PROF. LAURA DIAZ ANADON - CURRICULUM VITÆ

Updated June 2022

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ACADEMIC EXPERIENCE

ACADEMIC E.	AFERIENCE
Sept 2021- June 2022	Harvard Kennedy School of Government, Harvard University, Cambridge, MA, USA Visiting Scholar (sabbatical)
Jan 2021-	Tsinghua University , Beijing, China Distinguished Visiting Professor (3 years)
Sept 2016-	University of Cambridge, Cambridge, UK Chaired (full) Professor of Climate Change Policy, Department of Land Economy, Sept. 2017- Director of the Centre for Environment, Energy and Natural Resource Governance (CEENRG), Oct. 2020- Fellow at St. John's College, July 2022- Senior Keynes Fund Fellow, January 2022- Bye-Fellow at Peterhouse, University of Cambridge, Oct. 2016-October 2021 Fellow in the Center for Environment, Energy and Natural Resource Governance (CEENRG), Sept. 2016- Associate Researcher in the Energy Policy Research Group, Oct. 2016- University Lecturer (Assist. Prof.) in Public Policy, Dept. of Politics & Int'l Studies, Sept. 2016-Aug. 2017
July 2015- Aug 2016	University College London (UCL), Department of Science, Technology, Engineering and Public Policy (STEaPP), London, United Kingdom Visiting Senior Lecturer in Science, Technology, Innovation and Public Policy Honorary faculty in the Department of Chemical Engineering
May 2008-	Harvard University, John F. Kennedy School of Government (HKS), Cambridge, MA, USA Assistant Professor of Public Policy, July 2013-August 2016 Affiliate of the Belfer Center for Science & International Affairs, September 2016- Faculty Associate, Harvard University Center for the Environment (HUCE), July 2013-August 2016 Faculty Associate, Weatherhead Center for International Affairs, September 2013-August 2016 Co-Principal Investigator, Energy Technology Innovation Policy (ETIP) group, July 2013-July 2015 Associate Director, Science, Technology and Public Policy program, July 2013-July 2015 Member of the Board, Belfer Center for Science and International Affairs, June 2013-July 2015 Associate Director, Science Technology and Public Policy (STPP) program, June 2010-July 2015 Adjunct Lecturer in Public Policy, June 2011-June 2013 Director, Energy Technology Innovation Policy (ETIP) research group, June 2010-June 2013 Project Manager, Energy Research, Development & Demonstration Policy project, May 2008-2011
EDUCATION 2007-2010	Harvard University, John F. Kennedy School of Government, Cambridge, MA, USA Masters in Public Policy, concentrations in International & Global Affairs/Science, Tech. & Public Policy

2007-2010	Harvard University, John F. Kennedy School of Government, Cambridge, MA, USA Masters in Public Policy, concentrations in International & Global Affairs/Science, Tech. & Public Policy
2003-2006	University of Cambridge, Department of Chemical Engineering, Cambridge, UK Ph.D. in Chemical Engineering (Queens' College)
	Thesis title: "Transient hydrodynamics and reaction in trickle-bed reactors using NMR and MRI" Supervisor: Prof. Lynn F. Gladden, FRS. External examiners: Prof. Dieter Mewes and Prof. Bill Patterson
1999-2003	University of Manchester, Department of Chemical Engineering, Manchester, UK M.Eng. 1st Class Honours – Chemical Engineering with German (Integrated Bachelors & Masters degree) Reynolds Prize for "Best Graduate of 2003"
2001-2002	University of Stuttgart, Department of Process Engineering, Stuttgart, Germany 'Diplomarbeit' (final dissertation in German engineering schools) and 12 exams

OTHER PROFESSIONAL EXPERIENCE

March European Scientific Advisory Board on Climate Change

2022-2026 *Member of the Advisory group*, with the Secretariat at the European Environment Agency, Copenhagen.

Selected as one of the 15 members of the European Scientific Advisory Board on Climate Change to support the

EU's efforts to reach climate neutrality by 2050 as per the European Climate Law.

Jan 2022- Cambridge University Press

Member of the Academic Syndicate, which makes all decisions about books, book series, journals, online courses.

Sept 20- HM Treasury, UK Government

Nov 21 *Member of the Economics of Decarbonisation Advisory Group* for the Net Zero Review. The other members are

Prof. Lord Nick Stern, Lord Adair Turner, Prof. Dieter Helm CBE, Dame Minouche Shaifik, and Paul Johnson CBE.

June 2021- Climate Crisis Advisory Group (CCAG)

Member. CCAG is a high-level international advisory group meeting twice a month to help inform about the science of climate impacts, mitigation and adaptation. The other members include Sir David King, Prof. Johan Rockström,

Dr. Arunaba Ghosh, Prof. Qi Ye, Prof. Lavanya Rajamani, and Dr. Fatima Denton, etc.

June 2021- Cambridge Enterprise Ltd, Cambridge, UK

Non-Executive Director, Member of the Board of Directors. The company, which is part of the University, helps

and funds innovator and entrepreneurs to develop their ideas and expertise through commercial avenues (June 21,

2021-).

September Cambridgeshire and Peterborough Independent Commission on Climate, UK

2020- *Commissioner* of this <u>independent body</u> providing recommendations on climate mitigation policies.

Jul-Dec Spanish Office of Foresight and Strategy, Office of the President, Government of Spain, Madrid, Spain

2020 Expert to help draft the strategy to deal with Challenge 4 which is "to become carbon neutral

economy, sustainable in the use of resources, and resilient to climate change".

September The Carbon Trust Ltd, London, UK

2019- *Member* of the *Breakthrough Ideas Steering Group*.

February Intergovernmental Panel on Climate Change (IPCC), United Nations

2018- Lead Author for the 6th Assessment Report of the IPCC, Working Group III on Climate Change

Mitigation, Chapter 16 on Technology Innovation and Technology Transfer. 2018-2022.

September Innovation Caucus, UK

2016- Member of this committee of experts joint between the UK ESRC and Innovate UK to provide advice to the

UK industrial strategy (in my case in the area of energy and the environment).

2014-2015 Organization for Economic Cooperation and Development (OECD), Paris, France

Consultant on project on using technical insights from energy expert elicitations for energy policy

2010 Climate Strategies UK, Cambridge, UK (NGO)

Consultant for a World Bank InfoDev Project

Wrote case study on UNIDO's Cleaner Production Centers regarding their applicability to the design of Climate

Innovation Centers to overcome barriers to energy technology innovation in developing countries.

2009 United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, Bonn, Germany

Co-authored a background paper with Prof. Ambuj Sagar (IIT Delhi) for the UNFCCC's Expert Group on

Technology Transfer on the role of intellectual property rights on technology transfer for climate mitigation.

2007 Oliver Wyman Financial Services, London, UK

Consultant on financing of technology projects

2003-2006 Johnson Matthey Catalyst Technologies, Cambridge, UK

Process Technology Researcher (part-time)

2001 **DuPont, Environmental Technology and Management Section**, Asturias, Spain

Summer Sontara® Fiber Plant Researcher

2000 Bayer Pharmaceuticals, R&D and Quality Control Departments, Asturias, Spain

Summer Researcher

SELECTED AWARDS, SCHOLARSHIPS AND FELLOWSHIPS

• Awarded <u>J M Keynes Senior Fellowship</u> in Financial Economics, University of Cambridge. The objective of the award is to promote <u>leading interdisciplinary research and study in the area of financial economics</u>. November 2021. Effective on January 1, 2022.

- Awarded <u>Distinguished Visiting Professorship</u> at <u>Tsinghua University</u>, Beijing, China. The three-year post is an honour that also includes financial support for travel and collaborative engagement. January 2021-2024.
- Winner of the XVII Banco Sabadell Award for Economic Research for the best Spanish economics researcher under 40 (35\$k), June 2018.
- Harvard-Real Colegio Complutense Scholarship, 2007-2009
- Fundación Caja Madrid Fellowship (fully funding MPP), 2007
- US-UK Fulbright Commission Scholarship, 2006 (declined, would have fully funded MPP)
- European Federation of Chemical Engineering Student Award, 2005
- Britain's Top Younger Engineers Award at the House of Commons, RWE npower Section Award, 2005 (SET for Britain, now STEM for Britain)
- Cambridge European Trust Scholar and Isaac Newton Scholar, 2003-2006
- UK Engineering and Physical Science Research Council Scholarship, 2003-2006

Undergraduate

- Reynolds Prize for "Best Graduate of 2003" at the University of Manchester (UMIST) (out of 1,700 students)
- Best Final Year Design Project Award, Dept. of Chemical Engineering, University of Manchester (UMIST)
- Erasmus European Scholarship
- Shell Environmental Fellowship

PEER-REVIEWED PUBLICATIONS

Energy, Innovation and Climate Policy

- Sauer, JMT, Anadon, LD, Kirchherr, J, Plummer Braeckman, J, Schulhof, V. '<u>Determinants of Chinese and Western-backed development finance in the global electricity sector</u>.' *Joule* (2022) 6(6):1230-1252. doi:10.1016/j.joule.2022.05.003
- Sauer, JMT, Anadon, LD, Kirchherr, J, Plummer Braeckman, J, Schulhof, V. 'Chinese and multilateral development finance in the power sector'. Global Environmental Change (2022) 75:102553. Doi: 10.1016/j.gloenvcha.2022.102553
- Doblinger, C, Surana, K, Li, D, Hultman, N, Anadon, LD. 'How do global manufacturing shifts affect long term clean energy innovation? A study of wind energy suppliers.' Research Policy (2022) 51(7):104558; doi: 10.1016/j.respol.2022.104558
- 4. Meng, J, Way, R, Verdolini, E, **Anadon, LD.** 'Comparing expert elicitation and model-based probabilistic technology cost forecasts for the energy transition.' Proceedings of the National Academy of Sciences of the United States of America (PNAS)(2021) 118(27). https://doi.org/10.1073/pnas.1917165118
- 5. Moner-Girona, M, Bender, A, Becker, W, Bódis, K, Szabó, S, Kararachf, A.G., **Anadon, LD.** 'A multidimensional high-resolution assessment approach to boost decentralised energy investments in Sub-Saharan Africa'. *Renewable and Sustainable Energy Reviews* (2021), 148: 111282. https://doi.org/10.1016/j.rser.2021.111282.
- 6. Weinold, M, Kolesnikov, S, Anadon, LD. 'Quantifying the impact of performance improvements and cost reductions from 20 years of light emitting diode manufacturing.' Proceedings of the International Society for Optics

