

MARIËSSE VAN SLUISVELD

Mariësse van Sluisveld is a specialist in energy and climate policy assessment. She has specialised in applying model evaluation techniques to integrated assessment models. As a result, she has developed skills in defining and testing the plausibility of quantitative scenarios and metrics on systems change.

EDUCATION

2017
|
2012

- **PhD Environmental sciences**

Utrecht University & PBL Netherlands Environmental Assessment Agency
 Utrecht/ Bilthoven, The Netherlands

- Thesis title: "2C through different lenses"

2011
|
2009

- **MSc Environmental Sciences**

Utrecht University
 Utrecht, The Netherlands

- Thesis title: Paradox in Packaging Optimization

2009
|
2006

- **BSc Environmental Sciences**

Utrecht University
 Utrecht, The Netherlands

- Thesis title: Olivine: The underdog in climate mitigation

RESEARCH EXPERIENCE

2019
|
2017

- **Researcher Climate and Energy**

PBL Netherlands Environmental Assessment Agency
 The Hague, The Netherlands

- Working on decarbonization strategies for heavy industry under the auspices of the European Union funded H2020 REINVENT project

2017
|
2016

- **PhD Student**

Utrecht University
 Utrecht, The Netherlands

- Wrapping-up a PhD thesis titled '2C through different lenses'
- Evaluating long-term energy system change for a 2C constrained world', see
<https://dspace.library.uu.nl/handle/1874/350885>



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CONTACT INFO



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ONLINE VENUES



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[marieyesse.github.io](#)



[twitter.com/marieyesse](#)



[github.com/marieyesse](#)



[ORCID](#)



[Google Scholar](#)

SKILLS



Scenario evaluation



Data analytics



R



HTML



CCS

LANGUAGES



Dutch



English



German



French

2016
|
2014

- **Researcher Climate and Energy**
PBL Netherlands Environmental Assessment Agency
📍 Bilthoven, The Netherlands
 - Working on long-term implications of diverging actor behaviours on meeting the 2C climate objective under the auspices of the European Union FP-7 funded PATHWAYS project
- **Junior Researcher Global Change Modelling**
Utrecht University
📍 Utrecht, The Netherlands
 - Working on regional decarbonization strategies in line with the 2C climate objective under the auspices of the European Union funded FP-7 LIMITS and AMPERE projects

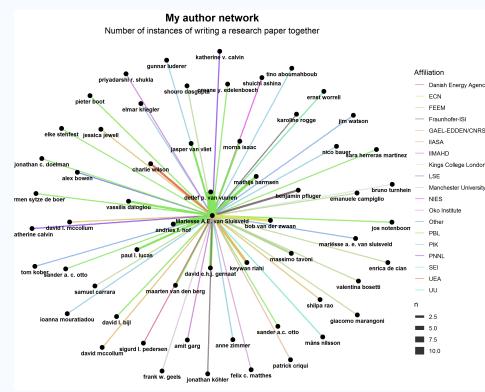
2014
|
2012

RESEARCH PAPERS

2018
2018
2018
2018
2018
2017

- **Alternative pathways to the 1.5 C target reduce the need for negative emission technologies**
Nature Climate Change
📍 Cited: 111x
 - DP van Vuuren, E Stehfest, DEHJ Gernaat, M van den Berg, DL Bijl, ...
- **Aligning integrated assessment modelling with socio-technical transition insights: An application to low-carbon energy scenario analysis in Europe**
Technological Forecasting and Social Change
📍 Cited: 7x
 - MAE van Sluisveld, AF Hof, S Carrara, FW Geels, M Nilsson, K Rogge, ...
- **Actors, decision-making, and institutions in quantitative system modelling**
Technological Forecasting and Social Change
📍 Cited: 4x
 - E De Cian, S Dasgupta, AF Hof, MAE van Sluisveld, J Köhler, B Pfluger, ...
- **Comparing future patterns of energy system change in 2 C scenarios to expert projections**
Global Environmental Change
📍 Cited: 3x
 - MAE van Sluisveld, MJHM Harmsen, DP van Vuuren, V Bosetti, C Wilson, ...
- **Open discussion of negative emissions is urgently needed**
Nature energy
📍 Cited: 42x
 - DP Van Vuuren, AF Hof, MAE Van Sluisveld, K Riahi

NOTE: I have collaborated with many researchers in the field of energy modelling, innovation science and social science (See the full view of my author network below)*



Several studies have also been picked up in more popular writing and policy relevant reports:

- ✓ Sluisveld et al (2018) in Carbon Brief
- ✓ Sluisveld et al (2018) in EnergiePodium
- ✓ Sluisveld & Worrell in IPCC AR5

