

Oreane Yasmin Edelenbosch

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Work experience

2019-present	Climate, Energy and Air Department PBL Netherlands Environmental Assessment Agency <i>Researcher EU H2020 NAVIGATE project</i>
2017 - 2019	Polytechnic University of Milan <i>Post-doc researcher</i>
2016 - 2017	Copernicus Institute of Sustainable Development University of Utrecht <i>PhD researcher</i>
2013 - 2017	Climate, Energy and Air Department PBL Netherlands Environmental Assessment Agency <i>Junior researcher "energy demand pathways", work package manager of EU-FP7 ADVANCE project</i>
2011	Science, Technology and Society Department, University of Utrecht, Utrecht <i>Student assistant master Energy Science</i>
2010 - 2012	High school exam training institute "Va Bèta", Amsterdam <i>Co-owner/director</i>
2010 - 2011	Homework institute "Studiekring", Amsterdam <i>Educational coach</i>
2009	Highschool Baken Lyceum, Almere <i>Assistant Teacher Physics</i>

Publications

- van den Berg, Nicole J., et al. "Improved modelling of lifestyle changes in Integrated Assessment Models: Cross-disciplinary insights from methodologies and theories." *Energy Strategy Reviews* 26 (2019): 100420.
- Creutzig, F., Jochem, P., Edelenbosch, O. Y., Mattauch, L., Van Vuuren, D. P., McCollum, D., & Minx, J. (2015). Transport: A roadblock to climate change mitigation? *Science*, 350(6263). <https://doi.org/10.1126/science.aac8033>.
- Creutzig, F., Roy, J., Lamb, W. F., Azevedo, I. M. L., Bruine De Bruin, W., Dalkmann, H., ... Weber, E. U. (2018). Towards demand-side solutions for mitigating climate change. *Nature Climate Change*, 8(4). <https://doi.org/10.1038/s41558-018-0121-1>
- Deetman, Sebastiaan, et al. "Modelling global material stocks and flows for residential and service sector buildings towards 2050." *Journal of Cleaner Production* (2019): 118658.
- Edelenbosch, O. Y., Fisher, M., Patrignani, L., Van Sark, W. G. J. H. M., & Chatten, A. J. (2013b). Luminescent solar concentrators with fiber geometry. *Optics Express*, 21(103). <https://doi.org/10.1364/OE.21.00A503>
- Edelenbosch, O. Y., Hof, A. F., Nykvist, B., Girod, G., & van Vuuren, D. P. (2018). Transport electrification: the effect of recent battery cost reduction on future emission scenarios. *Climatic*

Change. Climatic Change.

- Edelenbosch, O. Y., Kermeli, K., Crijns-Graus, W., Worrell, E., Bibas, R., Fais, B., ... van Vuuren, D. P. (2017). Comparing projections of industrial energy demand and greenhouse gas emissions in long-term energy models. *Energy*, 122, 701–710
- Edelenbosch, O. Y., McCollum, D. L., Pettifor, H., Wilson, C., & van Vuuren, D. P. (2018). Transitioning to electric cars: Interactions between social learning and technological learning. *Environmental Research Letters*.
- Edelenbosch, O. Y., McCollum, D. L., van Vuuren, D. P., Bertram, C., Carrara, S., Daly, H., ... Sano, F. (2017). Decomposing passenger transport futures: Comparing results of global integrated assessment models. *Transportation Research Part D: Transport and Environment*, 55. <https://doi.org/10.1016/j.trd.2016.07.003>
- Edelenbosch, O. Y., van Vuuren, D. P., Bertram, C., Carrara, S., Emmerling, J., Daly, H., ... Saadi Failali, N. (2017). Transport fuel demand responses to fuel price and income projections: Comparison of integrated assessment models. *Transportation Research Part D: Transport and Environment*, 55. <https://doi.org/10.1016/j.trd.2017.03.005>
- Kermeli, Katerina, et al. "The scope for better industry representation in long-term energy models: Modeling the cement industry." *Applied Energy* 240 (2019): 964-985.
- Luderer, G., Vrontisi, Z., Bertram, C., Edelenbosch, O. Y., Pietzcker, R. C., Rogelj, J., ... Kriegler, E. (2018). Residual fossil CO₂ emissions in 1.5-2 °C pathways. *Nature Climate Change*, 8(7). <https://doi.org/10.1038/s41558-018-0198-6>
- McCollum, D. L., Wilson, C., Pettifor, H., Ramea, K., Krey, V., Riahi, K., ... Fujisawa, S. (2017). Improving the behavioral realism of global integrated assessment models: An application to consumers? vehicle choices. *Transportation Research Part D: Transport and Environment*, 55, 322–342.
- McCollum, D. L., Wilson, C., Bevione, M., Carrara, S., Edelenbosch, O. Y., Emmerling, J., ... van Vuuren, D. P. (2018). Interaction of consumer preferences and climate policies in the global transition to low-carbon vehicles. *Nature Energy*, 1–10.
- Mendoza Beltran, A., Cox, B., Mutel, C., van Vuuren, D. P., Font Vivanco, D., Deetman, S., ... Tukker, A. (2018). When the background matters: Using scenarios from Integrated Assessment Models (IAMs) in Prospective LCA. *Industrial Ecology*.
- Pettifor, H., Wilson, C., McCollum, D., & Edelenbosch, O. Y. (2017). Modelling social influence and cultural variation in global low-carbon vehicle transitions. *Global Environmental Change*, 47. <https://doi.org/10.1016/j.gloenvcha.2017.09.008>
- van Vuuren, D. P., Edelenbosch, O. Y., McCollum, D. L., & Riahi, K. (2017). A special issue on model-based long-term transport scenarios: Model comparison and new methodological developments to improve energy and climate policy analysis. *Transportation Research Part D: Transport and Environment*, 55. <https://doi.org/10.1016/j.trd.2017.05.003>
- van Vuuren, D. P., Stehfest, E., Gernaat, D. E. H. J., Doelman, J. C., van den Berg, M., Harmsen, M., ... Tabeau, A. (2017). Energy, land-use and greenhouse gas emissions trajectories under a green growth paradigm. *Global Environmental Change*, 42. <https://doi.org/10.1016/j.gloenvcha.2016.05.008>
- Van Vuuren, D. P., Stehfest, E., Gernaat, D. E. H. J., Van Den Berg, M., Bijl, D. L., De Boer, H. S., ... Van Sluisveld, M. A. E. (2018). Alternative pathways to the 1.5 °C target reduce the need for negative emission technologies. *Nature Climate Change*, 8(5). <https://doi.org/10.1038/s41558-018-0119-8>

