Joëlle Noailly

Personal Data

| Address: | Centre for International Environmental Studies (CIES) | |
|----------|---|--|
| | Graduate Institute of International and Development Studies | |
| | PO Box , Geneva 21, Switzerland | |
| Phone: | +41(0)22 908 6222 | |
| EMAIL: | joelle.noailly@graduateinstitute.ch | |

CURRENT POSITION

| January 2020 - current | Associate Professor, Department of Environmental and Spatial Economics,School of Business and EconomicsVrije Universiteit, VU AmsterdamResearch Fellow, Tinbergen Institute, The Netherlands |
|------------------------|--|
| Apr 2015 - current | Head of Research - Centre for International Environmental Studies (CIES) Lecturer in Economics - Department of International Economics <i>Graduate Institute, Geneva</i> |

TEACHING

| 2019-2021 | ENVIRONMENTAL ECONOMICS, STREEM Master, Vrije Universiteit Amsterdam |
|------------|---|
| 2017-2019 | ENVIRONMENTAL ECONOMICS AND POLICY, MINT, Graduate Institute. Topics in Resource and Development, Ph.D. Econ, Graduate Institute. |
| 2016-2017 | ENVIRONMENTAL ECONOMICS AND POLICY, MINT, Graduate Institute. INTERNATIONAL ENVIRONMENTAL ECONOMICS AND POLICY, M.A. Econ, Graduate Institute. Advanced Resource Economics A, Ph.D. Econ, Graduate Institute. TRADE AND THE ENVIRONMENT, Summer Programme, Graduate Institute. |
| 2014-2015 | INTERNATIONAL ENVIRONMENTAL ECONOMICS AND POLICY, M.A., Graduate Institute. Doctoral Seminars in Resource Economics, Ph.D., Graduate Institute. |
| 2013 | TRADE, THE ENVIRONMENT AND SOCIAL ISSUES, Executive Education, Graduate Institute |
| 2008, 2009 | Guest lectures in ENVIRONMENTAL ECONOMICS, MSc., University of Wageningen. |
| 1998 | Teaching assistant in PUBLIC FINANCE, B.A., University of Delaware. |

PAST POSITIONS

| Apr 2013 - Mar 2015 | EU Marie-Curie Research Fellow CIES Program Lead "Innovation, Sustainable Growth and Technological Change" Graduate Institute, Geneva |
|---------------------|--|
| Sep 2008 - Mar 2013 | Senior Researcher Program Climate, Energy and Environment - Sector International Economics CPB Netherlands Bureau for Economic Policy Analysis, The Hague Visiting Fellow at CIES, Graduate Institute, Geneva, Apr 2012-Mar 2013. |
| Jun 2005 - Aug 2008 | Researcher Sector Competition and Regulation CPB Netherlands Bureau for Economic Policy Analysis, The Hague |
| Sep 2003 - May 2005 | Young Professional CPB Netherlands Bureau for Economic Policy Analysis, The Hague |

EDUCATION

| Ост 2003 | Ph.D in ENVIRONMENTAL ECONOMICS, VU Amsterdam , Amsterdam, Netherlands Ph.D Thesis: "Co-evolutionary modelling for sustainable development " Advisors: Prof. Cees WITHAGEN and Prof. Jeroen VAN DEN BERGH |
|-----------|--|
| June 2000 | M.Phil in Economics, Tinbergen Institute Graduate School, Amsterdam, Netherlands |
| May 1999 | M.Sc. in Environmental Economics, University of Delaware , Newark, USA |
| July 1997 | Undergraduate degree "Maîtrise" in INTERNATIONAL ECONOMICS University Lumière, Lyon, France , with Honors |

Research grants

- Subaward Economics of Innovation in the Energy Sector, 2020, \$2,500, NBER, MIT, Boston
- NRP73 'Sustainable Economy', Swiss National Science Foundation, 2018-2021, *Financing investments in clean technologies*, (715,000 CHF), co-applicant with G. de Rassenfosse (EPFL)
- Swiss Federal Office of Energy Research Grant, 2014-2016, *The impact of innovation on sectoral energy intensity in Switzerland* (90,000 CHF), main applicant
- Swiss Network for International Studies, 2014-2016 *Diffusion of low-cost energy technologies to developing countries* (200,000 CHF), co-applicant with L. Andonova
- Marie-Curie Intra-European Fellowship, European Commission, 2013-2015, main applicant *GREENSPILL project* (250,000 EUR)
- Marie Heim Fellowship for women in academics, Swiss National Science Foundation, 2013-2015 (200,000 CHF), main applicant, declined.