- 2017
- **Low-carbon strategies towards 2050: Comparing ex-ante policy evaluation studies and national planning processes in Europe**
Environmental Science & Policy 📍 Cited: 1x
 - MAE van Sluisveld, AF Hof, DP van Vuuren, P Boot, P Criqui, FC Matthes, ...
- 2016
- **Exploring the implications of lifestyle change in 2 C mitigation scenarios using the IMAGE integrated assessment model**
Technological Forecasting and Social Change 📍 Cited: 36x
 - MAE van Sluisveld, SH Martínez, V Daioglou, DP van Vuuren
- 2015
- **Post-2020 climate agreements in the major economies assessed in the light of global models**
Nature Climate Change 📍 Cited: 116x
 - M Tavoni, E Kriegler, K Riahi, DP Van Vuuren, T Aboumaboub, A Bowen, ...
- 2015
- **Comparing future patterns of energy system change in 2 C scenarios with historically observed rates of change**
Global Environmental Change 📍 Cited: 28x
 - MAE van Sluisveld, JHM Harmsen, N Bauer, DL McCollum, K Riahi, ...
- 2015
- **Impact of fragmented emission reduction regimes on the energy market and on CO₂ emissions related to land use: a case study with China and the European Union as first movers**
Technological Forecasting and Social Change 📍 Cited: 17x
 - SAC Otto, DEHJ Gernaat, M Isaac, PL Lucas, MAE van Sluisveld, ...
- 2015
- **Impact of fragmented emission reduction regimes on the energy market and on CO₂ emissions related to land use: a case study with China and the European Union as first movers**
Technological Forecasting and Social Change 📍 Cited: 17x
 - SAC Otto, DEHJ Gernaat, M Isaac, PL Lucas, MAE van Sluisveld, ...
- 2013
- **A multi-model analysis of post-2020 mitigation efforts of five major economies**
Climate Change Economics 📍 Cited: 22x
 - MAE Van Sluisveld, DEHJ Gernaat, S Ashina, KV Calvin, A Garg, M Isaac, ...

- 2013
- **The paradox of packaging optimization—a characterization of packaging source reduction in the Netherlands**
Resources, Conservation and Recycling 📍 Cited: 19x
• MAE Van Sluisveld, E Worrell
 - **Material efficiency in Dutch packaging policy**
Philosophical Transactions of the Royal Society A: Mathematical, Physical ... 📍 Cited: 9x
• E Worrell, MAE van Sluisveld
 - **Inventorying waste minimisation methods for packaging on the Dutch market**
Cited: 0x 📍 2011
• MAE van Sluisveld

👤 PRESENTATIONS & INVITED TALKS

- 2019-06-03
- **To invest in lock-in or in structural change? Analysis of decarbonization strategies for heavy industry**
UIC-P Espaces Congrs 📍 Paris, France
• Invited talk at the 38th International Energy Workshop 2019 meeting
 - **Pathways & global sustainability science**
Utrecht University 📍 Utrecht, The Netherlands
• Invited guest lecture at the BSc Global Sustainability Science course 'Global Integration Project GEO2-2417'
 - **Session: The time and speed of the transition and policy instruments to support the transition and local versus global participation**
NTNU 📍 Trondheim, Norway
• Invited talk at the Industry Decarbonization stakeholder workshop during the Energy Transition Week 2019
- 2018-11-29
- **Industry decarbonization by 2050**
Representation of the State of North Rhine-Westphalia to the European Union 📍 Brussels, Belgium
• Poster Presentation REINVENT scenarios at the *Understanding Innovation Dynamics for Low-Carbon Transitions in Resource-Intensive Industries* stakeholder workshop

NOTE: Here follows a list of performed research dissemination activities and further activities relating to gaining feedback from peers and the broader audiences.



(EUCalc Stakeholder Workshop @ Vienna)

In some cases I have been rewarded external funding to disseminate results:

