

Seminar
University of Bremen
Spring 2026

Governing Innovation

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Office hours by appointment via email

Meets Fridays, 08:00–10:00, UNICOM 3.3380 (SOCIUM – Mary-Somerville-Str. 3).

Course Description

The class examines innovation as a core governance problem for modern states. After exploring foundational debates on the nature of innovation and the ways in which states have come to problematize it, the class moves into cutting-edge debates on the shape, workings, and discontents of contemporary innovation states with a major focus on Europe and the United States. Themes the course develops in more detail are cross-national institutional differences in the governance of innovation, links between national security, the military, and innovation policy, the interaction between policies meant to stimulate innovation and policies meant to regulate and contain it, and policies structuring the financing of innovation. The last third of the class explores core aspects of the current European innovation state. Thematically, this block centers on problems of organizing innovation policy in a characteristically weak supranational state structure, climate change and green innovation, semiconductor policy, regional innovation clusters, and the compensation of losers and losing regions in knowledge economies.

Core learning goals

Besides introducing students to cutting-edge debates of the field, the class deploys the problem of innovation governance to develop a range of foundational ideas in comparative, historical, and international public policy analysis and political economy. Key debates touched upon concern problems of business power, the evolution of democratic capitalism, European integration, economic expertise, institutional constraints on policy-making, problems of state capacity and bureaucratic competences, multilevel politics and policy implementation, policy instrument design, and varieties of growth regimes. As a research-led course featuring multi-disciplinary high-level publications, the class furthermore helps to familiarize students with techniques to craft and situate scholarly arguments, ranging from data-driven, historical,

and comparative designs through to policy-oriented arguments connecting to current public policy debates.

Participation in the seminar

Discussion of the readings will make up the core of the seminar sessions. Students are expected to read all assigned texts and to participate regularly and actively. To get credit (6 CP), students must (1) do all assigned readings; (2) prepare three reading reports (4,000 characters); (3) and submit final papers (12,000 characters).

The reading reports are intended to prepare the ground for discussions by asking participants to set out their responses to the readings in written form. Memos should not just summarize the readings, but rather take up specific arguments, compare the positions of different authors, raise questions of evidence, usefulness, or plausibility or draw attention to particular strengths and weaknesses in the arguments and descriptions. We will share these memos through email. In order for everyone to have time to read over the comments of others, these will be due by 4 pm on the day before the class meets. For the final paper, original research on literature, data, or archival material is required. Term papers have to be written in English. All texts are made available on the Stud.IP website of the course.

For organizational matters please contact Timur Ergen (iawlehre@uni-bremen.de).

Overview

Part 1: Fundamentals – Innovation and the state

What is innovation and where does it come from?

Technological innovation and the modern state

Part 2: Untangling the innovation state: Arenas and domains

National innovation systems

Innovation and the military

The regulatory politics of innovation

Financing Innovation

Innovation and intellectual property

Part 3: The 21st century European innovation state

European innovation policy

Green energy innovation policy

Regional innovation clusters

Innovation policy and the compensation of losers

Readings

Part 1: Fundamentals – Innovation and the state

April 10, 2026

What is innovation and where does it come from?

Required reading

Fagerberg, J. 2006. "Innovation: A Guide to the Literature." In *The Oxford Handbook of Innovation*, edited by J. Fagerberg and D. C. Mowery, 1–26. Oxford University Press.

Further readings

Atkinson, R., and M. Lind. 2018. "The Myth of the Genius in the Garage: Big Innovation." In *Big Is Beautiful*, 95–115. MIT Press.

Engerman, S.L. & N. Rosenberg. 2024. Innovation in Historical Perspective. In *Handbook of Cliometrics*, edited by C. Diebolt & M. Hauptert. Springer: 2211–2223.

Godin, B. 2017. A conceptual history of innovation: In *The Elgar Companion to Innovation and Knowledge Creation*, edited by Harald Bathelt et al. Edward Elgar: 25–32.

