PERSONAL INFORMATION

Michael Martin

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ResearchGate: https://www.researchgate.net/profile/Michael_Martin10
Google Scholar: https://scholar.google.com/citations?user=tcmhQY0AAAAJ&hl=sv

Sex Male | Date of birth dd/mm/yyyy | Nationality Swedish and American (USA)

WORK EXPERIENCE

2014-Current — Senior Researcher/Project Leader

IVL-Swedish Environmental Research Institute, Stockholm, Sweden
Division of Life Cycle Analysis and Environmental Management

- Senior Researcher and Research Leader
- Research Topics: Urban Agriculture, Life Cycle Sustainability Assessments, Food Systems, Industrial Symbiosis, Life Cycle Management, Bioenergy, Circular Economy, Sharing Economy
- PhD Supervisor, Elvira Molin-Sustainable Procurement for Sustainable Food Consumption

2019-Current — Affiliated Researcher

KTH Royal Institute of Technology

SEED- Department of Sustainable Development, Environmental Science and Engineering

November 2017-Current — Executive Board Member- Eco-Industrial Development and Industrial Symbiosis

International Society of Industrial Ecology

- Scientific Committee and Executive Board

April 2013- September 2014 — Expert/Researcher/Course Leader

Linköping University, Division of Environmental Technology and Management

- Course Leader/Lecturer/Examiner- Biofuels for Transportation
- Coordinator for Linköping University for the f3-Swedish Knowledge Center for Renewable Transportation Fuels
- Researcher for Biogas Research Center
  - Biofertilizer Valorization and Economic/Environmental Performance Models
- Research on Sustainable Bioenergy and Biomass Systems

August 2008- April 2013 — PhD Candidate/Lecturer/Researcher

Linköping University, Division of Environmental Technology and Management

- Lead Researcher in PhD Project "Synergies for improved environmental performance of first generation biofuels for transportation"
  - Qualitative and Quantitative Studies for Stakeholder Analyses of Industrial Symbiosis Networks
- Course Leader/Lecturer/Examiner- Biofuels for Transportation
- Lecturer for Environmental Systems Analysis and Biogas Courses
  - LCA, MFA and Energy Systems Lectures
- Researcher/Project Manager for Biogas Research Projects

August 2007-August 2008 — Research Assistant

Linköping University, Division of Environmental Technology and Management

- Researcher in Project "Development of Biodiesel Production in Tanzania" for Ageratec AB and the Swedish International Development Cooperation Agency
  - Interviews and Data Collection for assessing potential for waste vegetable oils and oil crops for biodiesel production in Tanzania

August 2006-June 2007

Intern

CREIDD- Research Centre for Environmental Studies and Sustainability (Troyes, France)

- Project to assess the potential for renewable fuels in the city transportation system using life cycle assessment
- Supervision of Bachelor Theses projects

EDUCATION AND TRAINING

January –June 2017

Course: Supervision of PhD Students

Doctoral Supervision

KTH-Royal Institute of Technology, Sweden.

- Supervision and regulatory information for PhD studies at KTH and Sweden

August 2008-April 2013

PhD- Environmental Systems Analysis and Environmental Management

Doctorate

Linköping University, Sweden. Division of Environmental Technology and Management

- Thesis Title: *Industrial Symbiosis in the Biofuel Industry: Quantification of the Environmental Performance and Identification of Synergies.*
- Industrial Symbiosis,
- Life Cycle Assessment,
- Energy Analysis,
- Industrial Ecology
- Method Development

August 2005- August 2007

M.Sc. Sustainable Development and Technology

Master of Science

KTH-Royal Institute of Technology, Sweden

- Sustainable Development,
- Life Cycle Assessment,
- Industrial Ecology,
- Risk Assessment, Environmental Management

August 2000- June 2005

B.Sc. Mechanical Engineering

Bachelor of Science

Michigan Technological University, USA

- Finite Element Analysis, CAD, Mechanics, Vehicle Systems, Sustainable Development
- Internship at TOYOTA USA. Designed and developed Child Safety Restraint Systems for Minivans

Mother tongue(s): English (USA)

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Swedish	C2	C2	C2	C2	C1
	Replace with name of language certificate. Enter level if known.				
French	A2	A2	A2	A1	A1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

