

Syllabus: Module Socio-technical System Transformation *Version 13.03.2025*

Week 1: Innovation types, patterns and processes (16.-20.6.2025)			
Prof. Dr. Carsten Mann, Gino Garcia			
Day	Time	Content	source
Mo, 16.06	09:00 - 09:30	Introduction to the course	CM
	10:00 – 11:00	Introduction to concepts and criteria of innovation systems and patterns of change – part 1 - Innovation types, systems and dynamics	CM
	12.00 – 13.00	Introduction to concepts and criteria of innovation systems and patterns of change – part 2 - Examples innovations and transformation	CM
	14.00 – 16.00	Preparation of short report/transformation project	students
Tue, 17.06	09:00 - 13:00	Examples of Innovation types I: Governance innovation - Carsten Mann, Monica Hernandez and Stefan Sorge	CM, MH, GG
	14.00 – 16.00	Preparation of short report/transformation project	students
Wed, 18.06	09:00 – 10.30	Approaches for Innovation developing & testing I: ANE - Peter Adolphi ANE. A local hub for innovation and catalyst for SD & rural development	PA (online)
	11.00 – 12:30	Approaches for Innovation developing & testing II: CTA - Ewert Aukes, University of Twente	EA (online)
	14.00 – 16.00	Preparation of short report/transformation project	students
Thu, 19.06	09:00 – 10:30	Examples of innovation types II: Social Innovation - René John (ISINOVA)	RJ
	11:00 – 12:30	Example of innovation types IV: Sustainability innovations. BR as experimental sites and innovation hubs - Caroline Dabard (HNEE; BRI)	CD
	14.00 – 16.00	Preparation of short report/transformation project	students
Fri, 20.06	09.00 – 11.00	Example of an int. approach for innovation transfer - The United Nations Public Service Innovation Approach - Carsten Mann (HNEE)	CM
	11.00 – 13.00	Example of Innovation types II I: Technological/Products - Nadine Herold (HNEE; FB3)	NH
	14.00 – 16.00	For FST: Presentation of status-quo for 3rd semester project, clarification of q&a, next steps to take	CM, ZZ students

Link to the FST virtual seminar room for online interactions:

<https://us02web.zoom.us/j/83107740053?pwd=c3c3MENYbkIvM2tpQUZncGtIOUNtUT09>

Week 2: Transformation Governance (23.6. – 27.06.2025)

Prof. Dr. Heike Walk, Prof. Dr. Benjamin Nölting, Liza Sander

Day	Time	Content	source
Mo, 23.06	09:00 - 09:30	Introduction to Sustainability Transformation - Welcome, course structure/ syllabus, objectives	HW
	10:00 – 11:00	Transformation theories and concepts - What do we mean by transformation and sustainability transformation? - WBGU “Great Transformation”	HW
	11.30 – 13.00	Introduction to transformation thinking - Three approaches: institutional, technological-innovation, idealist - Discussion of the text of Schneidewind/Augenstein	HW
	14.00 – 16.00	Individual preparatory tasks & texts for next day	students
Tue, 24.06	09:00 - 10:30	Understanding the multi-level perspective - Theoretical model of MLP - Criticisms of the MLP	HW
	10:45 – 11:30	Multi-level Governance - The influence of formal and informal institutions - The role of state and non-state actors	HW
	11.45 – 13:00	Applying MLP and Multi-level Governance to forestry and nature conservation	
	14.00 – 16.00	Individual preparatory tasks & texts for next day	students
Wed, 25.06	09:00 – 10.30	Understanding the Iceberg model - Uncovering Root Causes for Sustainable Problem-Solving - Analyzing complex problems by looking beyond surface-level issues	HW
	11.00 – 12:30	Donella Meadows – Thinking in Systems - Uncovering Root Causes for Sustainable Problem-Solving	HW
	14.00 – 16.00	Preparation of short report/transformation project	students
Thu, 26.06	09:00 – 10:30	Citizen conferences... - -	Robert Boden
	11.00 – 13.00	Citizen panels - using leverage points for own transition projects - Designing more effective interventions	students
Fri, 27.06	09.00 – 11.00	Application of different models to forestry and nature conservation - Applying different models to a field of own studies or interest - Learning to know strengths and weaknesses of the different models	HW
	11.30 – 13.00	Presentation and discussion of the examples	students
	14.00 – 16.00	Preparation of short report/transformation project	