Mowery, D. C., and N. Rosenberg. 1998. "The Institutionalization of Innovation, 1900–90." In *Paths of Innovation: Technological Change in 20th-Century America*, 11–46. Cambridge University Press.

Lester, R., and M. Piore. 2004. *Innovation: The Missing Dimension*, 35–73. Harvard University Press.

April 17, 2026 – no class

April 24, 2026

Technological innovation and the modern state

Required reading

Lundvall, B-Å., and S. Borrás. 2006. "Science, Technology, and Innovation Policy." In *The Oxford Handbook of Innovation*, edited by J. Fagerberg and D. C. Mowery. Oxford University Press.

Further readings

Acemoglu, D. & J. Robinson. 2006. "Economic Backwardness in Political Perspective." *American Political Science Review* 100 (1): 115–131.

Berman, E. P. 2012. *Creating the Market University: How Academic Science Became an Economic Engine*. Princeton University Press. Chapters 3 & 7.

Bloom, N., J. Van Reenen & H. Williams 2019. A toolkit of policies to promote innovation. *Journal of Economic Perspectives* 33: 163–184.

Fagerberg, J. 2017. "Innovation Policy: Rationales, Lessons and Challenges." *Journal of Economic Surveys* 31(2): 497–512.

Gerschenkron, A. 1962. *Economic Backwardness in Historical Perspective*. A Book of Essays.

Harvard University Press, Chapters 1, 2, 3 & 'The Approach to European Industrialization: A Postscript'.

May 01, 2026 – no class

Part 2: Untangling the innovation state: Arenas and domains

May 8, 2026

National innovation systems

Required reading

Nelson, R. R. 2013. "National innovation systems". In *Regional innovation, knowledge and global change*, edited by Z. Acs. Routledge: 11–26.

Further readings

Mowery, D. C., and B. N. Sampat. 2006. "Universities in National Innovation Systems." In *The Oxford Handbook of Innovation*, edited by J. Fagerberg and D. C. Mowery. Oxford University Press.

Mustar, P & P. Larédo. 2002. Innovation and research policy in France (1980–2000) or the disappearance of the Colbertist state. *Research Policy* 31(1): 55–72.

Soskice, D. 1997. "German Technology Policy, Innovation, and National Institutional Frameworks." *Industry and Innovation*, 4(1), 75–96.

Trumbull, G. 2004. *Silicon and the State: French Innovation Policy in the Internet Age*. Brookings Institution Press, Chapters 1,2 & 6.

Ziegler, J. N. 1995. "Institutions, Elites, and Technological Change in France and Germany." *World Politics* 47(3): 341–72.

May 8, 2026 (additional virtual session – 14:00–15:30)

Innovation and the military

Required reading

Hooks, G. 1990. "The Rise of the Pentagon and U.S. State Building: The Defense Program as Industrial Policy." *American Journal of Sociology* 96(2): 358–404.

Further readings

Bonvillian, W. B. 2018. "DARPA and its ARPA-E and IARPA clones: A unique innovation organization model". *Industrial and Corporate Change* 27 (5): 897–914.

Block, F. 2008. "Swimming Against the Current: The Rise of a Hidden Developmental State in the United States." *Politics & Society* 36(2): 169–206.

Mowery, D. C. 2009. "National Security and National Innovation Systems." *Journal of Technology Transfer* 34: 455–473.

Weiss, L. 2014. *America Inc.?: Innovation and Enterprise in the National Security State*. Cornell University Press, Chapters 1,2 & 4.

May 15, 2026

The regulatory politics of innovation

Required reading

Evans, P. 1995. "Promotion and Policing." In *Embedded Autonomy: States and Industrial Transformation*, 99–127. Princeton University Press.

Further readings

Collier, R., V. B. Dubal, and C. Carter. 2018. "Disrupting Regulation, Regulating Disruption: The Politics of Uber in the United States." *Perspectives on Politics* 16(4): 919–937.