- and Photonics (SPIE). Light-Emitting Devices, Materials, and Applications XXV (2021): 1170611. Doi:10.1117/12.2577591.
- 7. Peñasco, C, **Anadon, LD**, Verdolini, E. 'Systematic review of the outcomes and trade-offs of ten types of decarbonization policy instruments.' *Nature Climate Change* (2021). https://doi.org/10.1038/s41558-020-00971-x.
- 8. Stephan, A, Anadon, LD, Hoffmann, VH. 'How has external knowledge contributed to lithium-ion batteries for the energy transition?' iScience (2021). https://doi.org/10.1016/j.isci.2020.101995
- Probst, B, Westermann, L, Anadon, LD, Kontoleon, A. '<u>Leveraging private investment to expand renewable power generation: Evidence on financial additionality and productivity gains from Uganda</u>.' World Development (2021). https://doi.org/10.1016/j.worlddev.2020.105347
- 10. Goldstein, AP., Doblinger, C., Baker, E., **Anadon, LD**. 'Patenting and business outcomes for cleantech startups funded by ARPA-E'. *Nature Energy*. (2020). DOI: 10.1038/s41560-020-00683-8
- 11. Probst, B, Anatolitis, V, Kontoleon, A, **Anadon, LD.** 'The short term costs of local content requirements in the Indian solar auctions.' *Nature Energy* (2020). https://doi.org/10.1038/s41560-020-0677-7.
- 12. Surana, K, Doblinger, C, Anadon, LD, Hultman, N. 'Effects of technology complexity on the emergence and evolution of wind industry manufacturing locations along global value chains.' Nature Energy (2020). https://doi.org/10.1038/s41560-020-00685-6
- 13. Hoppmann, J, **Anadon**, **LD**, Narayanamurti, V. 'Why matter matters: how technology characteristics shape the strategic framing of technologies.' Research Policy (2020) 49:1, 103882. DoI: https://doi.org/10.1016/j.respol.2019.103882.
- 14. Tang, L, Qu, J, Mi, Z, Bo, X, Chang, X, **Anadon, LD**, Wang, S, Xue, X, Li, S, Wang, X, Zhao, X. 'Substantial emissions reductions from Chinese power plants after the introduction of ultra-low emissions standards.' *Nature Energy* (2019). In Press. DoI: 10.1038/s41560-019-0468-1.
- 15. Doblinger, C, Surana, K, Anadon, LD. 'Governments as partners: the role of alliances in U.S. cleantech startup innovation.' Research Policy (2019):48(6); 1458-1475.
- 16. Meng, J, Zhang, Z, Mi, Z, Anadon, LD, Zheng, H, Zhang, B, Shan, Y, Guan, D. 'The role of intermediate trade in the change of carbon flows within China'. Energy Economics (2018) 76:303-312. Doi: 10.1016/j.eneco.2018.10.009
- 17. Bento, N, Wilson, C, Anadon, LD. 'Time to get ready: Conceptualizing the temporal and spatial dynamics of formative phases for energy technologies.' Energy Policy (2018) 119: 282-293. Doi: 10.1016/j.enpol.2018.04.015.
- Binz, C, Anadon, LD. 'Unrelated diversification in latecomer contexts—The emergence of the Chinese solar photovoltaics industry.' Environmental Innovation and Societal Transitions (2018) 28:14-34. Doi: 10.1016/j.eist.2018.03.005
- 19. Jordaan, SM, Patterson, L, **Anadon, LD.** 'A spatially-resolved inventory analysis of the water consumed by the coal-to-gas transition of Pennsylvania'. *Journal of Cleaner Production* (2018) 184: 366-374. Doi: 10.1016/j.jclepro.2018.02.217
- 20. Huenteler, J, Tang, T, Chan, G, **Anadon, LD**. 'Why is China's wind power generation not living up to its Potential?.' *Environmental Research Letters* (2018) 13: 044001. Doi: 10.1088/1748-9326/aaadeb
- 21. Verdolini, E, **Anadon**, **LD**, Baker, ED, Bosetti, V, Reis, L. 'Future prospects for energy technologies: insights from expert elicitations.' Review of Environmental Economics and Policy (2018) 12(1): 133-153. Doi: https://doi.org/10.1093/reep/rex028.
- 22. Li, Z, Siddiqi, A, **Anadon, LD**, Narayanamurti, V. '<u>Towards sustainability in water-energy nexus: Ocean energy for seawater desalination.</u>' *Renewable & Sustainable Energy Reviews* (2018) 82(3): 3833-3847. Doi: 10.1016/j.rser.2017.10.087.
- 23. Chan, G, Goldstein, AP, Bin-Nun, A, **Anadon, LD**, Narayanamurti, V. 'Six principles for energy innovation.' *Nature* (2017) 552: 25-27. Doi:10.1038/d41586-017-07761-0. (Corresponding author)
- Deng, H-M, Liang, Q-M, Liu, L-J, Anadon, LD. 'Co-benefits of greenhouse gas mitigation: a review and classification by type, mitigation sector and geography.' Environmental Research Letters (2017) 12:123001. Doi: 10.1088/1748-9326/aa98d2.
- Anadon, LD, Gallagher, KS, Holdren, JP. 'Rescue U.S. energy innovation'. Nature Energy (2017) 2: 760–763. doi:10.1038/s41560-017-0012-0
- 26. **Anadon, LD,** Baker, ED, Bosetti, V. 'Integrating uncertainty into public energy research and development decisions.' *Nature Energy* (2017) 2: 17071. Doi:10.1038/nenergy.2017.71. (All authors contributed equally).

- 27. Nemet, GF, Anadon, LD, Verdolini, E. 'Quantifying the effects of expert selection and elicitation design on experts' confidence in their judgments about future energy technologies.' *Risk Analysis* (2017) 37(2): 315-330. Doi: 10.1111/risa.12604. (All authors contributed equally).
- 28. Siddiqi, A, Stoppani, J, **Anadon, LD**, Narayanamurti, V. 'Scientific Wealth in Middle East and North Africa: Productivity, Indigeneity, and Specialty in 1981-2013'. PLoSONE (Public Library of Science ONE) (2016) 11(11): e0164500. doi:10.1371/journal.pone.0164500.
- 29. **Anadon, LD,** Chan, G, Harley, A, Matus, K, Moon, S, Murthy, S, Clark, W. 'Making Innovation Work for Sustainable Development'. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* (2016) 113(35): 9682–9690. (First three authors share co-first-authorship).
- 30. **Anadon, LD**, Chan, G, Bin-Nun, A, Narayanamurti, V. 'The pressing energy innovation challenge of the U.S. national labs.' *Nature Energy* (2016) 1: 16117. doi:10.1038/nenergy.2016.117
- 31. Siddiqi, A, Ereiqat, F, **Anadon, LD**. 'Formulating expectations for future water availability through infrastructure development decisions in arid regions.' Systems Engineering (2016) 19(2); 101-110. Doi: 10.1002/sys.21337 (2016).
- 32. Anadon, LD, Baker, ED, Bosetti, V, Reis, L. 'Expert views and disagreements about the potential of energy technology R&D.' Climatic Change (2016) 136(3): 677-691. Doi: 10.1007/s10584-016-1626-0.
- Santen, NR, Anadon, LD. 'Balancing solar PV deployment and RD&D: A comprehensive framework for managing innovation uncertainty in electricity technology investment planning.' Renewable and Sustainable Energy Reviews (2016) 60: 560-569.
- 34. Liu, Z, Davis, SJ, Feng, K, Hubacek, K, Liang, S, **Anadon, LD**, Chen, B, Liu, J, Yan, J, Guan, D. '<u>Targeted opportunities to address the climate-trade dilemma in China</u>.' *Nature Climate Change* (2016) 6: 201-206.
- 35. Surana, K, Anadon, LD. 'Public Policy and Financial Resource Mobilization in Developing Countries: a Comparison of Approaches and Outcomes in China and India.' Global Environmental Change (2015) 34: 340-359.
- 36. Grindle, AK, Siddiqi, A, Anadon, LD. 'Food security amidst water scarcity: insights on sustainable food production from Saudi Arabia.' Sustainable Production and Consumption (2015) 2: 67-78.
- 37. Liu, Z, Feng, K, Hubacek, K, Liang, S, **Anadon, LD**, Zhang, C, Guan, D. 'Four system boundaries for carbon accounts.' *Ecological Modelling* (2015) 318:118-125.
- 38. Guo, Y, Ru, P, Jun, S, **Anadon, LD**. 'Not in My Backyard, but Not Far away from Me: Local Acceptance of Wind Power in China.' Energy (2015) 82: 722-733.
- 39. Baker, E, Bosetti, V, **Anadon, LD**. 'Energy Policy Special Issue on Defining Robust Energy R&D Portfolios.' Energy Policy (2015) 80: 215-218. (Editorial article, equal contributions of authors).
- 40. Bosetti, V, Marangoni, G, Borgonovo, E, **Anadon, LD**, Barron, R, C. McJeon, WC, Politis, S, Friley, P. 'Sensitivity to Energy Technology Costs: A Multi-model comparison analysis.' *Energy Policy* (2015) 80: 244-263.
- 41. Verdolini, E, **Anadon, LD**, Lu, J, Nemet, GF. 'The effects of expert selection, elicitation design and R&D assumptions on experts' estimates of the future costs of photovoltaics.' *Energy Policy* (2015) 80: 233-243.
- 42. Baker, ED, Bosetti, V, **Anadon, LD,** Henrion, M, Reis, LA. 'Future costs of key low-carbon energy technologies: Harmonization and aggregation of energy technology expert elicitation data.' Energy Policy (2015) 80: 219-232
- 43. Zhang, C, **Anadon**, **LD**, Mo, H, Zhao, Z, Liu, Z. 'The water-carbon tradeoff of China's coal power industry.' *Environmental Science & Technology* (2014) 48(19): 11082-11089.
- 44. Hajjar, DP, Moran, GW, Siddiqi, A, Richardson, JE, **Anadon, LD**, Narayanamurti, V. 'Prospects for policy advances in science and technology in the Gulf Arab States: the role of international partnerships.' International Journal of Higher Education (2014) 3(3): 45-57.
- 45. Logar, N, Anadon, LD, Narayanamurti, V. 'Semiconductor Research Corporation: An Industry Collaborative for Mission-Oriented Research.' Minerva (2014) 52(2): 237-261.
- 46. Choi, H, **Anadon, LD**. 'The role of the complementary sector and its relationship with network formation and government policies in emerging sectors: The case of solar photovoltaics between 2001 and 2009.' Technological Forecasting and Social Change (2014) 82: 80-94.
- 47. Zhang, C, Anadon, LD. (2014) 'A multi-regional input-output analysis of domestic virtual water trade and provincial water footprint in China.' Ecological Economics (2014) 100: 159-172.

- 48. Zhang, C, Anadon, LD. 'Life cycle water use of energy production and its environmental impacts in China.' Environmental Science & Technology (2013) 24(47): 14459-14467.
- 49. Jordaan, SM, Anadon, LD, Mielke, E, Schrag, DP. 'Regional water- and land-use implications of reducing oil imports with natural gas, shale oil, or biofuels in the United States.' Environmental Science & Technology (2013) 47(21): 11976-11984. (Awarded Best Technical Paper at the Canadian Renewable Fuels Summit).
- 50. **Anadon, LD**, Nemet, GF, Verdolini, E. 'The future costs of nuclear power using multiple expert elicitations: effects of RD&D and elicitation design.' *Environmental Research Letters* (2013) 8: 034020. (Selected to appear in the monthly highlights collection and topic of an ERL journal Perspective)
- 51. Zhi, Q, Jun, S, Ru, P, Anadon, LD. 'The evolution of China's national energy RD&D programs: The role of scientists in science and technology decision-making.' Energy Policy (2013) 61: 1568-1585.
- 52. Kajenthira, A, Siddiqi, A, **Anadon, LD**. 'Bridging decision networks for integrated water and energy planning..' *Energy Strategy Reviews* (2013) 2(1). 46-58. (Energy Strategy Reviews: 4th of 25 Hottest Articles).
- 53. **Anadon, LD,** Bosetti, V, Bunn, M, Lee, A. 'Expert judgments about RD&D and the future of nuclear energy.' *Environmental Science & Technology* (2012) 41(21): 11497-11504.
- 54. Anadon, LD. 'Missions-oriented RD&D institutions in energy: a comparative analysis of China, the United Kingdom, and the United States.' Research Policy (2012) 41(10): 1742-1756.
- 55. Kajenthira, A, Siddiqi, A, Anadon, LD. 'The Case for Cross-Sectoral Water Reuse in Saudi Arabia: Bringing Energy into the Water Equation.' Journal of Environmental Management (2012) 102: 184-192.
- 56. Qiu, Y, Anadon, LD. 'The price of wind power in China during its expansion: Technology adoption, learning-by-doing, economies of scale, and manufacturing localization.' Energy Economics (2012) 34(3): 772-785.
- 57. Siddiqi, A, **Anadon, LD**. 'The Water-Energy Nexus in Middle East and North Africa.' Energy Policy (2011) 39(6): 4529-4540.
- 58. **Anadon, LD**, and Nemet, GF. 'Case study on the U.S. Synthetic Fuels Program: policy consistency, flexibility, and the long-term consequences of perceived failures.' *Global Energy Assessment*. Coordinated by IIASA. *Cambridge University Press*. June (2012).
- 59. Kempener, RK, and Anadon, LD. 'Case study on Energy RD&D investments in the United States and major emerging economies'. Global Energy Assessment. Coordinated by IIASA. Cambridge University Press. June (2012).
- 60. Sutherland, WJ, Bellingan, L, Bellingham, JR, Blackstock, JJ, Bloomfield, RM, Bravo, M, Cadman, VM, Cleevely, DD, Clements, A, Cohen, AS, Cope, DR, Daemmrich, AA, Devecchi, C, Anadon, LD, Denegri, S, Doubleday, R, Dusic, NR, Evans, RJ, Feng, WY, Godfray, HCJ, Harris, P, Hartley, SE, Hester, AJ, Holmes, J, Hughes, A, Hulme, M, Irwin, C, Jennings, RC, Kass, GS, Littlejohns, P, Marteau, TM, McKee, G, Millstone, EP, Nuttall, WJ, Owens, S, Parker, MM, Pearson, S, Petts, J, Ploszek, R, Pullin, AS, Reid, G, Richards, KS, Robinson, JG, Shaxson, L, Sierra, L, Smith, BG, Spiegelhalter, DJ, Stilgoe, J, Stirling, A, Tyler, CP, Winickoff, DE, Zimmern, RL. 'A collaboratively-derived science-policy research agenda.' PLoSONE (Public Library of Science ONE) (2012) 7(3): e31824. doi:10.1371/journal.pone.0031824.
- 61. Gallagher, KS, **Anadon, LD**, Kempener, R, Wilson, C. '<u>Trends in Global Energy-Technology Innovation</u>'. *Wiley Interdisciplinary Reviews Climate Change* (2011) 2(3): 372-396.
- 62. Chan, G, Anadon, LD, Chan, M, Lee, A. 'Expert Elicitation of Cost, Performance, and RD&D Budgets for Coal Power with CCS.' Energy Procedia (2011) 4: 2685-2692.
- 63. Narayanamurti, V, **Anadon, LD**, and Sagar, AD. 'Institutions for Energy Innovation: A Transformational Challenge.' Issues in Science & Technology, September (2009), pp. 57-64. U.S. National Academies.

