

SGO 3200 – Innovation in Sustainability Transitions and Transformations

MERK – NYTT NAVN PÅ KURSET!

Vår 2020 - pensum

Syllabus/achievement requirements

* = the article is in a compendium

@ = the article is available online

How to find an article on the reading list

All course curriculum is available at the bookstore Akademika. The compendium will be available at Kopiutsalget in the basement of Akademika. Please bring your student card.

Online articles

@ = articles are available online through Bibsys' subscriptions to e-journal databases for employees and students. To access the articles it is necessary to use a computer in the UiO network. This is because the UiO subscription access is controlled by IP-address. To download the articles from computers outside the UiO network it is necessary to connect to the UiO network by VPN client.

Module 1: The Sustainability Challenge

*Altenburg, T. and A. Pegels. (2012): Sustainability-oriented innovation systems – managing the green transformation. *Innovation and Development* 2(1): 5-22.

@Anderson, K. 2015. Duality in climate science. *Nature Geoscience*, published online 12 Oct. (4 pages)

@Asafu-Adjaye, J. (2015): An Ecomodernist Manifesto.

@Colglazier, W. (2015): Sustainable Development Agenda: 2030. *Science* 349(6252) 1048-1050.

@Mol, A.P.J. and Spaargaren, G. (2000): Ecological modernisation theory in debate: A review. *Environmental Politics* 9(1): 17-49. (23 pages)

@Olsson, P, Moore, M.J, Westley, F.R. and McCarthy, D.D.P. (2017). The concept of the Anthropocene as a game changer: a new context for social innovation and transformation to sustainability. *Ecology and Society*, 22(2):31.

@Rockstrom et al. (2009): A Safe Operating Space for Humanity. *Nature* 461, 472-475.

@Szerszynski, B. (2015). *Getting Hitched and Unhitched with the Ecomodernists. Environmental Humanities, vol. 7, 2015, pp. 239-244.*

@Warner, R. 2010. Ecological modernisation theory: towards a critical ecopolitics of change? *Environmental Politics* 19(4): 538-556

Module 2: Innovation – the basics

*Asheim, B.T. (2005): The Geography of Innovation: Regional Innovation Systems. In Fagerberg, J., Mowery, D.C. and Nelson, R.R. (2005). *The Oxford Handbook of Innovation*. Oxford, Oxford University Press. (26 pages).

@Fagerberg, J. (2018). Mission (im)possible? The role of innovation (and innovation policy) in supporting structural change & sustainability transitions. TIK Working papers on Innovation Studies, no. 20180216 <http://ideas.repec.org/s/tik/inowpp.html> (34 pages)

*Fagerberg, J. (2005): Innovation: A Guide to the Literature. In Fagerberg, J., Mowery, D.C. and Nelson, R.R. (2005). *The Oxford Handbook of Innovation*. Oxford, Oxford University Press. (28 pages).

@Geels, F.W and Schot, J. (2007): Typology of sociotechnical transition pathways. *Research Policy*, 36, 399-417.

@Gibbs, D. and O'Neill, K. (2017). Future green economies and regional development: a research agenda. *Regional Studies*. 51, 1, 161-173.

*Lundvall, B. Å. and Johnsen, B. (1994): *The Learning Economy*. *Journal of Industry Studies*, Vol 1, pp 23-42 (19 pages). SKAL UT!

*Jessop, B., Moulaert, F., Hulgård, F. and Hamdouch, A. (2013) Socail innovation research: a new stage in innovation analysis?. In Moulaert, F., MacCallum, D., Mehmood, A. and Hamdouch, A. (eds.): *The International Handbook of Social Innovation*. Edward Elgar, Cheltenham. Pp. 110-130.

Module 3 – Green innovations and transitions in practice

@Bain, C. and Selfa, T. (2013): Framing and reframing the environmental risks and economic benefits of ethanol production in Iowa. *Agriculture and Human Values*, 30, 351-364. (13 pages).