PERSONAL SKILLS

Communication skills	Excellent communication skills gained through my experience as lecturer, supervisor, sales associate and courses in pedagogics
Organisational / managerial skills	Excellent project management skills obtained through a large number of interdisciplinary projects and supervision of many thesis projects (both on Master and PhD level)
Job-related skills	Excellent command of life cycle assessment methodologies, standards and programs obtained through PhD and current position (E..g. OpenLCA, SimaPro, Stella Architecht)
Computer skills	▪ good command of Microsoft Office™ tools ▪ good command of LCA software SimaPro, OpenLCA and GaBi ▪ good command of referencing tools e.g. Mendeley, Refworks, Endnote ▪ good command of editing and graphics tools in Adobe Creative Suite
Other skills	▪ Bamboo fly rod building, beer brewing and other fine carpentry
Driving licenses	▪ Swedish Driver's License Class B ▪ American Driver's License (Michigan)

ADDITIONAL INFORMATION

Publications (Articels and Chapters)

- Martin, M., Herlaar, S. (2021) Environmental and social performance of valorizing waste wool for sweater production. Sustainable Production and Consumption 25, 425-438.
- Martin, M., Heiska, M., Björklund, A. (2021) Environmental assessment of a product-service system for renting electric-powered tools. Journal of Cleaner Production 281, 25245.
- Harris, S., Martin, M., Diener, D. (2021) Circularity for circularity's sake? Scoping review of assessment methods for environmental performance in the circular economy. Sustainable Production and Consumption 26, 172-186.
- Martin, M. (2021) Industrial symbiosis networks: Application of circular economy for resource efficiency. Handbook of the Circular Economy edited by Brandão M, Lazarevic D, Finnveden G., 2020, Edward Elgar Publishing Ltd.
- Viganò E. et al. (2020) The LCA Modelling of Chemical Companies in the Industrial Symbiosis Perspective: Allocation Approaches and Regulatory Framework. In: Maranghi S., Brondi C. (eds) Life Cycle Assessment in the Chemical Product Chain. Springer, Cham. https://doi.org/10.1007/978-3-030-34424-5_4
- Martin, M. et al. (2019) Exploring the environmental performance of urban symbiosis for vertical hydroponic farming. Sustainability (In Press).
- Martin, M. (2019) Evaluating the environmental performance of producing soil and surfaces through industrial symbiosis. Journal of Industrial Ecology. Online, In Press.
- Martin, M. and Molin, E. (2019) Environmental Assessment of an Urban Vertical Hydroponic Farming System in Sweden. Sustainability, 11 (15), 1-19.
- Martin, M.; Lazarevic, D.; Gullström, C. (2019) Assessing the Environmental Potential of Collaborative Consumption: Peer-to-Peer Product Sharing in Hammarby Sjöstad, Sweden. Sustainability, 11, 190.
- Martin, M. and Harris, S. (2018). Prospecting the sustainability implications of an emerging industrial symbiosis network. Resources, Conservation & Recycling 138, pages 246–256.
- Laurenti, R., Martin, M., Stenmarck, Å. (2018) Developing Adequate Communication of Waste Footprints of Products for a Circular Economy—A Stakeholder Consultation. Resources7(4), 78.
- Lazarevic, D. and Martin, M. (2018) Life cycle assessment calculative practices in the Swedish biofuel sector: Governing biofuel sustainability by standards and numbers. Business Strategy and the Environment, 1-11. Akhtar, N., Saqib, Z., Irfan, M. K., Martin, M., Atif, S. B., Zaman, M. H. (2019) A bibliometric analysis of contemporary research regarding industrial symbiosis: A path towards urban environmental resilience. Applied Ecology and Environmental Research 17(1):159-1221
- Martin, M., Røyne, F., Ekvall, T. and Moberg, Å. (2018). Life Cycle Sustainability Evaluations of Bio-based Value Chains: Reviewing the indicators from a Swedish Perspective. Sustainability 10(2), 547.
- Martin, M. and Brandao, M. (2017) Evaluating the Environmental Consequences of Swedish Food Consumption and Dietary Choices. Accepted. Sustainability, 9 (12), 2227
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Publications (cont'd)