Multiphase Flow and MRI

- 64. Dietrich, W, Anadon, LD, Sederman, AJ, Gladden, LF, Agar, D. 'Simulation studies on the performance enhancement in periodically operated trickle-bed reactors based on experimental local liquid distribution measurements.' Industrial & Engineering Chemistry Research (2012) 51: 1672-1679.
- 65. **Anadon, LD**, Sederman, AJ, Gladden, LF. 'Rationalising MRI, conductance and pressure drop measurements of the trickle-to-pulse transition in trickle beds.' Chemical Engineering Science (2008) 63: 4640-4648.
- 66. Gladden, LF, **Anadon**, **LD**, Dunckley, CP, Mantle, MD, and Sederman, AJ. 'Insights into gas-liquid-solid reactors obtained by magnetic resonance imaging.' *Chemical Engineering Science* (2007) 62: 6969-6977.

- 67. Anadon, LD, Sederman, AJ, Gladden, LF. 'The Mechanism of the Trickle-to-Pulse Transition in Fixed-Bed Reactors.' American Institution of Chemical Engineers Journal 52 (2006) 52: 1522-1532.
- 68. Gladden, LF, Akpa, BS, **Anadon, LD**, Heras, JJ, Holland, DJ, Mantle, MD, Matthews, S, Mueller, C, Sains, MC, Sederman, AJ. 'Dynamic MR imaging of single- and two-phase flows.' Chemical Engineering Research & Design (2006) **84**(A4): 272-28.
- 69. Gladden, LF, **Anadon**, **LD**, Lim, MHM, Sederman, AJ, and Stitt, EH. 'Insights into the Mechanism of the Trickleto-Pulse Transition in Trickle-Bed Reactors.' Industrial & Engineering Chemistry Research (2005) 44: 6320-6331.
- 70. **Anadon, LD**, Lim, MHM, Sederman, AJ, Gladden, AF. 'Hydrodynamics in two-phase flow within porous media.' *Magnetic Resonance Imaging* (2005) 23: 291-294.
- 71. Sederman, AJ, **Anadon, LD**, El-Bachir, MS, Lim, MHM, Mantle, MD, Sains, MC, and Gladden, LF. '<u>Latest developments in dynamic MRI of multi-phase systems</u>.' 4th World Congress on Industrial Process Tomography, Aizu, Japan (2005). Conference Proceedings.
- 72. Cilliers, JJ, **Anadon**, **LD**, Wee, FS. 'Temperature, classification and dewatering in 10 mm hydrocyclones.' *Minerals Engineering* (2004) 17: 591-597.

BOOKS AND BOOK CHAPTERS

- 1. <u>BOOK</u>: Siddiqi, A, **Anadon, LD** (Editors). 'Science and Technology Development in the Gulf States: Economic <u>Diversification through Regional Collaboration</u>.' *Gerlach Press*, Germany, Berlin. 2017. Also author of two chapters:
 - Chapter 1: Siddiqi, A, **Anadon, LD**. 'Scientific Wealth and Technical Capacity in the GCC: International Collaborations to Achieve New National Visions', introductory chapter by editors.
 - Chapter 2: Siddiqi, A, **Anadon, LD**. 'Science and Engineering Research Collaborations: Patterns of Integration and Extension in the GCC.'
- 2. <u>BOOK</u>: **Anadon**, **LD**, Bunn, M, Narayanamurti, V. (Editors). '<u>Transforming U.S. Energy Innovation</u>'. *Cambridge University Press*, Cambridge, United Kingdom (2014). ISBN-13: 9781107043718.
 - Book reviewed in Science and Public Policy, (2016), 1-2, doi: 10.1093/scipol/scw010
 - Also first author of two chapters and co-author in 4 chapters:
 - Chapter 1: Bunn, M, Anadon, LD, Narayanamurti, V. 'The need to transform US energy innovation.'
 - Chapter 2: **Anadon, LD,** Chan, G, Lee, A. 'Expanding, and improving targeting of, U.S. investment in energy innovation: an analytical approach.
 - Chapter 3: Logar, N, Anadon, LD, Narayanamurti, V. 'Maximizing the return on investment'
 - Chapter 4: Jones, C, Anadon, LD, Narayanamurti, V. 'Encouraging private-sector energy technology innovation and public-private cooperation.'
 - Chapter 5: Kempener, K, Bunn, M, Anadon, LD. 'Maximizing the benefit from international energy innovation cooperation.'
 - Chapter 6: **Anadon**, LD, Narayanamurti, V, Bunn, V. 'Transforming US energy innovation: how do we get there?'
- 3. BOOK CHAPTER: Siddiqi, A, **Anadon, LD**, Narayanamurti, V. 'Science and Engineering Education in the GCC: Challenges in the Road for Transformation'. In 'Higher education investment in the Arab States of the Gulf: Strategies for Excellence and Diversity'. Eds. Dale Eickelman and Rogaia Mustafa Abusharaf. *Gerlach Press*, Berlin, Germany. 2017.
- 4. BOOK CHAPTER: **Anadon, LD**, Nemet, GF. 'The U.S. Synthetic Fuels Program: Policy consistency, flexibility, and the long-term consequences of perceived failures.' In "Energy Technology Innovation: Learning from Success and Failure." Edited by A Grübler and C Wilson. In *Cambridge University Press*, Cambridge, United Kingdom (2013), pp. 257-274
- 5. BOOK CHAPTER: Grübler, A, **Anadon, LD**, Gallagher, KS, Kempener, R, O'Rourke, Anastasia, Wilson, C. 'Global R&D, market formation, and diffusion investments in energy technology innovation.' In "Energy Technology Innovation: Learning from Success and Failure." Edited by A Grübler and C Wilson. *Cambridge University Press*, Cambridge, United Kingdome (2013), pp. 292-308.
- BOOK CHAPTER: Kempener, R, Anadon, LD, Gallagher, KS, Jiang, K. 'Energy RD&D Investments in the major emerging economies and the United States' In "Energy Technology Innovation: Learning from Success and <u>Failure</u>." Edited by A Grübler and C Wilson. *Cambridge University Press*, Cambridge, United Kingdom (2013), pp. 309-331.

- 7. BOOK CHAPTER: **Anadon, LD**, and Holdren, JP. 'Policy for Energy-Technology Innovation.' In "<u>Acting in Time on Energy Policy</u>." Edited by KS Gallagher. (2009). *Brookings Institution Press*.
- 8. BOOK CHAPTER: Gladden, LF, Akpa, BS, Anadon, LD, Dunckley, CP, Lim, MHM, Mantle, MD, and Sederman, AJ. 'Magnetic Resonance Imaging: A new window on the catalyst operating in the reactor environment.' Turning Points in Solid-State, Materials, and Surface Science. KDM Harris and PP Edwards (Editors). Royal Society of Chemistry, Cambridge, UK (2008), pp. 457-478.
- 9. BOOK CHAPTER: Gladden, LF, **Anadon, LD**, Lim, MHM, Sederman, AJ. '<u>Two-Phase Flow in Trickle-Bed Reactors</u>.' *NMR Imaging in Chemical Engineering. Wiley-VCH, Weinheim*, Germany (2006), pp. 534-551.

OTHER PUBLICATIONS

- 1. Co-author on report released at COP26. 'The new economics of innovation and transition: evaluating opportunities and risks.' Report of the project on the Economics of Innovation and System Transition (EEIST). November 4, 2021.
- 2. Penasco, C, Anadon, LD, Verdolini, V. 'How can we make green growth fair?' *Economics Observatory*. November 15, 2021.
- 3. Co-author of the <u>Final Report</u> of the <u>Cambridgeshire & Peterborough Independent Commission on Climate.</u> Leading the Business and Innovation chapter. October 2021.
- 4. Goldstein, A., Doblinger, C., Baker, E., **Anadon, LD.** 'Startups supported by ARPA-E were more innovative than others but an investment gap may remain. *Nature Energy* (2020). Policy Brief. Available at: https://doi.org/10.1038/s41560-020-00691-8.
- 5. Contributing expert to the first report of the 'Oficina de Prospectiva' (Office of Foresight) of the Office of the President in Spain. "España 2050". August-September 2020.
- 6. Co-author of Chapter 1 Economy of the University of Cambridge report on 'A blue print for a green future'. Report on a green recovery from Covid-19. June 2020.
- 7. Anadon, LD, Goldstein, AP, Baker, E, Doblinger, C. Submitted evidence in response to the UK Parliament Science & Technology Committee request on "A new UK research funding agency". Evidence number: RFA0065. July 31, 2020. Available for download at: https://committees.parliament.uk/work/265/a-new-uk-research-funding-agency/publications/written-evidence/?page=2
- 8. Surana, K, Doblinger, Anadon, LD. Policy brief: Collaboration between start-ups and federal agencies: surprising solution for energy innovation. Information Technology & Innovation Foundation (ITIF), Washington D.C. Joint with K. Surana and C. Doblinger. August 24, 2020. https://itif.org/publications/2020/08/24/collaboration-between-start-ups-and-federal-agencies-surprising-solution
- Contributor to conference report. Conference organized by The Royal Society. 'Energy Storage: Automotive and Grids'. Section on 'The impact of policy'. Part of the conference series at The Royal Society on 'Breakthrough Science and Technologies: Transforming our future. January 23, 2018. The Royal Society. London, UK
- Contributor to written Testimony to the US Congress House Committee on Science, Space, and Technology by Venkatesh Narayanamurti. Washington D.C. July 19, 2017. Testimony available at: http://docs.house.gov/meetings/SY/SY00/20170719/106277/HHRG-115-SY00-Wstate-NarayanamurtiV-20170719.pdf
- 11. **Anadon, LD.** "Science, Research and Innovation Performance of the EU, 2018". Section on "The future of energy in an interconnected world". Asked to write a section of the annual report of the *European Commission, Directorate-General for Research & Innovation*. Chapter 1.2 'Innovation, Productivity, Jobs and Inequality', pages 37-39. December 2018.
- 12. Bin-Nun, A, Chan, G, **Anadon, LD**, Narayanamurti, V, Maxted, SJ. "<u>The Department of Energy National Laboratories</u>." *Belfer Center for Science and International Affairs Report*. Harvard Kennedy School. (2017). November. Cambridge, MA, United States.
- 13. Chan, G, **Anadon, LD.** "Improving Decision Making for Public R&D Investment in Energy: Utilizing Expert Elicitation in Parametric Models." To be submitted. (Currently <u>EPRG Working Paper 1631.</u>)
- 14. Xu, X, Anadon, LD, Lee, L. '<u>Increasing Residential Building Energy Efficiency In China: An Evaluation of Policy Instruments</u>.' Discussion Paper 2016-02, Energy Technology Innovation Policy research group, Belfer Center for Science and International Affairs, Harvard Kennedy School, April 2016.
- 15. Patterson, L, Jordaan, SM, **Anadon, LD.** 'A Spatiotemporal Exploration of Water Consumption Changes Resulting from the Coal-to-Gas Transition in Pennsylvania.' Paper, Belfer Center for Science and International Affairs, Harvard Kennedy School and Nicholas Institute for Environmental Policy Solutions. <u>WP 01-2016</u>. Duke University, January 2016.
- 16. Bosetti, V, **Anadon, LD**, Baker, ED, Reis, LA, Verdolini, E. 'The future of energy technologies: an overview of expert elicitations.' Working paper 01-2016. **Green Growth Knowledge Platform (GGKP) Research Committee**