✓ European Commissions & ICF travel funding for IAMC2019

- 2018-11-29
- ***Heterogeneity in the IMAGE model***
PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands
 - Presentation at the IMAGE advisory board meeting
- 2018-07-10
- ***Scenarios for Decarbonising European Industries***
Haus der Industrie
📍 Vienna, Austria
 - Invited talk at the European Calculator Expert Consultation
- 2016-11-22
- ***National energy roadmaps towards 2050 and model input for analysis***
European Environmental Agency (EEA)
📍 Copenhagen, Denmark
 - Roundtable meeting
- 2016-10-13
- ***Making sense of long-term scenarios on energy system change***
BlueCity
📍 Rotterdam, The Netherlands
 - Project meeting of the FP-7 PATHWAYS, TESS and ARTS project
- 2015-11-16
- ***Comparing future patterns of energy system change in 2C scenarios with historically observed rates of change***
Seminaris SeeHotel
📍 Potsdam, Germany
 - Invited talk at the 8th Annual Meeting of the Integrated Assessment Modeling Consortium
- 2015-11-16
- ***Comparing future patterns of energy system change in 2C scenarios with historically observed rates of change***
University of Sussex
📍 Brighton, United Kingdom
 - Invited talk at the International Sustainable Transitions Conference 2015
- 2015-04-21
- ***The feasibility of alternative mitigation scenarios***
The Senate House
📍 London, United Kingdom
 - Invited talk at the WholeSEM, BE4 workshop
- 2014-06-04
- ***The feasibility of technological change - preliminary results***
Xijiao Hotel
📍 Beijing, China
 - FP-7 LIMITS project meeting talk
- 2013-09-27
- ***The potential of lifestyle and lifestyle change in 2 degree scenarios - preliminary results***
IIASA
📍 Laxenburg, Austria
 - FP-7 LIMITS project meeting talk

2013-02-
12

- **A multi-model analysis of post-2020 mitigation efforts of five major economies**

The Royal Netherlands Academy of Arts and Sciences
📍 Amsterdam, The Netherlands

- FP-7 LIMITS project meeting talk



EVENT PLANNING

2019-03-
27

- **Stakeholder workshop Heavy industry in climate change mitigation scenarios**

PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands

- 20 participants, organized on behalf of the H2020 project REINVENT, inviting stakeholders from CEFIC, VNP, World Steel Association, IEA, Fraunhofer-ISI, FfE, Wuppertal Institute

2019-03-
25

- **Project meeting REINVENT**

PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands

- 25 participants, organized on behalf of the H2020 project REINVENT

2018-11-
15

- **PBL Academy Lecture World Energy Outlook 2018**

PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands

- 200 participants, inviting Fatih Birol (IEA) & Dutch Minister of Economic Affairs and Climate Policy Eric Wiebes (Min EZK) to talk

2018-11-
09

- **IMAGE 3.2 advisory board meeting**

PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands

- With Jae Edmonds (PNNL), Bert Metz, Marcel Berk (Dutch Ministry of Economic Affairs and Climate Policy), Keywan Riahi (IIASA), Dolf Gielen (IRENA) and Rob Dellink (OECD) as part of the advisory committee, 16 participants

2018-11-
09

- **Symposium Changes in the interaction between science and policy, focusing on the development of energy and climate sciences and the application of modelling tools**

PBL Netherlands Environmental Assessment Agency
📍 The Hague, The Netherlands

- inviting Jae Edmonds (PNNL), Leen Hordijk, Marcel Berk (Dutch Ministry of Economic Affairs and Climate Policy), Keywan Riahi (IIASA), Dolf Gielen (IRENA) and Rob Dellink (OECD) for a talk, (90 participants) PBL, Den haag

NOTE: I have also been very keen on bringing people and places together, to get some real-world insights on the subjects at hand. The following list elaborates on the platforms that I have helped to create.



(IEA WEO event 2018 @ PBL)

I have organized many of the activities under the banner of:

- ✓ FP7 and H2020 EU projects
- ✓ YES-DC (board 2013-2014)
- ✓ PBL Young (board 2014-2016)
- ✓ PBL Academy (commission 2018-2019)

- 2016-06-10
- **PBL round table *Low-carbon energy scenarios in NW European countries***
 Hotel Karel V  Utrecht, The Netherlands
 - Participants from UK (), Germany, France, Denmark, Belgium, the Netherlands and the European Commission, 21 participants
- 2015-04-01
- **Symposium *The road to Paris <U+0096> Climate Change Policy & Practice***
 Academy Hall  Utrecht, The Netherlands
 - 65 participants, organized on behalf of Young Energy Specialists and Development Cooperation (YES-DC)
- 2015-04-01
- **Symposium *'Successes and failures in the dialogue between science and policy***
 Leeuwenberg church  Utrecht, The Netherlands
 - 120 participants, organized on behalf of PBL Netherlands Environmental Assessment Agency for Leo Meyer
- 2015-01-20
- **Expert Workshop *INNOVATION IN RELATION TO BUILDING ENERGY DEMAND IN IAMS***
 Leeuwenberg church  Utrecht, The Netherlands
 - 60 participants, organized on behalf of the FP-7 project ADVANCE
- 2014-11-15
- **Congress *The new world order - shifting geopolitics***
 Academy Hall  Utrecht, The Netherlands
 - 60 participants, organized on behalf of Young Energy Specialists and Development Cooperation (YES-DC)
- 2013-11-19
- **Symposium *The role of materials in the energy transition***
 Academy Hall  Utrecht, The Netherlands
 - 40 participants, organized on behalf of Young Energy Specialists and Development Cooperation (YES-DC)
- 2012-11-12
- **Project meeting *AMPERE 4th project meeting***
 Pietershof  Utrecht, The Netherlands
 - 50 participants, organized on behalf of the FP-7 project AMPERE
- 2012-09-25
- **Workshop *The feasibility of transitions in 2 degree scenarios***
 Pietershof  Utrecht, The Netherlands
 - 25 participants, organized on behalf of the FP-7 projects RESPONSES/LIMITS