- Martin, M. et al (2017) Assessing the aggregated environmental benefits from by-product and utility synergies in the Swedish biofuel industry. Biofuels, 1-16.
- Martin, M. Oliveira, F., Larsson,, M, Rydberg, T. (2017) Reviewing the environmental implications of increased consumption and trade of biofuels for transportation in Sweden Biofuels,In press, Pages 1-15. Taylor and Francis..
- Brandao, M., Martin, M., Cowie, A., Hamelin, L., Zamagni, A. (2017) Consequential Life Cycle Assessment: What, How, and Why? Reference Module in Earth Systems and Environmental Sciences. Elsevier, December 2017.
- Lazarevic, D. and Martin, M (2016) Life cycle assessments, carbon footprints and carbon visions: Analysing environmental systems analyses of transportation biofuels in Sweden Journal of Cleaner Production 137 (20) 249–257.
- Martin, M. and Danielsson, L. (2016) Environmental Implications of Dynamic Policies on Food Consumption and Waste Handling in the European Union. Sustainability 8 (3), (1-15).
- Martin, M. (2015) Unlocking the Potential of Biogas Production in Sweden- The Gap Between Potential Studies and Producer Perspectives. Biofuel 6(5-6), 233-240.
- Martin, M. (2015) Quantifying the Environmental Performance of an Industrial Symbiosis Network of Biofuel Producers. Journal of Cleaner Production 102 (1), 202-212.
- Martin, M., Svensson, N. Eklund, M. (2013). Who gets the benefits? An Approach to Assess the Environmental Performance of Industrial Symbiosis. Journal of Cleaner Production 98(1), 263-271.
- Martin, M., Svensson, N., Fonseca, J., Eklund, M. (2014) Quantifying the Environmental Performance of Integrated Bioethanol and Biogas Production. Renewable Energy, 61(0), 109-116.
- Martin, M., Svensson, N., Eklund, E. & Fonseca, J. (2012) Production synergies in the current biofuel industry: Opportunities for development. Biofuels 3(5), 545–554
- Martin, M and Eklund, M. (2011) Improving the Environmental Performance of Biofuels with Industrial Symbiosis. Biomass and Bioenergy 3(5), 1747-1755.
- Martin, M., Mwakaje, A.G., Eklund, M. (2009) Biofuel development initiatives in Tanzania: development activities, scales of production and conditions for implementation and utilization. Journal of Cleaner Production 17 (S1), S69-S79, Special Issue.

Projects

- Expectations and Implications of Circularity in Soceity.
  Co-Lead, *Funded by Formas-Early Career Researchers (2022-2025)*
- Urban farming for resilient and sustainable food production in urban areas
  Project Leader, *Funded by Vinnova Innovations for Sustainable Society, (2020-2022)*
- Assessing and Improving the Sustainability of Urban Vertical farming Systems
- Project Leader, *Funded by Formas-Increased mobility between academy and practice, (2020-2021)*
- Influencing Sustainable Food Consumption through the use of Sustainable Procurement Criteria
  Project Leader, *Formas-Future Research Leaders, (2018-2021)*
- Gotland Industrial Symbiosis Park to Support a Circular Economy
  Co-Lead, *Tillväxt Gotland and Stiftelsen IVL. (2020-2021)*
- Improving urban food systems through product service-system and sharing technology
  Co-Lead. *Viable Cities/Sharing Cities Sweden. (2019-2020)*
- LinCS-Linking circularity metrics at product and society level. *Funded by Naturvårdsverket (Swedish Environmental Protection Agency)*
- Vertikal odling som nyttjar stadens resursflöden.
- *Co-lead Funded by Naturvårdsverket (Swedish. Environmental Protection Agency)*
- Influencing Sustainable Food Consumption through the use of Sustainable Procurement Criteria.
  Project Leader. *Funded by FORMAS, Future Research Leaders*
- Exploring the use of circular public procurement to promote a circular economy
  Co-Lead*. Funded by FORMAS, Open Call*
- Reviewing a baseline for sharing services in Hammarby Sjöstad
  Project Leader. *Funded by Vinnova Sharing Cities Sweden*
- BioEk2.0-Valorising materials in the biobased economy.
  WP Leader, Funded by Vinnova, BioInnovation SIP
- Resource efficiency, material and energy assessment of leafy greens grown using vertical hydroponics vs. traditional greenhouses.
  Project Leader. Funded by Grön BoSTAD.