- **on Technology and Innovation.** A partnership of OECD, UNEP, the World Bank and the Global Green Growth Institute. January 2016.
- 17. **Anadon, LD**, Chan, G, Harley, A, Matus, K, Moon, S, Murthy, S, Clark, WC. 'Making innovation work for sustainable development.' <u>Harvard Kennedy School Working Paper RWP15-079</u>. December 2015.
- 18. Narayanamurti, V, Anadon, LD, Chan, G, Bin-Nun, A. 'Securing America's Future: Realizing the Potential of the DOE National Laboratories'. Testimony to United States Senate (written). Senate Appropriations Subcommittee on Energy & Water Development. Hearing on Hearing on Securing America's Future. Washington, D.C, October 28, 2015. Available at: http://belfercenter.ksg.harvard.edu/publication/26067/.
- 19. Gallagher, KS, **Anadon, LD**. 'DOE Budget Authority for Energy Research, Development, & Demonstration Database.' Cambridge, Mass.: *Fact Sheet*, Belfer Center for Science and International Affairs, HKS, September (2015).
 - 20. **Anadon, LD**, Bunn, M, Narayanamurti, V. 'Invited response to: Closing the Energy-Demonstration Gap.' Issues in Science & Technology, Forum, 31(3): 5-6. Spring 2015 (IS&T is a journal of the U.S. National Academy of Sciences).
- Huenteler, J, Anadon, LD, Lee, H, Santen, N. 'Commercializing Second-Generation Biofuels: Scaling Up Sustainable Supply Chains and the Role of Public Policy.' Report for the Energy Technology Innovation Policy research group, Belfer Center for Science and International Affairs, Harvard Kennedy School, November 13-14, 2014.
- 22. Anadon, LD, Odumosu, T, Santen, NR. 'Inventing the Future to Address Societal Challenges: Venky Narayanamurti's 75th Birthday.' Science, Technology, and Public Policy Program, Belfer Center for Science and International Affairs, Harvard Kennedy School, School of Engineering and Applied Sciences, Harvard University and Sustainability Science Program, Mossavar-Rahmani Center for Business and Government, Harvard Kennedy School, September 19-20, 2014.
- 23. Santen, NR. Anadon, LD. 'Electricity Technology Investments under Solar RD&D Uncertainty: How Interim Learning and Adaptation Affect the Optimal Decision Strategy.' Discussion Paper 2014-10, Discussion Paper for the Energy Technology Innovation Policy research group, Belfer Center for Science and International Affairs, Harvard Kennedy School, December 2014.
- 24. Anadon, LD, Matus, K, Moon, S, Chan, G, Harley, A, Murthy, S, Timmer, V, Abdel Latif, A, Araujo, K, Booker, K, Choi, H, Dubrawski, K, Friedlander, L, Ingersoll, C, Kempster, E, Pereira, L, Stephens, J, Vinsel, L, Clark, WC. 'Innovation and Access to Technologies for Sustainable Development: Diagnosing Weaknesses and Identifying Interventions in the Transnational Arena.' LSE Research Online and Sustainability Science Program Working Paper 2014-01. Sustainability Science Program and Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University, Cambridge, MA, 2014.
- 25. Siddiqi, A, Ereiqat, F, **Anadon, LD**. 'Assessing Future Water Availability in Arid Regions Using Composition and Salience of Decision Criteria.' MIT Engineering Systems Division, Working Paper Series ESD-WP-2014-10. March 2014.
- 26. **Anadon, LD.** Energy from Fossil Fuels: Challenges and Opportunities for Technology Innovation. 'U.S. Frontiers of Engineering book. U.S. National Academy of Engineering Press. January 2014.
- 27. Conchado, A, **Anadon, LD,** Linares, P. 'Innovación en energía en España: Análisis y recomendaciones.' Joint report by Economics for Energy and the Belfer Center for Science and International Affairs. Released in Economics for Energy event in Madrid, Spain, January 11, 2013.
- 28. **Anadon, LD**, Bunn, M, Chan, G., Chan, M, Kempener, R, Jones, C, Logar, N., Lee, A, Narayanamurti, V. "<u>Transforming U.S. Energy Innovation</u>." (2011). Report. Belfer Center for Science and International Affairs. Harvard Kennedy School, Cambridge, MA.
- 29. **Anadon, LD** et al. 'International workshop on research, development, and demonstration to enhance the role of nuclear energy in meeting climate and energy challenges.' Energy Technology Innovation Policy Workshop Report, Belfer Center for Science and International Affairs, Harvard Kennedy School and ICARUS Project, Fondazione Eni Enrico Mattei and International Center for Climate Governance, April (2011).
- 30. Narayanamurti, V, **Anadon, LD**, Breetz, H, Bunn, M, Lee, H, Mielke, E. '<u>Transforming the Energy Economy:</u>
 <u>Options for Accelerating the Commercialization of Advanced Energy Technologies</u>.' *Energy Technology Innovation Policy Workshop Report*, Belfer Center for Science and International Affairs, HKS, February (2011).
- 31. Kempener, K, Anadon, LD, Condor, J. 'Governmental Energy Innovation Investments, Policies and Institutions in the Major Emerging Economies: Brazil, Russia, India, Mexico, China, and South Africa.' Energy Technology Innovation Policy Discussion Paper 2010-16, Belfer Center for Science and International Affairs, HKS, November (2010).

- 32. **Anadon, LD.** 'UNIDO's National Cleaner Production Centres.' *Case study for Climate Strategies, UK.* Cambridge-based NGO on a project for the World Bank on how to set up "Climate Innovation Centers" to catalyze energy innovation in developing countries. August (2010).
- 33. Mielke, E, **Anadon, LD**, and Narayanamurti, V. 'Water Consumption of Energy Resource Extraction, Processing, and Conversion: A review of the literature for estimates of water intensity of energy-resource extraction, processing to fuels, and conversion to electricity.' Energy Technology Innovation Policy Discussion Paper No. 2010-15, Belfer Center for Science and International Affairs, Harvard Kennedy School, Harvard University, October (2010).
- 34. **Anadon, LD** et al. "DOE FY 2011 Budget Request for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendation." Cambridge, Mass.: Report for Energy Technology Innovation Policy research group, Belfer Center for Science and International Affairs, Harvard Kennedy School, April (2010).
- 35. **Anadon, LD**, Gallagher, KS, Bunn, M, Jones, C. "Tackling U.S. Energy Challenges and Opportunities: Preliminary Policy Recommendations for Enhancing Energy Innovation in The United States." Cambridge, Mass.: *Report for Energy Technology Innovation Policy research group*, Belfer Center for Science and International Affairs, Harvard Kennedy School, February 18 (2010).
- 36. **Anadon, LD**, Bunn, M, Chan, G, Chan M, Jones, C, Gallagher, KS, Narayanamurti, V. 'DOE FY 2011 Budget Request for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendations.' Cambridge, Mass.: *Report for Energy Technology Innovation Policy research group*, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 25 (2009).
- 37. **Anadon, LD.** Bunn, M, Jones, C, and Narayanamurti, V. 'U.S. Public Energy Innovation Institutions and Mechanisms: Status & Deficiencies.' Cambridge, Mass.: *Policy Memo for the Science, Technology, and Public Policy Program*, Belfer Center for Science and International Affairs, Harvard Kennedy School, January (2010).
- 38. Sagar, AD, and **Anadon, LD**. 'Climate Change: IPRs and Technology Transfer.' *Prepared for the UNFCCC Secretariat, Bonn, Germany*. May (2009).
- 39. **Anadon, LD**, Bunn, M, Gallagher, KS, 'DOE FY 2010 Budget Request and Recovery Act Funding for Energy Research, Development, Demonstration, and Deployment: Analysis and Recommendations.' Cambridge, Mass.: Report for Energy Technology Innovation Policy research group, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 25 (2009).
- 40. **Anadon, LD**, Bunn, M, and Gallagher, KS 'Tackling U.S. Energy Challenges and Opportunities: Preliminary Policy Recommendations for Enhancing Energy Innovation in The United States'. Cambridge, Mass.: *Report for Energy Technology Innovation Policy research group*, Belfer Center for Science and International Affairs, Harvard Kennedy School, February 18 (2009).
- 41. **Anadon, LD**, Bunn, M, and Gallagher, KS. 'DOE FY09 Budget Request for Energy Research, Development & Demonstration Commentary.' Cambridge, Mass.: *Report for Energy Technology Innovation Policy group*, Belfer Center for Science and International Affairs, Harvard Kennedy School, June 3 (2008).

CONFERENCE PRESENTATIONS

Climate, Energy and Innovation Policy

- 1. Co-author of presentation by Dr. Cristina Penasco at the 9th Atlantic Workshop of Energy and Environmental Economics. 'Assessing the effectiveness of energy efficiency measures in the residential sector through dynamic treatment effects: Evidence for the United Kingdom.' A Toxa, Spain, 23 June 2022.
- Co-author of presentation by Dr. Sergey Kolesnikov at the 2022 Conference of the European Forum for Studies of Policies for Research and Innovation (EU-SPRI). 'Technology Spillovers as Drivers of Clean Energy Innovation: Mechanisms, Enablers and Policy Implications.' Utrecht, The Netherlands. June 1, 2022.
- 3. Co-author of presentation by Prof. Gabe Chan in the *Association for Public Policy Analysis and Management 2021 Fall Research Conference*. (Postponed to March 2022). Washington D.C.
- 4. Co-author of presentation by Dr. Sergey Kolesnikov at the 2021 Conference of the *European Forum for Studies of Policies for Research and Innovation* (EU-SPRI). 'How technology spillovers contribute to clean energy innovation?' Online (would have been in Oslo, Norway). June 11, 2021.
- 5. Co-author of presentation by Dr. Cristina Penasco at the Annual Meeting of the *European Association of Environmental and Resource Economics* (EAERE). 'Assessing the effectiveness of energy efficiency measures in the residential sector through dynamic treatment effects: Evidence for the United Kingdom.' Online. June 9, 2021.
- 6. **Keynote Lecture.** *XXIII Annual Economics Meeting* (Asociación de Economía Libre ALdE). Online (Mallorca). 'Industrial Policy and Green Innovation for a more Competitive Europe after the Pandemic.' June 3, 2021.
- 7. Co-author of presentation by Dr. Kavita Surana in the Association for Public Policy Analysis and Management 2020 Fall Research Conference. Panel on: Connections between Firms, Industries, and Public Policy for Sustainable