Gifford, D. J. & R. T. Kudrle. 2011. "Antitrust Approaches to Dynamically Competitive Industries in the United States and the European Union". *Journal of Competition Law & Economics*, 7 (3): 695–731.

Jasanoff, S. & S.H. Kim. 2009. "Containing the Atom: Sociotechnical Imaginaries and Nuclear Power in the United States and South Korea". *Minerva* 47: 119–146.

Loeppky, R. 2005. History, technology, and the capitalist state: the comparative political economy of biotechnology and genomics. *Review of International Political Economy* 12 (2): 264–286.

Mügge, D. 2024. "EU AI sovereignty: for whom, to what end, and to whose benefit?" *Journal of European Public Policy* 31(8), 2200–2225.

May 22, 2026 – no class

May 29, 2026

Financing Innovation

Required reading

Auerswald, P., and L. Branscomb. 2003. "Valleys of Death and Darwinian Seas: Financing the Invention to Innovation Transition in the United States." *Journal of Technology Transfer* 28 (3–4): 227–239.

Further reading

Cooiman, F. 2024. Imprinting the economy: The structural power of venture capital. *Environment and Planning A*, 56 (2), 586–602.

Griffith-Jones, S. & N. Naqvi. 2021. "Leveraging Policy Steer? Industrial Policy, Risk-Sharing, and the European Investment Bank". In *The Reinvention of Development Banking in the European Union: Industrial Policy in the Single Market and the Emergence of a Field*, edited by D. Mertens, M. Thiemann & P. Volberding. Oxford University Press: 90–114.

Mazzucato, M, & Semieniuk, G. 2018. "Financing renewable energy: Who is financing what and why it matters". *Technological Forecasting and Social Change* 127: 8–22.

Thurbon, E. 2016. *Developmental mindset: The revival of financial activism in South Korea*. Cornell University Press, Chapters 6, 7, 8 & 9.

Zysman, J. 1983. "Finance and the Politics of Industry." In *Governments, Markets and Growth*. Cornell University Press: 55–95.

June 5, 2026

Innovation and intellectual property

Required readings

Schwartz, H. 2021. "Mo' Patents, Mo' Problems: Corporate Strategy, Structure, and Profitability in America's Political Economy." In *The American Political Economy: Politics, Markets, and Power*, edited by J. S. Hacker, A. Hertel-Fernandez, P. Pierson, and K. Thelen. Cambridge University Press: 247–269.

Further reading

- Breznitz, D. 2021. "Our Anti-Intellectual Property Rights System." In *Innovation in Real Places: Strategies for Prosperity in an Unforgiving World*. Oxford University Press.
- Jessop, B. 2005. "Cultural political economy, the knowledge-based economy, and the state". In *The Technological Economy*, edited by D. Slater & A. Barry. Routledge: 144–166.
- Muzaka, V. 2012. "Intellectual property protection and European 'competitiveness'". *Review of International Political Economy* 20 (4): 819–847.
- Scherer, F. 2009. "The Political Economy of Patent Policy Reform in the United States". *Journal on Telecommunications & High Technology Law* 7: 167–216.
- Shadlen, K. C., A. Schrank, M. J. Kurtz, 2005. "The Political Economy of Intellectual Property Protection: The Case of Software". *International Studies Quarterly* 49(1): 45–71.

Part 3: The 21st century European innovation state

June 12, 2026

European innovation policy

Required reading

Mazzucato, M., and C. Perez. 2015. "Innovation as Growth Policy: The Challenge for Europe." In *The Triple Challenge for Europe*, edited by J. Fagerberg et al., 229–264. Oxford University Press.