EDITORIAL AND CONFERENCE DUTIES

- Co-Editor of journal *Environmental and Resource Economics*, the official journal of the European Association of Environmental and Resource Economists (EAERE) (since August 2020)
- Member of Programme Committee for EAERE Annual Conferences (since 2009)
- Member of Scientific Evaluation Committee GGKP Conferences (2015-2016)
- Referee for Journal of Environmental Economics and Management, Environmental and Resource Economics, Nature Energy, Energy Economics, Resource and Energy Economics, Environment and Development Economics, Scandinavian Journal of Economics, European Journal of Finance, Research Policy, Energy Policy, Ecological Economics, Journal of Evolutionary Economics.
- Guest-editor of Special Issue on 'Innovation, Diffusion, Growth and the Environment' in *Environmental and Resource Economics* (2017)
- Co-organizer of CIES interdisciplinary seminars (since 2015), Graduate Institute
- Organizer of annual workshops 'Financing cleantech' (2018-2020), Graduate Institute
- Co-organizer of workshop 'Incentivizing the Grand Challenges' (2017), Graduate Institute
- Co-organizer of SNIS Workshop 'Climate Policy Innovation' (2017), Graduate Institute
- Co-organizer of conference 'Economics of innovation, diffusion, growth and the environment' (2015), London School of Economics.
- Organizer of Advanced Seminar Series in Environmental and Resource Economics (2013-2015), Graduate Institute
- Organizer of Special Session on 'Environmental policy and technological change' (2009), Annual Meeting EAERE, VU Amsterdam

MEMBERSHIPS, COMMITTEES AND CONSULTANCY

- Member of the European Association of Environmental and Resource Economics (EAERE)
- Member of the European Economic Association (EEA)
- Member of Energy Commission of the Swiss Academy of Sciences
- Member of RWI Research Network (Essen and Berlin)
- Member of Academia.net network for outstanding women in academics (on nomination)
- Member of Research Committee on Trade and Competitiveness, Green Growth Knowledge Platform
- Member of Research Committee on Technology and Innovation, Green Growth Knowledge Platform
- Scientific Commmittee Member for OECD project on 'Sustainable transition instruments for the Dutch industry' (2020-2021)
- Consultant for the European Investment Bank on 'Financing constraints in energy innovation' (2016)
- Scientific Expert for Swiss National Science Foundation (2016) and French National Research Agency (2014)

PUBLICATIONS

Work in progress

- Environmental Policy Uncertainty and Clean Investments (with Laura Nowzohour and Matthias van den Heuvel)
- Heard the News? Environmental Policy and Cleantech Investments (with Laura Nowzohour and Matthias van den Heuvel)
- Do financing constraints matter for the direction of technical change in energy R&D? (with Roger Smeets), *submitted*

Journal articles

- Wurlod, J.D. and J. Noailly (2018) The impact of green innovation on energy intensity: An empirical analysis for 14 industrial sectors in OECD countries, *Energy Economics*, 71, pp. 47-61.
- Sarr, M. and J. Noailly (2017) Innovation, diffusion, growth and the environment: Taking stock and charting new directions, *Environmental and Resource Economics*, 66(3), pp. 393-407. Co-editor of Special Issue on 'Innovation, diffusion and green growth' with M. Sarr, T. Swanson and L. Bretschger.
- Noailly, J. and V. Shestalova, (2017) Knowledge spillovers from renewable energy technologies: Lessons from patent citations, *Environmental Innovation and Societal Transitions*, 22(3), pp. 1-14.
- Noailly, J. (2016) Research funding: Patience is a virtue, Nature Energy, April, Vol 1.
- Noailly, J. and R. Smeets (2015) Directing technical change from fossil-fuel to renewable energy innovations: An empirical investigation using patent data, *Journal of Environmental Economics and Management*, 72(C), pp. 15-37.
- Noailly, J. and D. Ryfish (2015) Multinational firms and the internationalization of green R&D: A review of the evidence and policy implications, *Energy Policy*, 83(C), pp. 218-228.
- Noailly, J. (2012) Improving the energy efficiency of buildings: The impact of environmental policy on technological innovation, *Energy Economics*, 34, pp. 795-806.
- Noailly, J., S. Vujic and A. Aouragh (2012) The effects of competition on the quality of primary schools in the Netherlands, *Environment and Planning A*, 44(9), pp. 2153-2170.
- Noailly, J. and S. Batrakova (2010) Stimulating energy-efficient innovations in the Dutch building sector: Empirical evidence from patent counts and policy lessons, *Energy Policy*, 38, pp. 7803-7817.
- Noailly, J., D. Webbink and B. Jacobs (2011) Should the government subsidize enrolment in science and engineering studies? *Applied Economics Letters*, 18(4), pp. 371 375.
- Noailly, J. and R. Nahuis (2010) Entry and competition in the Dutch notary profession, *International Review of Law and Economics*, 30(2), pp. 178-185.
- Noailly, J., J.C.J.M. van den Bergh and C.A. Withagen (2009) Local and global interactions in an evolutionary resource game, *Computational Economics*, 33(2), pp. 155-173.
- Noailly, J. and S. Visser (2009) The impact of market forces in childcare provision: Insights from the 2005 Childcare Act in the Netherlands, *Journal of Social Policy*, 38(3), pp. 477-498.
- Noailly, J. (2007) Coevolution of economic and ecological systems: An application to pesticide resistance in agriculture. *Journal of Evolutionary Economics*, (17)5, pp. 1-29.