- Energy Technology and Innovation. Presentation title: 'Long-Term Innovation in Component Suppliers in the Global Value Chain for Wind Energy Technologies.' Washington D.C., November 12, 2020.
- 8. Co-author of presentation by Dr. Sergey Kolesnikov in the in the Association for Public Policy Analysis and Management 2020 Fall Research Conference. Panel on: Connections between Firms, Industries, and Public Policy for Sustainable Energy Technology and Innovation Presentation title 'Technology spillovers and their impact on innovation in solar photovoltaics.' Washington D.C., November 12, 2020.
- 9. Co-author of presentation by Dr. Sergey Kolesnikov in the *European Forum for Studies of Policies for Research and Innovation* (EU-SPRI) 2020. Team led session. Presentation title 'Technology spillovers and their impact on innovation in solar photovoltaics.' Utrecht University, The Netherlands, June 3-5, 2020.
- 10. Co-author of presentation by Dr. Kavita Surana in *European Forum for Studies of Policies for Research and Innovation* (EU-SPRI) 2020. Team led session. Presentation title 'Component suppliers' innovation in global wind energy value chains: Exploring the role of geography for long-term innovation.' Utrecht University, The Netherlands, June 3-5, 2020.
- 11. Co-author of presentation by Dr. Deyu Li in *European Forum for Studies of Policies for Research and Innovation* (EU-SPRI) 2020. Team led session. Presentation title 'Identifying long-term innovations in wind energy technology: combining patent citation analysis with text-mining.' Utrecht University, The Netherlands, June 3-5, 2020.
- 12. Co-author of presentation by Dr. Kavita Surana at the 2019 Atlanta Conference on Science and Innovation Policy. 'Innovation and manufacturing in global value chains: impact of internationalization on component suppliers for wind energy technology.' Atlanta, United States, October 14, 2019.
- 13. Co-author of presentation by Dr. Cristina Penasco at the 24th Annual Conference of the European Association of Environmental and Resource Economists (EAERE). "What do we know about the multiple outcomes of key decarbonization policies." Manchester, United Kingdom, June 27, 2019.
- 14. Co-author of presentation by Dr. Jing Meng at the 38th Edition of the International Energy Workshop. "The performance and difference of different methods of clean energy technology forecasting." Paris, France, June 5, 2019.
- 15. **Keynote speaker**. XIV Conference of the Spanish Association of Energy Economics (AEEE). La Coruña, Spain. January 30, 2019.
- 16. Co-author of presentation by Benedict Probst in session on 'Globalizing the Clean Energy Transition' on 'Leveraging Private Investment to Increase the Deployment of Renewable Energy in Developing Countries: Evidence from Uganda.' (Probst, Westermann, Anadon, Kontoleon). Association for Public Policy Analysis and Management 2018 Fall Research Conference. Washington D.C., U.S.A. November 8, 2018.
- 17. Co-author of presentation by Kavita Surana in session on 'Globalizing the Clean Energy Transition' on 'Wind Energy Technology Innovation in the Manufacturing Global Value Chain: Exploring the Impact of Internationalization of Component Suppliers on Innovation' (Surana, Doblinger, Hultman, Anadon). Association for Public Policy Analysis and Management 2018 Fall Research Conference. Washington D.C., U.S.A. November 8, 2018.
- 18. Co-author in presentation by Prof. Sarah Jordaan on 'A spatially-resolved inventory analysis of the water consumed by the coal-to-gas transition of Pennsylvania'. *International Sustainable Production and Consumption Conference*. Manchester, U.K. October 4, 2018.
- 19. Co-author in presentation by Prof. Sarah Jordaan on 'A spatially-resolved inventory analysis of the water consumed by the coal-to-gas transition of Pennsylvania'. LCA XVIII Conference. Fort Collins, CO, USA. September 25-27, 2018.
- 20. Respondent to Prof. Tim Swanson's presentation on paper on 'Food Security and Global Public Good Provision: Macroeconomic Model for Global Land Use Policy'. *XX Annual BIOECON Conference* (Biodiversity and Economics for Conservation Conference), King's College, Cambridge, U.K. September 13, 2018.
- 21. **Keynote speaker**. Presentation on 'Policy incentives (and unintended consequences) for promoting low carbon innovation in firms.' Conference on "Green transformation and competitive advantage: Evidence from developing countries". Organized by the Green Growth Knowledge Platform (GGKP, OECD), The German Development Institute, and GIZ. Bonn, Germany. June 18-19, 2018.
- 22. Presenter of paper on 'Entrepreneurial Ecosystems: The Role of Government Alliances as Drivers of Clean-Tech Start-Up Innovation.' In a Panel on "Demand Pull Policies and Energy Innovation" 2016 Fall Conference Association for Public Policy Analysis & Management. Washington D.C., United States. November 3-5, 2016.
- 23. Co-author of presentation by G Chan on "An Analytical Approach to Improving Public Energy R&D Investment Decisions." In a Panel on "Science and Technology Research and Development Funding" 2016 Fall Conference Association for Public Policy Analysis & Management. Washington D.C., United States. November 3-5, 2016.
- 24. Co-author of paper presented by C Doblinger on "Entrepreneurial ecosystems: The role of government alliances as drivers of innovation". *SPRU 50 Years Conference*. University of Sussex, September 7-9, 2016.
- Co-author of paper presented by C Doblinger. 'Entrepreneurial Ecosystems: Assessing the Role of Governments and Partnerships as Drivers of Innovation and Growth.' 2016 R&D Management Conference. Cambridge, United Kingdom, 3-6 July 2016.

- 26. Presenter of paper coauthored with J Huenteler, T Tang and G Chan. 'Mind the Gaps Why hasn't Chinese Wind Power Lived Up to its Technical Potential? Conference on *Economics of innovation, diffusion, growth and the environment*. Hosted by Grantham Research Institute and the Centre for Economic Performance, London School of Economics and Political Science, London, September 16-18, 2015.
- 27. Co-author of presentation by C Binz. 'Path transplantation in Global Innovation Networks: The Emergence of the Chinese Solar PV Industry.' 6th International Sustainability Transitions (IST-6) Conference. Brighton (UK). 25-28 August, 2015.
- 28. Co-author of presentation by C Doblinger. 'Entrepreneurial Ecosystems: The Role of Government, Partnerships, and Geographic Location in the US Clean Tech Sectors.' 75th Annual Meeting of the Academy of Management. Vancouver, Canada. August 7-11, 2015.
- 29. **Plenary speaker**. 'Innovation in Energy Technologies.' *34th International Energy Workshop*. Co-hosted by the International Renewable Energy Agency (IRENA) in Abu Dhabi. June 3, 4 2015.
- 30. Co-author of presentation by G Chan.' Using Expert Judgment, Modeling and Optimization to Inform Energy R&D Decisions.' Session on "Expert Judgment and Learning Curves in Energy & Environment." *INFORMS (Institute for Operations Research and the Management Sciences) Annual Meeting 2014.* San Francisco, CA, November 9-12, 2014.
- 31. Presenter. 'Technology Spillovers in Solar Photovoltaics: How Much Did They Matter and How Did They Happen.' Panel on "Drivers of renewable energy technology innovation." 2014 Fall Research Conference of the Association for Public Policy Analysis & *Management* (APPAM). Albuquerque, NM, November 6-8, 2014.
- 32. Co-author of presentation with J Hoppmann and V Narayanamurti. 'How Technological Frames and Focus Co-Evolve with the Organizational Environment.' 2014 Academy of Management Annual Meeting. Session on Technology Innovation and Sustainability. Philadelphia, PA, August 1-5, 2014.
- 33. Co-author of presentation by K Surana. Public Policy and the Adoption of Green Energy Innovations in Developing Countries: Wind Energy in China and India.' Parallel session in Innovation, Sustainable Development and Energy in the South. 12th Globelics International Conference. Addis Ababa, Ethiopia. 29th-31st October 2014.
- 34. Co-author of presentation with G Nemet and E Verdolini. 'Meta-Analysis of Expert Elicitations of Future Technology Outcomes'. 6th Annual Conference of the Society for Benefit-Cost Analysis Meeting, "Benefit-Cost Analysis for Evidence-Based Decision-Making." Washington D.C., March 14, 2014.
- 35. Presenter. 'Energy technology expert elicitations for policy: their use in models and what can we learn from workshops and metaanalysis.' Symposium on Methods for research synthesis: A cross-disciplinary approach. *Society for Risk Analysis Annual Meeting*, 2013. Baltimore, Maryland. December 8-11, 2013.
- 36. Co-author of presentation with N Santen. 'A Stochastic Model for Power Generation RD&D and Capital Planning Under Decision-Dependent Uncertainty.' 10th International Conference on Computational Management Science. Montreal, May 1-3, 2013.
- 37. Co-author of presentation with E Verdolini. 'Meta-analysis of expert elicitations for future technology outcomes for nuclear power.' 12th International Association of Energy Economics (IAEE) European Energy Conference. Venice, Italy. September 9-12, 2012.
- 38. Co-author of presentation with G Chan. 'Using expert assessments of technical uncertainties for R&D portfolio design: strategies for U.S. energy R&D budget allocation.' *Climate Change Impacts and Integrated Assessment Workshop.* Snowmass, CO, United States. August 1, 2012.
- 39. Co-author of presentation with H Choi. 'Relationships between network formation, complementary industrial sectors, and government policies.' *Proceedings of the XXIII ISPIM (International Society for Professional Innovation Management) Conference, 2012, Barcelona, Spain. June 17-20.*
- 40. Co-author of presentation with A Kajenthira. 'Agricultural enterprise in Saudi Arabia: Deconstructing the water-energy nexus.' *World Congress on Water, Climate, and Energy. International Water Association.* Dublin, Ireland. May 13-18, 2012.
- 41. **Keynote speaker**. 'Energy Technologies: from Development to Deployment.' 30th U.S. Association of Energy Economics and International Association of Energy Economics North American Conference. 'Redefining the Energy Economy: Changing Roles of Industry, Government, and Research.' Washington D.C., United States. October 11, 2011
- 42. Co-author of presentation with S Jordaan. 'Temporal aspects of water use in shale gas development: implications for LCA.' Session on Fossil Fuels. *Life Cycle Analysis (LCA) XI*. Chicago, MI, United States. October 4-6, 2011.
- 43. Presenter. 'Quantifying technology uncertainty and the impact of innovation policies on the distribution of environmental and security benefits of energy RD&D investments.' 30th International Energy Workshop. Stanford University, CA, United States. June 6-8, 2011.

- 44. Co-author of poster presentation with G Chan. 'Expert Elicitation of Cost, Performance, and RD&D Budgets for Coal Power with CCS.' *International Conference on Greenhouse Gas Technology (GHGT) 10*. Amsterdam, The Netherlands. September 19-23, 2010.
- 45. Co-author of full presentation with M Chan. 'Expert Elicitation of Cost, Performance, and RD&D Budgets for GHG Reducing Technologies.' *INFORMS (Institute for Operations Research and Management Science) Annual Meeting* 2009. Cluster on Decision Analysis. San Diego, CA, United States. October 14, 2009.
- 46. Co-author of full presentation with M Chan. 'A Technology-Based Greenhouse Gas Reduction Strategy for 2030.' U.S. Society of Ecological Economics 2009 Conference. Washington, D.C. United States. June 1, 2009.
- 47. Panelist with SR Connors (MIT) and S Mills (AAAS). 'Sustainable Energy: Basic Science and Energy-Technology-Innovation Policy.' *Annual Meeting of the Biophysical Society* 2009; Panel on Sustainable Energy, Basic Science and Government Policy. Boston, MA, United States. March 3, 2009.

