol. 90 (3), pp. 208-223.

Reading Group B: Chaojun (1993): Comprehensive Assessment of the Ecological and Environmental Impact of the Three Gorges Project, in: Shiuhung Luk & Joseph B. Whitney (Eds.): *Megaproject – A Case Study of China’s Three Gorges Project*, pp. 71-107.

(14) 05.02.2018: Feedback Session II

Present your final drafts