@Baker, L. (2018). *Of embodied emissions and inequality: Rethinking Energy consumption*. *Energy Research and Social Science*, 36, 52-60.

@Bergquist, A-K. and Söderholm, K. (2015): Transition to greener pulp: regulation, industry responses and path dependency. *Business History*, 57:6, 862-884.

@Berkout, F., Verbong, G., Wieczorek, A. J., Raven, R., Lebel, L. and Bai, X. (2010): Sustainability experiments in Asia: innovations shaping alternative development pathways? *Environmental Science and Policy*, 13, 261-271. (10 pages).

@Boyd, E., Boykoff, M. and Newell, P. (2011): The “New” Carbon Economy: What’s New? *Antipode*, 43, 601-611.

@Bridge, G., Bouzarovski, S., Bradshaw, M., & Eyre, N. 2013. Geographies of energy transition: Space, place and the low carbon economy. *Energy Policy*, 53: 331-340.

@Coenen, L., Moodysson, J., Martin, H. (2015): Path renewal in old industrial regions: possibilities and limitations for regional innovation policy. *Regional Studies* Vol. 49, Issue 5, 850-865

@Forsman, H. (2013): Environmental Innovations as Sources of Competitive Advantage or Vice Versa? *Business Strategy and the Environment*, 22, 306-320. (14 pages).

@Gardner, T.A. et. Al. (2019). Transparency and sustainability in global commodity supply chains. *World Development*, 121, 163-177.

@Geels, F., Sovacool, B.K., Schwanen, T. and Sorrell, S. (2017). Sociotechnical transitions for deep decarbonization. Accelerating innovation is as important as climate policy. *Science*, 357, 1242-1244.

@Geels, F.W., Kern, F., Fuchs, G., Hinderer, N., Kungl, G., Mylan, J., Neukirch, M., Wassermann, S. (2016) The enactment of socio-technical transition pathways: A reformulated typology and a comparative multi-level analysis of the German and UK low-carbon electricity transitions (1990-2014), *Research Policy*, 45(4), 896-913.

@Geels, F.W. (2014). Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture & Society*, 31, 5, 21-40.

@Goldstein, A, Turner, W.R., Gladstone, J. and Hole. D.G (2019). The private sector's climate change risk and adaptation blind spots. *Nature Climate Change*, 9, 18-25

@Haarstad, H. and Rusten, G. (2016). The challenges of greening energy: policy/industry dissonance at the Mongstad refinery, Norway. *Environment and Planning C: Government and Policy*, 34, 340-355.

@Hargreaves, T., Hielscher, S., Seyfang, G. & Smith, A. 2013. Grassroots innovations in community energy: The role of intermediaries in niche development. *Global Environmental Change*, 23 (5): 868-880.

@Karnøe, P. and Garud, R. (2012). Path Creation: Co-creation of Heterogenous Resources in the Emergence of the Danish Wind Turbine Cluster. *European Planning Studies*, 20:5, 733-752.

@Martin, C.J., Upham, P. and Budd, L. (2015). Commercial orientation in grassroots social innovation: Insights from the sharing economy. *Ecological Economics*, 118, 240-251.

@Niva, M., Mäkelä, J., Kahma, N. and Kjærnes, U. (2014). Eating Sustainable? Practices and Background Factors of Ecological Food Consumption in Four Nordic Countries. *Journal of Consumer Policy*, 37, 465-484.

@Noe, E, Alrøe, H.F, Thorsøe, M.H., Olesen, J.E., Sørensen, P, Melander, B. and Fog, E. (2015). Knowledge Asymmetries Between Research and Practice: A social Systems approach to Implementation Barriers in Organic Arable Farming. *Sociologica Ruralis*, 55, 460-482.

@O'Neill, K.J. and Gibbs, D. (2014): Towards a sustainable economy? Socio-technical transitions in the green building sector. *Local Environment*, 19, 6, 572-590. Skal UT!