Multiphase Flow and MRI

- 48. Full presentation. 'Hydrodynamic transitions in trickle bed reactors using Magnetic Resonance Imaging.' *VDI-GVC-Fachausschusssitzung "Mehrphasenströmungen"* (Multiphase Flow Conference of the German Institution of Engineers). Überlingen bei Friedrichshafen, Germany. March 2-3, 2006.
- 49. Invited presenter. 'MRI in process engineering.' Institute of Process Engineering (IVT), University of Hannover. March 1, 2006. Hanover, Germany.
- 50. Full presentation. 'Hydrodynamic transitions in trickle-bed reactors using Magnetic Resonance Imaging.' 7th World Congress of Chemical Engineering. Glasgow, United Kingdom. 10th-14th July, 2005.
- 51. Full presentation. 'MRI Studies of the Trickle to Pulse Transition in Fixed Bed Reactors'. 5th International Symposium on Catalysis in Multiphase Reactors (CAMURE-5) & 4th International Symposium on Multifunctional Reactors (ISMR-4). Portoroz, Slovenia. 15th-18th June, 2005.
- 52. Full presentation. 'Hydrodynamics in Two-Phase Flow in Porous Media.' 7th International Conference in Magnetic Resonance in Porous Media. Ecole Polytechnique, Paris, France. July 4-8, 2004.
- 53. Full presentation. 'Hydrodynamic transition and periodic operation of trickle-bed reactors using MRI.' *Johnson Matthey Symposium of Catalytic Technology*. University of Nottingham, United Kingdom. March 25, 2005.
- 54. Full presentation. 'Studying hydrodynamic transitions and periodic operation of trickle-bed reactors using MRI.' Johnson Matthey Symposium of Catalytic Technology. University of Nottingham, United Kingdom. April 2004.

SELECTED INVITED PRESENTATIONS IN WORKSHOPS, SEMINARS, AND POLICY EVENTS

- 1. Invited panelist. *Annual Conference of the OECD Global Forum on Productivity* "Challenges for productivity growth in the post COVID-19 era". Panel on 'The accelerated green transition in the post-COVID19 era: what implications for productivity?' Brussels, Belgium. July 7, 2022.
- 2. Invited speaker. Princeton University Andlinger Center for Energy and the Environment "Designing policy for Net Zero". Princeton, New Jersey, USA. June 3, 2022.
- 3. Invited speaker. *Science and Technology Studies (STS) Circle at Harvard*. 'Technology Spillovers in the Energy Transition'. Harvard University Center for the Environment, Weatherhead Center for International Affairs Harvard Kennedy School. Virtual. March 7, 2022.
- 4. Inviter speaker. *Harvard Energy Policy Group* (HEPG). 'Power Sector Innovation: Creating the Future What do we know and developments.' Virtual. March 4, 2022.
- 5. Invited speaker. UMass Amherst. Seminar Series of the Wind Energy Fellows Program at the University of Massachusetts Amherst. In person. Amherst, MA. February 17, 2022.
- 6. Invited speaker. *Harvard Business School, Advanced Leadership Initiative Program*. 'The role of policy accelerating energy innovation to meet climate goals.' Virtual. February 25, 2022.
- 7. Invited speaker. Cambridge Institute for Sustainability Leadership (CISL) Program. 'The state of the science, physical impacts and tipping points.' Virtual. January 17, 2022.
- 8. Presentation to the Cambridge City Leaders council presenting the final report of the Cambridgeshire & Peterborough Independent Commission on Climate. December 14, 2021.
- 9. Invited speaker. Electricity Policy Research Group (EPRG) 2021 Virtual Winter Seminar. December 8, 2021.
- 10. **Keynote Speaker**. *LSE Economics Symposium*. On Policies Supporting Energy Innovation. Virtual. December 2, 2021.
- 11. Invited seminar speaker. Energy Policy Seminar Series. Hosted by the Harvard Kennedy School's Belfer Center and Mossavar Rahamani Center. 'Designing policies to accelerate energy innovation towards net zero.' November 29, 2021.

- 12. Various roles in the first-of-its-kind free (open access), livestreamed, and permanent *Environmental Research Conference 2021* organized by the *Institute of Physics*. I was in the <u>International Advisory Board</u>, an **Invited Speaker**, and the **Chair** of the third Energy session. November 15-19, 2021
- 13. **Panelist** at the *New York Times Climate Hub* during the COP26 on "Market Forces: Incentivising Climate Innovation" with Mark Landler, Mark Campanale, Tariye Gbadegesin and Pavan Sukhdev. November 9, 2021.
- 14. Work presented at the COP26 on UK Pavilion on "The Economics of the Energy Transition", showcasing the work of the BEIS-funded EEIST project, joint with Oxford, UCL, and partners at China NRDC's and India's TERI. Glasgow, November 4, 2021.
- 15. Invited speaker at '*The Climate Papers' Podcast* on '<u>Cobenefits</u>'. Organized by the UK Universities Network COP26, the LSE Grantham Institute and PlanetPod. October 15, 2021.
- 16. **Presenter and Panelist.** *Global Alliance of Universities on Climate* (GAUC) Conference on Pathways to net zero emissions and carbon/climate neutrality. Session on 'Net Zero, Growth and Justice'. June 30, 2021.
- 17. **Chair and Panelist**. Session on Mitigation Solutions. 'ClimateExp0' supported by the UNFCCC, the UK government, the Italian government, and the UK Universities Alliance on Climate. Six months ahead of COP-26. Mitigation Solutions https://climateexp0.org/
- 18. Panelist. UK Met Office Climate Science Conference. May 12, 2021. metofficeconference2021.info
- Keynote Speaker. 'Technological Change and Green Industrial Policy.' University of Sussex. UK. February 17, 2021.
- 20. Invited Panelist on "Digitalization in the Energy Sector Decarbonization" in the *Annual Event of the Telecommunications Trade Association in Spain (Digital.es)*. https://www.digitalessummit.es/. September 9, 2020. Madrid (virtual participation).
- 21. Invited Speaker. Fireside chat. European Forum Alpbach. September 2, 2020. https://2020.alpbach.org/events/108
- 22. Framing remarks. Session on "Thinking Globally" in the 'Enhancing Federal Clean Energy Innovation' workshop series organized by the US National Academies of Science, Engineering and Medicine. August 6, 2020. Online.
- 23. Invited speaker. *Centre for Science and Policy (CSaP) Annual Conference 2020*. Session on 'Net Zero.' London, June 17, 2020. (Moved online due to the COVID-19 pandemic))
- 24. Expert speaker. Cambridge Schools Eco-Council Seminar Series. Seminar on "Climate change, energy and sustainable communities." With school children from most of Cambridge schools and some international participants May 20, 2020. Online.
- 25. **Third Lead Author's Meeting of the** *IPCC 6*th *Assessment Report Meeting for Working Group III.* Quito, Ecuador. April 16-April 21, 2020. (Moved online due to COVID-19 pandemic)
- Presentation on 'Climate Change and Policy.' Board of Lloyd's Bank Corporate Markets. London, UK. March 13, 2020.
- 27. Invited seminar at the *St. Catherine's Political Economy Seminar Series*. 'The role of government policy to incentivise technology innovation to meet the climate change challenge.' St. Catherine's College, Cambridge, UK. March 4, 2020.
- 28. Invited respondent to presentation by Niva Thiruchelvam, the Deputy Director of the Net Zero Review at HM Treasury. *Christ's Climate Seminar Series*, organized by the Cambridge Centre for Science and Policy (CSaP) and Christ's College. The topic was "Economic and fiscal choices as we transition to net zero.' Christ's College, Cambridge, UK. February 6, 2020.
- 29. Invited presenter at the *Cambridge Climate Change Reading Group*. Presented on 'Governments as Partners: The Role of Alliances in U.S. Cleantech Startup Innovation.' Joint with INET, Rebuilding Macro (ESRC). Department of Economics, University of Cambridge, UK, February 17, 2020.
- 30. Invited speaker at the *Energy Policy Research Group (EPRG) Winter Seminar*, Moller Centre, Churchill College, Cambridge UK, December 13, 2019.
- 31. **Invited Keynote** at the *Cambridge Festival of Ideas*. Nature and Humans. St John's College, Cambridge, UK. October 16, 2019.
- 32. **Second Lead Author's Meeting of the** *IPCC 6th Assessment Report Meeting for Working Group III.* New Delhi, India. September 30 to October 4, 2019.
- 33. Invited Panelist. *Peterhouse-LSE 80th Anniversary Event* to commemorate the war-time evacuation of LSE to Peterhouse. Peterhouse, Cambridge, UK. Panel on 'Academic Impact on World Order: The Power of Ideas'. With Lord Nicholas Stern September 26, 2019.
- 34. Invited Panelist. 'Climate Change and Renewable Energy' on *Shaping Horizons 2019*, streamed live to various South American universities. University of Cambridge, September 10, 2019.
- 35. Invited Seminar. 'The growing challenge of climate change and the role of public policy and universities.' Cambridge Whitehall Group. London, June 27, 2019.
- 36. Invited Seminar. Instituto de Economía de Barcelona, Universidad de Barcelona. Barcelona, Spain. May, 30, 2019.
- 37. Presentation in the "Decarbonizing our energy system: low-carbon transition and innovation pathways towards a climate neutral EU by mid-century". Organized by INNOPATHS, the National Technical University of Athens, E3Modelling and the Energy Association in East and South Europe. Athens, Greece, May 15, 2019.

- 38. First Lead Author's Meeting of the *IPCC 6th Assessment Report Meeting for Working Group III*. Edinburgh, UK. April 1-4, 2019.
- 39. **Side-Event presentation at the** *UNFCCC COP24***.** Session on 'Financing low-carbon energy projects: the role of long-term policy, de-risking, PPPs and MDBs.'. Joint between CISL, C-EENRG, ETH and the Government of Lebanon. Talk entitled: 'Financing renewables: the need for complementary domestic policies to meet long term goals.' Katowice, Poland. December 10, 2018.
- 40. Invited Lecture at the 'Facultad de Economía y Empresa' of the University of Oviedo, Spain. 'The role of governments in technological innovation to mitigate climate change'. Sala de Grados, Economics Department. Oviedo, Spain. October 3, 2018.
- 41. Acceptance Speech. XVII Fundación Banco Sabadell Award for Economics Research, 2018. Headquarters of Banco Sabadell in Oviedo, Spain. October 2, 2018.
- 42. Invited presenter. *Winton Program on the Physics of Sustainability* Tea time discussion presentation: 'The impact of policy on the low-carbon transition: opening the black box of energy technologies.' Maxwell Building, Cavendish Laboratory, Cambridge. June 26, 2018.
- 43. Invited respondent and session chair (by Dr. Jae Edmonds, PNNL, Prof. John Holdren, Harvard, and Ellen Williams, UMD) on high level workshop organized by Harvard and the University of Maryland in Maryland on 'Accelerating Climate-Mitigating Technology Development and Deployment'. Maryland, MD. June 6-7, 2018.
- 44. Invited presenter in Workshop joint with the Energy Policy Research Group in Cambridge, FTI Consulting and Compass Lexicon. Presentation: Government funding and support for energy R&D: what do we know about outcomes?'. Cambridge, UK. May 11, 2018.
- 45. **Invited panelist** at the *launch of the new Bennett Institute for Public Policy* at the University of Cambridge. Panel on 'Technocrats without Technocracy? Can we develop policies for environmental sustainability that are popular and effective?' Cambridge, UK. April 16, 2018.
- Invited Participant. Council of Foreign Relations workshop on 'Promoting digital innovations to enable clean energy systems.' U.S. Council of Foreign Relations. New York City. February 21-22, 2018.
- 47. Invited presenter. U.K. Royal Society Conference on 'Transforming our Future' on "Energy storage: automotive and grids". Presentation on the role of policy and panelist on 'The development and deployment of energy storage.' Royal Society, London, January 23, 2018.
- 48. **Invited Chair and presenter**. Strategic Energy Technologies (SET) Plan The 10th Year Anniversary joint with the Central European Energy Conference, 2017. *EU Commission SET Plan, DG Research*. Panel III: *Global dimension of Energy R&I* (Research and Innovation). Bratislava, Check Republic. November 30, 2017.
- Invited speaker. Seminar to Ofgem (UK electricity regulator) during their team visit to the University of Cambridge organized by Energy@Cambridge. 'Parameterizing technology uncertainty to support policy decisions in energy.' Cambridge, UK, June 12, 2017.
- 50. **Invited speaker.** Seminar to the Nature "Public Policy Community" at the *Nature* Headquarters. London, June 7, 2017
- 51. Invited speaker. 'In Search of "Good" Energy Policy" Seminar. University of Cambridge. May 23, 2017.
- 52. **Invited speaker.** Council on Foreign Relations Workshop on "Harnessing International Cooperation to Advance Clean Energy Innovation Clean Energy Innovation." Session on 'Sharing Novel Domestic Institutions with International Partners.' Funded by the Sloan Foundation. New York City, March 29-30, 2017.
- 53. Invited Speaker. HKS/KFAS Workshop on "Science and Technology in the GCC: Building Research Capacity and Vital Linkages". Kuwait, March 22, 2017.
- 54. Chair of session. 'Session IV: The Atlantic Innovation Space.' Harvard Atlantic Conference: Challenges and Opportunities to the Atlantic Basin in a Globalized World. Madrid, Spain. March 15-17, 2016.
- 55. **Invited speaker.** *Science Policy Research Unit* (SPRU) Friday Seminar. University of Sussex, Brighton. December 9, 2016.
- 56. **Invited speaker**. International Symposium on Energy Innovation "The Role of Innovation for Long-Term GHG Mitigation." *Organized by the Canon Institute for Global Studies*. Tokyo, Japan. October 7, 2016.
- 57. **Invited speaker.** Session on Desirable R&D for Innovative Technologies and the Potential for International Cooperation. "Domestic energy innovation policy: 3rd Innovation for Cool Earth Forum (ICEF) 2016. Organized by the Japanese Ministry of Economy, Trade, and Industry (METI) and the New Energy Development Organization (NEDO) in Japan. Tokyo, Japan. October 5-6, 2016.
- 58. **Invited speaker.** 'International Workshop on Climate Strategies post-COP21 and Sustainable Economies in Europe.' *Aspen Institute Italia* and the Harvard Kennedy School. Florence, Italy, July 1-2, 2016.
- 59. **Invited presenter.** 'Making technology innovation work for sustainable development.' *Climate Policy Innovation Workshop*, The Graduate Institute, Geneva. May 26-27, 2016.
- 60. **Session speaker and conference co-organizer**. 'Enabling learning across sectors'. *Making Technological Innovation Work for Sustainable Development Conference*. Joint conference by the Harvard Sustainability Science Program and UCL STEaPP. May 11, 2011. London UK.