PACKAGE DEVELOPMENT

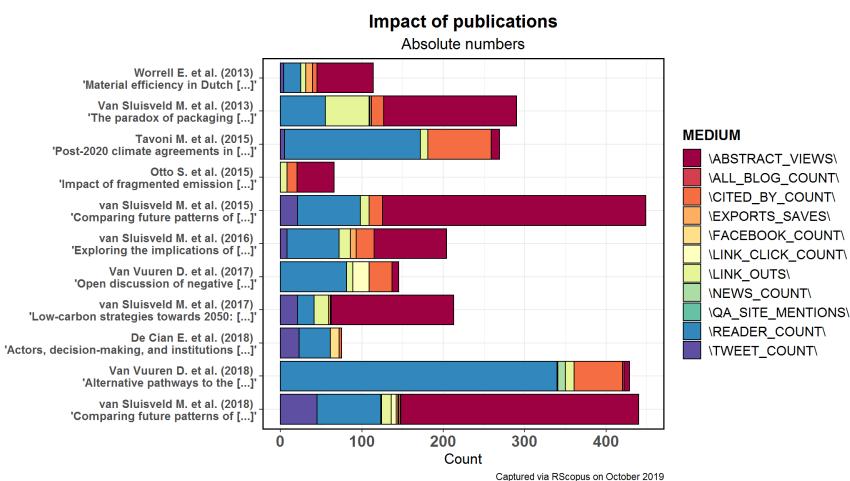


MyM2R is an R package that translates R data tables to M-readable input files (programming language at PBL Netherlands Environmental Assessment Agency)

NOTE: Package development is inevitable with increasing use of the same set of functions!

SCIENCE IMPACT

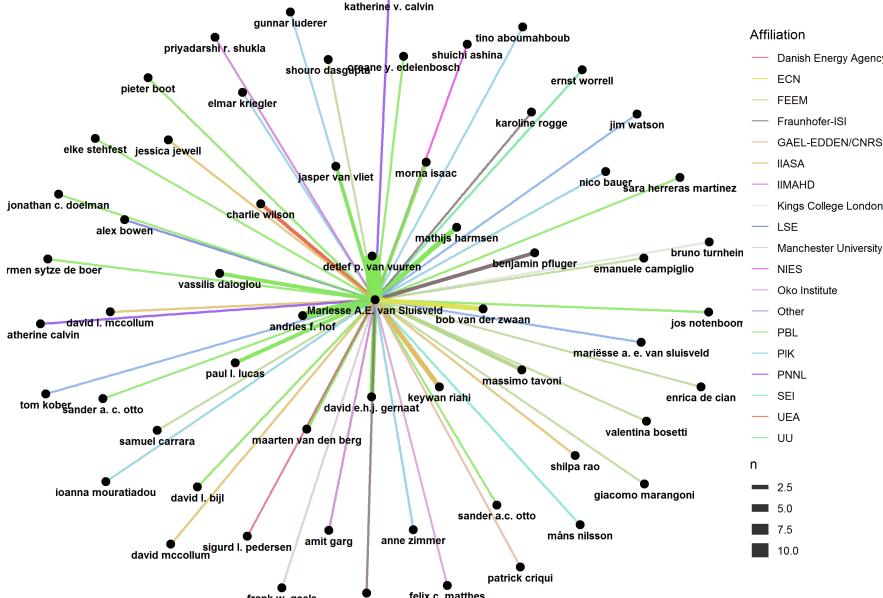
Publications



NOTE: My peer-reviewed articles have gained traction via social media. the model evaluation papers have been most exposed.

My author network

Number of instances of writing a research paper together



NOTE: I have enjoyed collaborating with 19 different kinds of research institutes all over the globe.