@Rohracher, H. and Späth, P. (2013): The Interplay of Urban Energy Policy and Socio-technical Transitions: The Eco-cities of Graz and Freiburg in Retrospect. *Urban Studies*, 51.

@Shove, E. (2010). Beyond the ABC: climate change policy and theories of social change. *Environment and Planning A*, 42, 1273-1285.

@Smith, A. (2007): Translating Sustainability's between Green Niches and Socio-Technical Regimes. *Technology Analysis & Strategic Management*, 19, 4, 427-450. (23 pages).

@Smith, A., Kern, F., Raven, R., & Verhees, B. 2014. Spaces for sustainable innovation: Solar photovoltaic electricity in the UK. *Technological Forecasting and Social Change*, 81: 115-130.

@Späth, P. and Rohracher, H. (2010): "Energy regions": The transformative power of regional discourses on socio-technical futures. *Research Policy*, 39, 449-458.

@Specht, K., Siebert, R., Hartmann, I., Freisinger, U.B., Sawicka, M., Werner, A., Thomaier, S., Henckel, D., Walk, H. and Dierich, A. (2013): Urban agriculture of the future: an overview of sustainability aspects of food production in and on buildings. *Agriculture and Human Values* 30, 351-361. (19 pages).

@Ulsrud, K., Winther, T., Palit, D., Rohracher, H. and Sandgren, J. (2011): The Solar Transitions research on solar mini-grids in India: Learning from local cases of innovative socio-technical systems. *Energy for Sustainable Development*, 15, 293-303. (10 pages)

@Weber, K. and 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, 1037-1047.

Module 4 – Social innovation and transformations to sustainability

@Avelino, F. (2017). Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability. *Environmental Policy and Governance*, 27, 505-520.

*Bornstein, D. *How to Change the World: Social Entrepreneurs and the Power of new Ideas*. Oxford.

@Leach, M., J. Rockström, P. Raskin, I. Scoones, A. C. Stirling, A. Smith, J. Thompson, E. Millstone, A. Ely, E. Arond, C. Folke, and P. Olsson. (2012): Transforming innovation for sustainability. *Ecology and Society* 17(2): 11.

@Leismann, K. et al. (2013): Collaborative consumption: Towards a resource-saving consumption culture. *Resources* 2: 184-203.

*Moulaert, F., MacCallum, D. and Hillier, J. (2013). Social innovation: intuition, precept, concept theory and practice. In Moulaert, F., MacCallum, D., Mehmood, A. and Hamdouch, A. (eds.): *The International Handbook of Social Innovation*. Edward Elgar, Cheltenham. Pp. 13-24

@Moore, M.L. and Riddell, D.J. (2015). *Scaling out, Scaling up, Scaling deep: Advancing systemic social innovation and the learning processes to support it*. Technical report.
https://www.researchgate.net/profile/Darcy_Riddell/publication/280394872_Scaling_out_Scaling_up_Scaling_deep_Advancing_systemic_social_innovation_and_the_learning_processes_to_support_it/links/56711cc808ae0d8b0cc2d8e1.pdf

@Murray, R., Caulier-Grice, J. and Mulgan, G. (2010). *The open book of social innovation*. The Young Foundation. Pages 1-49.

@Sahakian, M. (2013): Complementary currencies: What opportunities for sustainable consumption in times of crisis and beyond? *Sustainability: Science, Practice and Policy* 10(1): 4-13.

@van der Haave, R.P. and Rubalcaba, L. (2016): Social innovation research: An emerging area of innovation studies? *Research Policy*, 45, 1923-1935.

@Weinstein, MP et al. (2013): The global sustainability transition: it is more than changing light bulbs. *Sustainability: Science, Practice and Policy* 9(1): 4-15.

Recommended Readings:

Hawken, P. 1993. *The Ecology of Commerce: A Declaration of Sustainability*. NY, Harper Business.