- 61. **Invited university-wide doctoral seminar speaker**. "Energy technology innovation and the role of governments: what it means for Spain". Universidad Pontificia de Comillas, ICADE/ICAI. Madrid, May 4, 2016.
- 62. **Invited seminar speaker**. "Energy technology innovation and the role of governments: state of the art, new developments, and key questions". *UCL Energy Seminar*. February 2, 2016.
- 63. **Invited keynote lecture**. *Geneva Dialogue Lecture*. 'Energy technology innovation and the role of domestic and international actors.' Joint event by The Graduate Institute Geneva and the Green Growth Knowledge Platform (an initiative of UNEP, OECD, the World Bank, and the Green Growth Initiative. Geneva, Switzerland. November 24, 2015.
- 64. Panel Chair. Panel on 'Complexity and Resilience of the Food System.' *UCL Institute for Sustainable Resources Global Food Symposium*. University College London, November 9-10, 2015.
- 65. Invited seminar speaker. 'Wind power in emerging economies and the role of policy.' University of Cambridge, Energy Policy Research Group (Department of Economics and Judge Business School). October 27, 2015.
- 66. Presenter. 'Why hasn't wind power in China reached its technical potential?' Conference on Economics of innovation, diffusion, growth and the environment. London School of Economics and Political Science (LSE) and Grantham Research Institute on Climate Change and the Environment. Royal Society of Arts, London. September 16-18.
- 67. **Session speaker and conference co-organizer**. 'Energy Technology Innovation Policy in the Backdrop of the US/China Emissions Deal.' Joint workshop co-organized by Tsinghua University and the Harvard University Kennedy School. Tsinghua University, Beijing, June 18-19, 2015.
- 68. **Invited faculty** in *ETH Zurich Ph.D. Academy on Sustainability and Technology*. 'Innovation in the Energy Sector The Interplay of Technologies, Firms, and Institutions.' ETH Zurich, June 4-9, 2015. (One of four faculty members providing feedback to papers by 15 PhD students from all over the world)
- 69. **Invited thought leader**. Presenter in session on 'R&D portfolio analysis.' *U.S. Department of Energy Cornerstone Workshop of the Quadrennial Technology Review*. Arlington, VA, December 4-5, 2014.
- 70. Presenter. 'Innovation in energy technologies and public policy.' *Harvard University Center for the Environment Graduate Seminar*. Cambridge, MA, September 26, 2014.
- 71. Co-author of presentation by G Chan. 'Principles and innovative methods for public R&D decision-making.' *Modelling and Analyses in R&D Priority-Setting and Innovation Workshop, International Energy Agency*. Paris, France, April 23, 2014.
- 72. **Invited seminar speaker.** 'Technology Innovation in the Energy Sector: The Challenges of Policy Design'. *MIT Leading Technology Policy Initiative Seminar Series*. MIT Cambridge, MA, February 27, 2014.
- 73. **Plenary speaker and presenter in the Academic Symposium** on 'R&D on Energy', organized by *FUNSEAM and the Chair of Energy and Sustainability in the University of Barcelona*. Barcelona, Spain, January 27-28, 2014.
- 74. Invited presenter. 'Energy technology expert elicitations for policy: their use in models and what can we learn from workshops and meta-analysis.' *Workshop on Methods for Research Synthesis: A Cross-Disciplinary Approach*. Harvard School of Public Health. Boston, MA, October 3, 2013.
- 75. **Invited speaker.** 'Challenges of our dependence on fossil fuels and of technology innovation.' **2013 U.S. Frontiers** of Engineering Symposium. National Academy of Engineering. Wilmington, Delaware. September 19-21, 2013
- 76. Invited presenter. 'Insights into technology cost dynamics: learning curves, innovation, and R&D.' AMPERE-ADVANCE-PIAMMDDI Technology Workshop. Funded by the EU 7th Framework Program for Research and the U.S. Department of Energy. Seville, Spain, May 27-28, 2013.
- 77. Invited presenter and adviser. 'Evaluación de Programas de Innovación en Energía en E.E.U.U.' World Energy Council, Mexico Chapter, Subsecretaría de Planeación de Energía (SENER), CONACYT (Mexico's NSF). Mexico City, March 18, 2013.
- 78. 'Energy Innovation Policy: Filling the Gaps and Managing Uncertainty.' Faculty seminar at the *Bren School of Environmental Science & Management, UC Santa Barbara*. Santa Barbara, CA. February 25, 2013.
- 79. 'The water-energy nexus in the Middle East and North Africa region.' Faculty seminar at the *Fletcher School of Law and Diplomacy, Tufts University. Medford, MA. January 17, 2013.*
- 80. 'Energy Innovation: Uncertainty and Learning', Faculty seminar at the *Harvard Kennedy School, Cambridge, MA, December 12, 2012.*
- 81. 'R&D investment decisions under uncertainty and the science of expert elicitations.' Seminar at the *Department of Engineering and Public Policy. Carnegie Mellon University*, Pittsburgh. November 26-27, 2012.
- 82. 'What is the government role in stimulating energy innovation.' *INNOVATION IdeaLab, WGBH Foundation* to help public television and radio come up with new programming (NOVA, Frontline, American Experience, BBC's THE WORLD radio series). Moderated by Miles O'Brien and Kara Miller at WGBH Boston. Boston. November 15, 2012.
- 83. 'Breaking down innovation in the energy sector.' Faculty seminar at *the School of Natural Resources, Energy & Resources Group, University of California Berkeley*, Berkeley, CA. November 1-2, 2012.

- 84. 'Energy R&D and National Energy Policy.' *American Association for the Advancement of Science (AAAS) Leadership Seminar in Science and Technology Policy.* Washington D.C. November 15, 2012.
- 85. 'Using scientific inputs for innovation policy.' Seminar at the *University of Cambridge, Department of Politics and International Studies*, Cambridge, United Kingdom. October 1, 2012.
- 86. 'RD&D investments under technical and policy uncertainty.' *MIT Electricity Student Research Group Guest Lecture*. Massachusetts Institute of Technology. Cambridge, MA, United States. December 6, 2011.
- 87. 'Innovation in Energy Technology as a Global Public Good.' *Innovation for Sustainability Working Group.*Sustainability Science Program, Harvard Kennedy School. Cambridge, MA, United States. November 7, 2011.
- 88. Invited presenter. 'Technology Assessment and Modeling (TEaM) Project First Workshop.' *Fondazione Eni Enrico Mattei*. Venice, Italy. September 1-2, 2011.
- 89. Invited presenter. 'Policy Options for Accelerating the Commercialization of Advanced Energy Technologies' International Energy Agency (IEA) 2nd Workshop on Accelerating Energy Innovation Project. Paris, France. May 24, 2011.
- 90. Invited presenter with A Lee. 'Uncertainty in the Benefits of RD&D.' Integrated Energy Policy Report 2010, Workshop on Benefits Assessment from the California Energy Commission. Sacramento, CA, United States. May 19, 2011.
- 91. 'Missions oriented energy RD&D Policies.' *Research Policy Workshop for Special Issue on Missions Oriented R&D Policies*. EPFL, Lausanne, Switzerland. May 16-17, 2011.
- 92. 'Energy and Innovation.' *University of Texas at Austin Energy Institute Symposium Series*. University of Austin, TX, United States. April 25, 2011.
- 93. 'Small and Modular Nuclear Reactors, their Potential, Regional Applicability, and RD&D Needs.' *International Workshop on: RD&D Needs to Enhance the Role of Nuclear Energy in Meeting Climate and Energy Challenges*. International Center for Climate Governance. Venice, Italy. April 7-8, 2011.
- 94. 'Transforming U.S. Energy Technology Innovation.' *Energy Policy Consortium and Energy Technology Innovation Policy Seminar Series*. Harvard Kennedy School. Cambridge, MA, United States. March 21, 2011.
- 95. Workshop on Achieving Decarbonization: Transforming National Energy Systems. Fletcher School of Law and Diplomacy. Tufts University. Medford, MA, United States. March 10-11, 2011.
- 96. Invited presenter. 'Government Policies for Energy Innovation.' *Economics for Energy Workshop*. February 7-8, 2011. Madrid, Spain.
- 97. 'Methodologies for energy RD&D allocation incorporating uncertainty.' Workshop on '*R&D Portfolio Analysis: Tools and Methodologies*. Pacific Northwest National Laboratory, sponsored by the Climate Change Technology Program at the U.S. Department of Energy. College Park, MD, United States. December 2-3, 2010.
- 98. 'The U.S. Synthetic Fuels Program.' *Global Energy Assessment*. Workshop on Knowledge Module 24 on energy technology innovation systems. Yale University, New Haven, CT, United States. September 23-24, 2010.
- 99. 'Public-private interactions for the development and commercialization of energy technologies.' *KETEP 2010 Energy Technology Leaders Forum*. Held by the Ministry of Knowledge Economic and Korea's Institute for Energy Technology Evaluation and Planning. Seoul, Korea. April 21, 2010.
- 100. 'Renewable Energy Policies in the United States and Spain.' Workshop on "Legal Framework of Renewable Energies in the United States of America, the European Union, and Spain." Real Colegio Complutense, Cambridge, MA, United States. April 5-6, 2010.
- 101. 'Energy Research Development, Demonstration & Deployment Policy.' *Energy Technology Innovation Policy & Consortium for Energy Policy Research Seminar Series*. Harvard Kennedy School, Cambridge, MA, United States. November 23, 2009.
- 102. 'The Drivers of Technical Change in Energy and Government Policy.' *Global Energy Assessment Working Group on 'Energy Innovation Systems,' KM 24*. Harvard Kennedy School. Cambridge, MA, United States. April 2-3, 2009.
- 103. 'Policy for Energy-Technology-Innovation.' Chapter presentation at the release of the book on 'Acting in Time on Energy Policy' at the Brookings Institution. Washington D.C., United States. May 20, 2009. 'Tackling U.S. Energy Challenges and Opportunities: Preliminary Recommendations for Enhancing Energy Innovation.' 8th Carbon Mitigation Initiative Annual Meeting at Princeton University. Princeton, NJ, United States. February 11, 2009.
- 104. 'Policy for Energy-Technology Innovation.' *Acting in Time on Energy Policy Conference*. Harvard Kennedy School and Charles Hotel. Cambridge, MA, United States. September 18, 2008.
- 105. 'Networking and Collaboration across Disciplines.' 5th Biennial National Symposium for the Advancement of Women in Science. Panelist with N Kopell, R Losick, and D Dabby. Harvard Faculty of Arts and Sciences. Cambridge, MA, United States. February 7, 2009.