Conferences

- O.Y. Edelenbosch, Davide Rovelli, "Long term effects of buildings infrastructure policies" in International Energy Workshop, Paris, France (2019).
- O.Y. Edelenbosch, Luciana Miu, Julia Sachs, Massimo Tavoni, Adam Hawkes, "Heterogeneous electricity consumption in the residential sector" in IAMC conference, Seville, Spain (2018).
- O.Y. Edelenbosch, Detlef van Vuuren, "Mitigating energy demand emissions: The integrated modelling perspective" in International Energy Workshop, Gothenburg, Sweden (2018).
- O.Y. Edelenbosch, "Low-carbon pathways for the transportation sector" in Final ADVANCE Conference, Brussels Belgium (2016).
- O.Y. Edelenbosch, D. McCollum, C. Wilson, H Pettifor, D.P. van Vuuren "Transitioning to electric cars: Interactions between social learning and technological learning" in iTEM2 Conference, Gothenburg, Sweden (2016).
- O.Y. Edelenbosch, D. McCollum, "Representation of heterogeneity and consumer behavior in the transport sector" in International BE4 workshop, London United Kingdom (2015).
- O.Y. Edelenbosch, D. McCollum, "Representation of heterogeneity and consumer behavior in the transport sector" in IAMC conference, Washington D.C., USA (2014).
- O. Y. Edelenbosch, M. Fisher, L. Patrignani, W. van Sark, and A. Chatten, "Luminescent Solar Concentrators with a Fibre Geometry," in Renewable Energy and the Environment Optics and Photonics Congress, OSA Technical Digest (online) (Optical Society of America, 2012), paper ST2A.3.

Organised meetings & workshops

- Workshop "Best practices for modeling human behaviour in IAMs" (20 participants, 22-23 November 2018, Milan, Italy). As part of the ERC Cobham project. Discussion to be published as a commentary in Nature Energy.
- Workshop "Expert Workshop "INNOVATION IN RELATION TO BUILDING ENERGY DEMAND IN IAMs" (60 participants, 20-21 January 2015, Utrecht, The Netherlands). Support staff for the FP-7 project ADVANCE.
- Project meeting "ADVANCE 4th project meeting" (50 participants. 21-23 January 2015, Utrecht, The Netherlands). On behalf of the FP-7 project ADVANCE. Report online available
- Workshop "Expert Workshop " ENHANCING THE STATE OF TRANSPORT MODELING IN IAMs" (60 participants, 19 November 2013, Vienna, Austria). Support staff for the FP-7 project ADVANCE.

Education

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| 2012 - 2013 | Research Internship
<i>PBL Netherlands Environmental Assessment Agency</i>
Title: Interaction Climate and Air quality Policy |
| 2011 - 2012 | Master Thesis
<i>Department of Physics, Imperial College London</i>
Title: Luminescent Solar Concentrator with a Fibre Geometry |
| 2010 - 2013 | Master Energy Science |

2008 - 2009 *Science Department, University of Utrecht*
Minor General History
University of Amsterdam

2006 - 2009 **Bachelor Bèta-Gamma with major Physics**
University of Amsterdam

Summer School

2014 **Young Scientist Summer Programme (June-Aug),**
International Institute for Applied System Analysis, Vienna
Austria

Languages

Dutch	Native
English	Fluent
Italian	Moderate
German	Moderate
French	Moderate

Other Experience

2016 Volunteer at Refugee Crisis Response NGO, Lighthouse Relief, Katsikas, Greece.

2015 Volunteer at ABC Amsterdam providing language course for refugees in emergency shelter, Amsterdam.

2007 - 2010 Social worker at foundation for streetkids and young mothers, Don Bosco Jonathan, Amsterdam

2009 Co-organiser of the "broeikasgasten" organization in preparation to the COP-15.

Travel Experience

2010 Silk Road overland
(Turkey, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan, China, Mongolia, Russia, Baltic States)

2005-2006 Around the world
(India, Australia, Thailand, Cambodia, Vietnam)