Projects (Cont'd)

- Reviewing quantification methodology and metrics of circular economy studies.
  Project Leader. *Funded by Stiftelsen IVL*
- Reviewing Swedish Food Choices and Environmental Consequences.
  Project Leader. *Funded by Stiftelsen IVL*
- Facilitating and Reviewing the Environmental and Socio-Economic Benefits of an Emerging Industrial Symbiosis Network in the Swedish Municipality of Sotenäs
  Funded by Re:Source Strategic Innovation Program
- Industrial symbiosis: enabling innovative thinking and new business development
  Funded by Re:Source-Strategic Innovation Program
- Strategic Analysis of the Potential of Industrial Symbiosis in Sweden
  Funded by Re:Source-Strategic Innovation Program
- The Implications of Life Cycle Assessment in Biofuel Policy: Assessing the Influence of Life Cycle Assessment on Sweden's Biofuel Industry
  Project Leader *Funded by Göteborg Energisforskningsstiftelse*
- Robust LCA *Funded by Trafikverket (Swedish Transportation Authority)*
- Life Cycle Sustainability Assessments of Biomass Value Chains
  Project Leader *Funded by FORMAS*
- Grön affärsmöjligheter genom bättre resursutnyttjande. Ett regionprojekt inom cirkulär industri.
  Funded by Örebros Region.
- Environmental and Socio-Economic Benefits of Biofuel Production in Sweden
  Project Leader *Funded by F3-The Swedish Knowledge Centre for Renewable Transportation Fuels*
- Climate Benefits of Material Recycling in Sweden
  LCA Leader *Funded by Naturvårdsverket*
- Environmental Implications of Dietary Choices in Sweden
  Project Leader *Funded by ÅForsk*
- Dynamix- Decoupling growth from resource use and its environmental impacts LCA and Modelling
  Project Leader *Funded by European Union's Seventh Framework Programme*
- Accumulated Impacts from Increased Biofuel Consumption in Sweden
- Project Leader *Funded by F3-The Swedish Knowledge Centre for Renewable Transportation Fuels*
- Carbon Vision? Reviewing Environmental Systems Analyses of Biofuel Production in Sweden.
  Project Leader *Funded by F3-The Swedish Knowledge Centre for Renewable Transportation Fuels*
- Mapping of North American Biofuel Production, Policies, Research and Development
  Project Leader *Funded by F3-The Swedish Knowledge Centre for Renewable Transportation Fuels*
- Cooperation for Improved Economic and Environmental Performance of Biogas Production, 2012-2014 Biogas Research Center, Linköping University
  Modelling Leader *Funded by Swedish Energy Agency, Linköping University and other biogas actors*
- Valorization of by-products and raw material inputs in the biofuel industry, 2013-2014.
  Project Leader, *Funded by F3-The Swedish Knowledge Centre for Renewable Transportation Fuels*
- Synergies for improved environmental performance of first generation biofuels for transportation, 2008-2012. Environmental Technology and Management, Linköping University
  PhD Candidate/Main Responsible *Funded by Formas*
- Biofuel Development in Tanzania, 2007-2008
- Project Leader *Funded by Ageratec AB and Sida*

2021-Current Executive Advisory Board Member, Stadsodla för Stockholm

2019-Current Executive Board Member, International Society for Industrial Symbiosis, Section for Industrial Symbiosis and Eco-Industrial Development.

2019-Current External Evaluator: European Research Council, MITACS Candian Research Excellerator

2018-Current FORMAS review panel member
2018-2021: Open call, General governance, implementation and monitoring
2020: Realising the global sustainable development goals
2019: Increased collaboration and utilisation of research in the food system

2020 Opponent Licentiate Defense Thesis: Daniel Jonsson, Gävle University. Systems analysis of new district heating services and utilization of residual and return heating.

2019 Organizer and Speaker at Symposium "Indusrial Symbiosis to promote the Circular Economy", Minsk, Belarus, December 2019.

2018-2021 Research Coodinator, f3-Swedish Knowledge Center for Renewable Transport Fuels

2019-2021

- Editor- Rethinking Food Systems: Circular Economy and Urban Agriculture. Fronteirs in Sustainability
- Co—Editor “Industrial Symbiosis and Sustainability”, “A Sustainable Revolution: Let's Go Sustainable to Get our Globe Cleaner,” and “
- Co-Editor: Promoting More Sustainable Practices through Industrial Ecology and Industrial Ecosystems” (MDPI Group, Sustainability)

Memberships

- ISIE-International Society for Industrial Ecology
- IS4CE-International Society for Circular Economy
- AVF-Association of Vertical Farming
- FSLCI-Forum for Sustainability through Life Cycle Innovation
- Stadsodla Stockholm
- Swedish Life Cycle Network