Further readings

- Grande, E. 2001. "The Erosion of State Capacity and the European Innovation Policy Dilemma: A Comparison of German and EU Information Technology Policies." *Research Policy* 30(6): 905-921.
- Mocanu, D., and M. Thiemann. 2024. "Breeding 'Unicorns': Tracing the Rise of the European Investor State in the European Venture Capital Market." *Competition & Change* 28(3–4): 433–453.
- Ó Riain, S. 2000. "The Flexible Developmental State: Globalization, Information Technology, and the 'Celtic Tiger.'" *Politics and Society* 28(2): 157–193.
- Ruck, J. 2024. "A Goeconomic Fix? European Industrial Policy on Semiconductors Amidst Global Competition." *Journal of Common Market Studies* 64: 742–761.

June 19, 2026

Green energy innovation policy

Required reading

Gabor, D. 2023. "The (European) Derisking State." *Stato e mercato* 2023-1: 53–84.

Further readings

Cigna, L., D. Di Carlo, and N. Durazzi. 2025. "The Comparative Political Economy of the Green Transition: Economic Specializations and Skills Regimes in Europe." *Regulation & Governance* Online First: 1–16.

Gabor, D., and B. Braun. 2023. "Green Macrofinancial Regimes." *Review of International Political Economy*, 32(3): 542–568.

Meckling, J., and J. Nahm. 2022. "Strategic State Capacity: How States Counter Opposition to Climate Policy." *Comparative Political Studies* 55(3): 493–523.

Mowery, D. C., R. Nelson & B. Martin. 2010. "Technology policy and global warming: why new policy models are needed (or why putting new wine in old bottles won't work)". *Research Policy* 39: 1011–1023.

June 26, 2026

Regional innovation clusters

Required reading

Birch, K., and A. Cumbers. 2010. "Knowledge, Space, and Economic Governance: The Implications of Knowledge-Based Commodity Chains for Less-Favoured Regions." *Environment and Planning A: Economy and Space* 42(11): 2581–2601.

Further readings

Karo, E. & R. Kattel. 2015. "Economic development and evolving state capacities in Central and Eastern Europe: can "smart specialization" make a difference?". *Journal of Economic Policy Reform* 18 (2): 172–187.

Mccann, P. & R. Ortega-Argiles. 2015. "Smart Specialization, Regional Growth and Applications to European Union Cohesion Policy". *Regional Studies* 49 (8): 1291–1302.

Mitsch, F., A. Hassel, and D. Soskice. 2024. "Southern Germany's Innovation Clusters: Regional Growth Coalitions in the Knowledge Economy." III Working Paper. London: London School of Economics and Political Science.

Huggins, R., A. Johnston, M. Munday, and C. Xu. 2023. "Competition, Open Innovation, and Growth Challenges in the Semiconductor Industry: The Case of Europe's Clusters." *Science and Public Policy* 50(3): 531–547.

July 3, 2026 – no class

July 10, 2026

Innovation policy and the compensation of losers

Required reading

Rodríguez-Pose, A. 2017. "The Revenge of the Places That Don't Matter (and What to Do About It)." *Cambridge Journal of Regions, Economy and Society* 11(1): 189–209.

Further readings

Iversen, T. & D. Soskice. 2015. "Democratic Limits to Redistribution: Inclusionary versus Exclusionary Coalitions in the Knowledge Economy." *World Politics* 67 (2): 185–225.

Iversen, T. 2024. "Unleashing a Monster? Causes and Consequences of the Knowledge Economy in Advanced Capitalist Democracies." *World Politics* 77: 39-50.

Ornston, D. 2014. "From Social Protection to Skill Formation: Diversified High-Tech Production in Denmark." In *When Small States Make Big Leaps*, 92–125. Cornell University Press.

Seidl, T. 2023. Investing in the knowledge economy: The comparative political economy of public investments in knowledge-based capital. *European Journal of Political Research* 62: 924–944.

Trebilcock, M. 2014. "Climate Change Policy: Managing More Heat in the World's Kitchens." In *Dealing with Losers: The Political Economy of Policy Transitions*, 119–137. Oxford University Press.