Week 3: Urbanization, demography and biosphere reserves (30.06.-04.07.2025)

Prof. Dr. Erik Aschenbrand

Day	Time	Content	source
Mo, 30.06	09:30 - 10:00	Introduction: A geographical perspective on transformation - Demography, Urbanization, Biodiversity	EA
	10:00 – 11:00	Unintended and unplanned transformations - Demography - Urbanization	EA
	11.30 – 13.00	Introduction to the field trip - Urbanization and (waste-) water - Historical urbanization and land use changes in the peri-urban spaces of Berlin - Urban Waterbodies: Nature conservation value and restoration options	EA
	14.00 – 16.00	Preparation of short report/transformation project	students
Tue, 01.07	08:00 - 18:00	Full day bicycle field trip: Urbanization and Water - Start: S-Berlin Buch, End: Lake Tegel - Urbanization and (waste-) water - Historical urbanization and land use changes in the peri-urban spaces of Berlin Urban Waterbodies: Nature conservation value and restoration options	EA
Wed, 02.07	09:30 – 11.30	Rural-urban migration - Global vs. local perspective - Chance for Biodiversity conservation or threat to sustainable regional development	EA
	14.00 – 16.00	Preparation of reports	students
Thu, 03.07	09:30 – 11:30	Rural-urban interlinkages - Extended urbanization - Energy supply, Ecosystem services - Conflicts	EA
	14.00 – 16.00	Preparation of short report/transformation project	students
Fri, 04.07	09.30 – 11.00	Trying to get to the steering wheel: Governing transformations with Biosphere Reserves and other designated areas: creating development perspectives for rural areas - Differences between designated area categories - Discussing the transformative potential of different types of designated area categories	EA
	11.30 – 12:00	Clarification of Q&A regarding the exam	
	14.00 – 16.00	Preparation of short report/transformation project	students

Literature for Transformation Governance

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- Geels, Frank W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. In: *Environmental Innovation and Societal Transitions* 1 (2011), p. 24-40.
- Grin, John; Rotmans, Jan; Schot, Johan (2010). *Transitions to Sustainable Development. New Direction in the Study of Long Term Transformative Change*. New York, London: Routledge.
- Köhler, Jonathan; Geels, Frank W.; Kern, Florian; Markard, Jochen; Wieczorek, Anna; Alkemade, Floortje; Avelino, Flor et al. (2019). An agenda for sustainability transitions research: State of the art and future directions. In: *Environmental Innovation and Societal Transitions*. Volume 31, June 2019, pp. 1-32. [13Thttps://doi.org/10.1016/j.eist.2019.01.004](https://doi.org/10.1016/j.eist.2019.01.004)13T
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- Leventon, Julia; Abson, Dave J.; Lang, Daniel J. (2021). Leverage points for sustainability transformations: Nine guiding questions for sustainability science and practice. *Sustainability Science*, 16(3), 721–726.
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- Voß, Jan Peter; Newig, Jens; Kastens, Britta; Monstadt, Jochen; Nölting, Benjamin (2007): Steering For Sustainable Development: A Typology Of Problems And Strategies With Respect To Ambivalence, Uncertainty And Distributed Power. [13TJournal Of Environmental Policy & Planning](https://doi.org/10.1016/j.jep.2007.05.001)13T, 2007 (Volume 13T913T, Issue 3 & 4), S. 193–212.
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