- Noailly, J., C.A. Withagen, and J.C.J.M van den Bergh (2007) Spatial evolution of social norms in a common-pool resource game. *Environmental and Resource Economics*, 36, pp. 113-141.
- Parsons, G. and J. Noailly (2004). A value capture property tax for financing beach nourishment projects: an application to Delaware's ocean beaches. *Ocean and Coastal Management*, 47, pp. 49-61.
- Noailly, J., J.C.J.M. van den Bergh and C.A. Withagen (2003) Evolution of harvesting strategies: replicator and resource dynamics. *Journal of Evolutionary Economics*, 13, pp. 183-200.

Books and books chapters

- Andersen, M. and J. Noailly (2021) Environmental policy and clean innovation in the mining sector, In: *Global Challenges for Innovation in the Mining Industry* Daly A., Humphreys D., Raffo J. and Valacchi G., Cambridge University Press.
- Noailly, J. (2008) Deregulation and quality of professional services: An economic and empirical perspective, In: *Professions under pressure*, Nicolle Zagers and Herman Boring (eds), The Hague, Boom Juridisch Uitgevers, pp.79-98.
- Noailly, J., C.A. Withagen and J.C.J.M. van den Bergh (2007) Spatial evolution of social norms in a common-pool resource game. In: *Sustainable resource use and economic dynamics*, L. Brestscher and S. Smulders (editors), Springer, Dordrecht, The Netherlands, pp.191-216.
- Noailly, J. (2003) Co-evolutionary modelling for sustainable economic development. Ph.D Thesis, Tinbergen Research Series.

Working papers and other publications

- Popp, D., F. Vona and J. Noailly (2020) Green stimulus, jobs and the post-pandemic green recovery, VoxEU.org, July 4.
- Boulouchos, K., Baranzini, A, Duca Widmer M., Furrer, B., Noailly, J. et al. (2019) Energy Research 2020+ in Switzerland: Recommendations for Future Programmatic Funding, Position Paper, Swiss Academies of Arts and Sciences.
- Noailly, J. and R. Smeets (2018) Do financing constraints matter for the direction of technical change in energy R&D? CIES Working Paper Series 58/2018, Graduate Institute Geneva.
- Noailly, J. (2017) How Trump's climate agenda threatens clean innovation", CIES Policy Brief 1.
- Noailly, J. and R. Smeets (2016) Financing energy innovation: The role of financing constraints for directed technical change from fossil-fuel to renewable innovation. EIB Working papers 06/2016, European Investment Bank, Luxembourg.
- Wurlod, J-D. and J. Noailly (2016) The impact of green innovation on energy intensity: An empirical analysis for 14 industrial sectors in OECD countries, CIES Research Paper no. 42 and Report for the Swiss Federal Office of Energy no 291154.
- Noailly, J. and D. Ryfish (2014) Multinational firms and the internationalization of green R&D: A review of the evidence and policy implications, CIES Research Paper no 33.
- Noailly, J. and V. Shestalova, (2013) Knowledge Spillovers from Renewable energy Technologies, Lessons from patent citations, CIES Research Paper no. 22.
- Noailly, J. (2010) Improving the energy efficiency of buildings: The impact of environmental policy on technological innovation, CPB Discussion Paper 137, The Hague.
- Noailly, J., S. Batrakova and R. Lukach (2010) Home green home A case study of policies inducing energy-efficient innovations in the Dutch building sector, CPB Document 198, The Hague.

