

BED – 8005 Innovation and Sustainability Transition ([course page](#))

Location: School of Business and Economics , Auditorium 01.202, Breivangvegen 23, 9010 Tromsø ([Map](#))



UiT / THE ARCTIC UNIVERSITY
OF NORWAY

Administrative coordinator: [Prof. Lene Foss](#), lene.foss@uit.no, Tel:+4748000291

Course faculty:

[Prof. Lars Coenen](#) (LC), Melbourne Sustainable Society Institute, University of Melbourne

[Prof. Anna Bergek](#) (AB), Department of Technology Management and Economics, Chalmers University of Technology, Sweden

[Dr. Teis Hansen](#) (TH), Department of Human Geography & CIRCLE Lund University, Sweden

[Prof. Bernhard Truffer](#) (BT), Department of Environmental Social Sciences, EAWAG, Switzerland & Copernicus Institute of Sustainable Development, Utrecht University, the Netherlands

[Dr. Allan Dahl Andersen](#) (AA), TIK Centre for Technology, Innovation and Culture, University of Oslo, Norway

Prof. Lene Foss (LF) School of Business and Economics, UiT The Arctic University of Norway

Schedule

Monday 25 June	11.00-11.45 Welcome and presentation of faculty and participants (LF and LC) 11.45-13.00 Introduction to Innovation and Sustainability Transitions (LC) <i>13.00-14.00 Lunch</i> 14.00-15.00 Introduction cont. (LC) <i>15.00-15.15 Coffee</i> 15.15-18.15 Technological Innovation Systems: analytical framework, critical choices and key challenges (AB)
Tuesday 26 June	9.00-12.00 Sustainability Transitions and Incumbents – Opening the Black box of the Firm (TH) <i>12.00-13.00 Lunch</i> 13.00-16.00 Globalization and Sustainability Transitions (BT)
Wednesday 27 June	9.00-12.00 Urban and Regional Sustainability Transitions (LC) <i>12.00-13.00 Lunch</i> 13.00-17.00 Preparation time for students
Thursday 28 June	9.00-12.00 Industrial aspects of sustainability transitions: empirical illustrations from the Nordic Countries (AA) <i>12.00-13.00 Lunch</i> 13.00-17.00 Student presentations (LF)
Friday 29 June	9.00-12.00 Student presentations (LF) <i>12.00-13.00 Lunch</i> 13.00-14.00 Question hour (LC, TH, LF) <i>Farewell and departure</i>

Lars Coenen: Introduction to Innovation and Sustainability Transitions

- Smith, A., Voß, J. P., & Grin, J. (2010). Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. *Research policy*, 39(4), 435-448.
- Coenen, L., & López, F. J. D. (2010). Comparing systems approaches to innovation and technological change for sustainable and competitive economies: an explorative study into conceptual commonalities, differences and complementarities. *Journal of Cleaner Production*, 18(12), 1149-1160.
- Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, 41(6), 955-967.

Anna Bergek: Technological Innovation Systems: analytical framework, critical choices and key challenges (AB)

- Bergek, A. (2018). Technological innovation systems: a review of recent findings and suggestions for future research. Forthcoming in: Boons, F. & McMeekin, A. (Eds): *Handbook of Sustainable Innovation* (Edward Elgar) (oformaterad version bifogas).
- Bergek, A., Jacobsson, S., Carlsson, B., Lindmark, S., & Rickne, A. (2008). Analyzing the functional dynamics of technological innovation systems: A scheme of analysis. *Research Policy*, 37(3), 407-429.
- Markard, J., Hekkert, M., & Jacobsson, S. (2016). The technological innovation systems framework: Response to six criticism. *Environmental Innovation and Societal Transitions*, 16, 76-86.
- Weber, K.M. & Rohracher, H. (2012). Legitimizing research, technology and innovation policies for transformative change: Combining insights from innovation systems and multi-level perspective in a comprehensive 'failures' framework. *Research Policy*, 41(6), 1037-1047.

Teis Hansen: Sustainability Transitions and Incumbents – Opening the Black box of the Firm

- van Mossel, A., van Rijnsoever, F.J. and Hekkert, M.P. (2018) Navigators through the storm: A review of organization theories and the behavior of incumbent firms during transitions. *Environmental Innovation and Societal Transitions*, 26: 44-63.
- Dewald, U. and Achternbosch, M. (2015) Why did more sustainable cements failed so far? Disruptive innovations and their barriers in a basic industry. *Environmental Innovation and Societal Transitions*. doi:10.1016/j.eist.2015.10.001
- Hansen, T. and Coenen, L. (2017) Unpacking resource mobilisation by incumbents for biorefineries: The role of micro-level factors for technological innovation system weaknesses. *Technology Analysis & Strategic Management*, 29: 500-513.

Bernhard Truffer: Globalization and Sustainability Transitions

- Binz, C., Truffer, B., & Coenen, L. (2015). Path Creation as a Process of Resource Alignment and Anchoring: Industry Formation for On-Site Water Recycling in Beijing. *Economic Geography*, 1-29.
- Quitzow, R. (2015). Dynamics of a policy-driven market: The co-evolution of technological innovation systems for solar photovoltaics in China and Germany. *Environmental Innovation and Societal Transitions*, 17, 126-148.
- Binz, C., Truffer, B. (2017). Global Innovation Systems – towards a conceptual framework for systemic innovation conditions in transnational contexts. *Research Policy* 46, 1284 – 1298.
- Boschma, R., Coenen, L., Frenken, K., Truffer, B. (2017). Towards a theory of regional diversification. *Regional Studies* 51 (1) , 31–45.

Lars Coenen: Urban and Regional Sustainability Transitions

- Coenen, L., Benneworth, P., & Truffer, B. (2012). Toward a spatial perspective on sustainability transitions. *Research policy*, 41(6), 968-979.
- Coenen, L., Moodysson, J., & Martin, H. (2015). Path renewal in old industrial regions: Possibilities and limitations for regional innovation policy. *Regional Studies*, 49(5), 850-865.
- Wolfram, M., & Frantzeskaki, N. (2016). Cities and systemic change for sustainability: prevailing epistemologies and an emerging research agenda. *Sustainability*, 8(2), 144.
- Bulkeley, H., Castán Broto, V., Maassen, A. (2014). Low-carbon transitions and the reconfiguration of urban infrastructure. *Urban Studies* 51, no. 7 (2014): 1471-1486.

Allan Dahl Andersen: Industrial aspects of sustainability transitions: empirical illustrations from the Nordic Countries

- Mäkitie, T., et al. (2018). "Established sectors expediting clean technology industries? The Norwegian oil and gas sector's influence on offshore wind power." *Journal of Cleaner Production* 177: 813-823.
- Steen, M. and T. Weaver (2017). "Incumbents' diversification and cross-sectorial energy industry dynamics." *Research Policy* 46(6): 1071-1086.
- Stephan, A., et al. (2017). "The sectoral configuration of technological innovation systems: Patterns of knowledge development and diffusion in the lithium-ion battery technology in Japan." *Research Policy* 46(4): 709-723.