- 106. Contributor to Key Research Questions Program. *Center for Science Policy at the University of Cambridge*. Cambridge, United Kingdom. This process involves providing key research questions, voting, and a symposium in April 5-7, 2011.
- 107. Expert interviewee. U.S. Department of Energy Program Analysis & Evaluation Division from the Office of the Chief Financial Officer. *Effort on reformulating the DOE's Strategic Plan—alignment to priorities set by the new administration*. Cambridge, MA, United States. August 18, 2009.
- 108. Invited participant. Pacific Northwest National Laboratory Global Energy Technology Strategy Project. Annual Meeting and Technical Review. University of Maryland at College Park and Cosmos Club. Washington D.C., United States. May 28-29, 2009.
- 109. Invited break-out participant. New York Academy of Sciences Workshop on Innovation and Clean Technology in New York State. Co-hosts: NYSERDA and NYSTAR. New York City, NY, United States. May 18, 2009.
- 110. Workshop participant. Energy Technology Innovation Policy (HKS)/Chinese Academy of Sciences/(Chinese) Ministry of Science and Technology Meeting. Harvard Kennedy School. Cambridge, MA, United States. April 16-17, 2009.
- 111. 'Expert interviewee.' New York Academy of Sciences, 2nd phase on project with NYSTAR and NYSERDA to assess assets and opportunities for New York State in clean technology. Cambridge, MA, United States. February 26, 2009.
- 112. Participant. National Commission on Energy Policy Renewable Electricity Group. October 2-3, 2008. Denver, CO.
- 113. Participant. *National Commission on Energy Policy Building Efficiency Group*. Washington D.C., United States. October 28, 2008.
- 114. 'Research, Development, Demonstration & Deployment Policy: Past and Current Efforts in the United States and International Picture.' *The Keystone Energy Board Annual Meeting*. Washington D.C., United States. June 12, 2008.
- 115. Participant. Pacific Northwest National Laboratory Global Energy Technology Strategy Project. Annual Meeting and Technical Review. University of Maryland at College Park and Washington D.C., United States. May 28-29, 2008.

TEACHING, RESEARCH SUPERVISION, AND SCHOOL SERVICE

University of Cambridge, Department of Land Economy, Cambridge, UK

Designed and delivered lectures in the "Environmental Economics" course (EP02), the "Energy & Climate" course (EP06), and the "Science, Evidence and Environmental Policy" (EP10) course of the M.Phil. in Environmental Policy (2017-2019). Co-led and co-designed core Paper 4 of the Land Economy tripos (undergraduate) on Land, Sustainability and Policy and taught core sessions to PhD students in Land Economy in 'Interdisciplinary research' (2016-). Taught annual sessions to the Conservation Leadership MPhil Program on 'Policy Analysis.' 2021-2022 on sabbatical leave.

Director of CEENRG. Responsible for all aspects of the centre, including proposal coordination, communications, seminars, offices (David Attenborough Building), staffing, Covid protocols, etc. The Center has 16 Ph.D. students, 10 faculty members and 7 postdocs.

Member of the Board of the University Conservation Research Institute (UCCRI)

Member of the Board of Land Economy

Member of the M.Phil. in Environmental Policy Admissions Committee

Chair of the Degree Committee (awarding all graduate degrees—Masters and PhDs)

Senior Promotions Committee

Human, Social and Political Sciences (HSPS) and History & Politics (H&P) Director of Studies at Peterhouse

M.Phil. in Environmental Policy Admissions Committee

Several appointments committees across different schools at the University of Cambridge

Ph.D. student supervision (I am currently supervising 7 PhD students)

University of Cambridge, Department of Politics and International Studies, Cambridge, UK

Designed and delivered MPhil in Public Policy Modules on "Science, Evidence and Policy" (2016-2019) and "Lent Term Policy Cases," (2016-2017); supervision and grading of independent research papers for M.P.P. students.

Member of the POLIS Research Committee (2016-2018) Member of the MPP Admissions Committee (2016-2018)

Ph.D. student co-supervision

University College London, Department of Science, Technology, Engineering & Public Policy, London, U.K.

Visiting Senior Lecturer in Science, Technology, Innovation & Public Policy: design and delivery of 6/12 hours of "Research Methods" (STEPGP16) course for STEaPP PhD students. Instructor of 2-hour session on cost-benefit

analysis for the MPA students as part of the "Analytic Methods" course. Lead discussant in the "STEaPP PhD Student Book Seminar"

Harvard University, John F. Kennedy School of Government, Cambridge, USA

Assistant Professor of Public Policy, 2013-: design and delivery of core course for MPP students in "Policy Analysis" API-505m (Fall 2013, 2014) with Dan Levy

Adjunct Lecturer, 2011-2013: design and delivery of "Energy Innovation Policy" IGA-525m for MPP and MPAID students (Fall 2011, Spring, 2013)

Ph.D. advisor and research supervisor for Policy Analysis Exercises (HKS masters thesis)

Executive education teaching in program on "Innovation for Development" in June 2013

MPP Admissions Committee 2014

Chair of IGA Faculty Committee on the Future of Teaching S&T and Policy at HKS: the other two members were Matthew Bunn and David Keith. Final report delivered on February 2015

University of Cambridge, Department of Chemical Engineering, Cambridge, UK

"Reactors" course supervisor (equivalent to teaching fellow) and 4th Year Research Project Supervisor, 2004-2006

FUNDED GRANTS (SINCE 2016)

Multiple funders and leadership roles in large interdisciplinary grants/projects

- Awarded **NERC** grant (Natural Environment Research Council, UK). Large interdisciplinary grant. 'UCam-Regen: Landscape Regeneration Solutions to the Interlinked Extinction and Climate Crises that support Sustainable Development.' LDA is the Cambridge PI leading work identifying inclusive and viable mechanisms to incentivise and support landscape delivery, including by deep engagement with local stakeholders. November 2021. Total value of grant approximately \$10 million (18 partners).
- Awarded **UK BEIS** (Department of Business, Energy, Innovation and Skills) and **FCO** (Foreign and Commonwealth Office) grant on the 'Economics of Energy Innovation and System Transitions' (<u>EEIST</u>). LDA is one of the two Cambridge PIs, where she **leads Stage 3** (empirical work). The total grant, covering 15 partners, is worth approximately \$5 million.
- UK ESRC Impact grant to advance work on 'The role of Government on Small and Medium Firm Low Carbon Innovation'. LDA is the PI. Awarded in February, 2020, program to be held in June 2022 with other leading empirical researchers on the economics of innovation. Total value of grant \$22k.
- Awarded joint **US NSF and UK ESRC** (i.e. UK NSF) grant in July 2018 to study the 'Co-location of manufacturing and innovation: drivers and impacts of technological innovation along the wind energy global value chain'. LDA is the Cambridge PI. Total value of grant \$520k (two partners).
- Awarded **Alfred P. Sloan Foundation** grant in June 2018 to study 'The role of technology and knowledge spillovers in the development of novel clean energy technologies.' Joint with the University of Minnesota and the Harvard Kennedy School, the University of Cambridge. Laura Diaz Anadon is the Cambridge PI. Total value of grant \$560k (three partners).
- Awarded grant from the **Cambridge Humanities Research Grants Scheme** in April 2018 (2017/18 Round 2) for project ton 'Assessing emergent energy storage technologies; an expert-elicitation approach'. LDA is the PI. Total value \$26k.
- Awarded EU Horizon 2020 (H2020) grant from the European Commission in June 2016. "INNOPATHS: Innovation Pathways, Strategies and Policies for the Low-Carbon Transition in Europe." LDA is the Cambridge PI and leader of Work Package 1. Total grant: \$6 million (15 partners).
- [Between 2009-2013 LDA managed a \$4 million research grant from the Doris Duke Charitable Foundation at HKS.]

Selected other Advisory Boards and Committees not covered elsewhere

- Jury of the **Princess of Asturias Prize** for International Cooperation. June 2022.
- Manager of the **J M Keynes Fellowship Fund**, appointed by the General Board, School of Humanities and Social Sciences, University of Cambridge (2018-Sept. 2021)
- Member of the Advisory Board of the **Winton Program for the Physics of Sustainability**, Physics Department, University of Cambridge (2017-)
- Advisory Board for the International Science Partnership program of the Federation of American Scientists
- Advisory Board for the International Energy Agency's Project on "Accelerating Energy Technology Innovation"
- Selected by the *Packard Foundation* to take part in *a pilot program* to find new strategies for the philanthropic community to mitigate climate change. Selected in March 2014 as one of 40 top innovators/thinkers in the climate mitigation space globally. In April 2014 *selected as one of 6 top innovators*.

- Scientific Committee for the World Congress on Water, Climate, and Energy of the *International Water Association* (IWA), Dublin 2012, and Mexico D.F. 2014.
- Harvard College Fulbright Evaluation Committee
- Project Co-Director: *Innovation and Access to Technologies for Sustainable Development*. The project sought to advance and apply understanding of the processes governing innovation of technologies across the energy, water, agriculture, pharmaceuticals, and manufacturing sectors (2012-2016).

PROFESSIONAL AFFILIATIONS

Association for Public Policy Analysis and Management (APPAM), Member 2014, 2016 Member of the Society for Risk Analysis 2012-2013 American Economic Association 2014-2015 Fellow of the Cambridge Philosophical Society Associate Member of the Institution of Chemical Engineers (IChemE), U.K. (1999-2008)

SERVICE IN SCHOLARLY JOURNALS

Member of the Editorial Board: Environmental Research Reviews (reviews section of Environmental Research Letters journal); Energy Research & Social Science; Oxford Open Energy Journal

Journal Editor: Sustainable Production and Consumption (2018-2021)

Editorial Advisory Panel Member: Nature Energy (2016-2020)

Editor: Papeles de Energía (public interest publication to inform the Spanish energy transition)

Reviewer of Journals: Science, Nature, PNAS, Environmental Science & Technology, Nature Energy, Nature Climate Change, Energy Policy, Climatic Change, Research Policy, Joule, Energy Economics, Environmental Research Letters, Energy, PlosONE, Ecological Economics, Energy & Environmental Science, Technology Forecasting & Social Change, Science of Science Policy, Journal of Cleaner Production, Sustainable Production & Consumption, Energy Research & Social Science, Environmental Modelling & Software, etc.

SERVICE REVIEWING GRANTS

U.S. National Science Foundation grants, U.K. Engineering and Physical Sciences Research Council (EPSRC), Council of Canadian Academies, UK Economic and Social Research Council (ESRC), Sloan Foundation, French research program on 'Make the Planet Great Again', Finland's, Japan's and South Korea's research funding agencies, etc. Also provided extensive feedback for the University for proposals of faculty in other departments.

LANGUAGES

- Fluent in English and Spanish.
- Intermediate level in German.
- Basic level in French.