- Noailly, J., S. Vujic and A. Aouragh (2009) Competition and quality in Dutch primary schools, CPB Discussion Paper 120, The Hague.
- Koning, P.W.C, J. Noailly and S. Visser (2007) Do non-profits make a difference? Evaluating non-profit vis-à-vis for-profit organisations in social services. CPB Document 142, The Hague.
- Noailly, J., S. Visser and P. Grout (2007) The impact of market forces on the provision of childcare: Insights from the 2005 Childcare Act in the Netherlands, CPB Memorandum 176, The Hague.
- Nahuis R. and J. Noailly (2005) Competition and quality in the notary profession, CPB Document 94.
- Noailly, J., M. Rensman, D. Waagmeester and D. Webbink (2005) Shortages of science and engineering students in the Netherlands, CPB Document 92, The Hague.
- Canton, E., D. Lanser, J. Noailly, M. Rensman and J. van de Ven (2005) Crossing Borders: When science meets industry, CPB Document 98, The Hague.

INVITED SEMINARS AND CONFERENCE PRESENTATIONS

- 2021 Climate Change and Environment Research Seminar Series, LSE, London (upcoming)
- 2020 NBER Conference Economics of Innovation in the Energy Sector, MIT, Boston (online) CIES seminar, Graduate Institute
- 2019 Workshop on the Economics of Environmental Policy and Innovation, University of Ottawa
- 2018 World Congress of Environmental and Resources Economics (WCERE), Gothenburg2017 European Economic Association Meeting, Lisbon
- European Association Meeting, Eisbon European Association of Environmental Economics (EAERE), Athens Workshop on Global Innovation Patterns in the Mining Industries, WIPO, Geneva International Symposium on Environment and Energy Finance Issues, IPAG, Paris Expert Workshop on Environmental Policy Data and Competitiveness, GGKP, Geneva
- 2016 Research Seminar on Environment, Resource and Climate Economics, RWI, Berlin Workshop on Corporate Finance Alternatives in Europe, European Investment Bank, Luxembourg
- 2015 Conference 'Economics of innovation, diffusion, growth and the environment', LSE, London Conference 'Our Common Future under Climate Change', Paris
- 2014 OFCE, Sciences-Po/SKEMA, Nice World Congress of Environmental and Resource Economics, WCERE, Istanbul Summer School on Empirical Research Methods, St Gallen International Academic Symposium on 'R&D on Energy', University of Barcelona
- 2013 University of Bath (invited seminar) Swiss Society of Economics and Statistics Meeting, Neuchatel Royal Economic Society (RES) Annual Conference, London
- 2012 European Association of Environmental Economics (EAERE), Prague SEEK Conference on 'The Green Growth Challenge', Mannheim (invited speaker) Swiss Federal Office of Energy, Bern
- 2011 International Workshop on 'Innovation and Energy Technologies', FEEM, Venice
- 2010 World Congress of Environmental and Resource Economics, WCERE, Montreal European Economic Association (EEA) Meeting, Glasgow
- 2009 OECD Global forum on environment and eco-innovation, Paris European Association of Environmental Economics (EAERE), Amsterdam (organization of special session on 'Environmental policy and technological change')
- 2008 DIME Workshop on Innovation, Sustainability and Policy, Bordeaux
- 2007 European Meeting on Evolutionary Economics, Manchester

- 2006 Royal Economic Society (RES) Annual Conference, Nottingham Competition Workshop on 'Regulation of Professional Services', The Hague World Congress of Environmental and Resource Economics, WCERE, Kyoto
- 2005 European Association for Research in Industrial Economics (EARIE) Conference, Porto International Industrial Organization Conference, Atlanta
- 2004 World Congress of Game Theory, Marseille
- 2002 World Congress of Environmental and Resource Economists, Monterey International Conference of the Society for Computational Economics, Yale Workshop on Economics with Heterogeneous Interacting Agents, Maastricht
- 2001 Workshop on Multi-Agent Systems for Natural Resources Management, Wageningen Summer School in Economic Theory - Environmental and Resource Economics, Jerusalem
- 2000 Doctoral Training Program on the Economics of Technological Change (DRUID-DIME), Strasbourg