

# CARINE LAUSSELET (GROSSRIEDER)

Østre Berg 8  
N-7051 Trondheim  
+47 46 78 92 64  
carine.lausselet@ntnu.no

22.10.1982  
Married, 3 children (born 2007, 2009 and 2013)  
Swiss



## EDUCATION

- 2011 **Master of Science (MSc) in Industrial Ecology**  
Norwegian University of Science and Technology (NTNU)
- 2007 **Bachelor of Science (BSc) in Environmental Sciences and Engineering**  
Ecole Polytechnique Fédérale de Lausanne (EPFL)

## PROFESSIONAL EXPERIENCE

- 2017- **NTNU**, Department of Energy and Process Engineering, Industrial Ecology Programme, PhD candidate  
**"LCA methods for zero emission neighborhood concepts in smart cities"**  
  
My PhD is part of the Research Centre on Zero Emission Neighbourhoods in Smart Cities (fmezen.no). FME ZEN will enable the transition to a low carbon society by developing sustainable neighbourhoods with zero greenhouse gas emissions. The Centre will speed up the decarbonization of the building stock (existing and new), use more renewable energy sources and create positive synergies among the building stock, energy, ICT and mobility systems, and citizens.  
My role in the Centre is to develop and apply Life Cycle Assessment (LCA) methods to support the evaluation of zero emission neighborhood design concepts with respect to greenhouse gas emissions and potential environmental impacts.
- 2011-2017 **NTNU**, Department of Energy and Process Engineering, Industrial Ecology Programme, Researcher and external evaluator  
  
Bioenergy Innovation Centre (CenBio), 2014-2016  
CenBio was one of Norway's Centres for Environment-friendly Energy Research (FME) co-funded by the Research Council of Norway. CenBio addresses the entire value chains of virgin biomass and biodegradable waste fractions, including their production, harvesting and transportation, their conversion to heat, power and biogas, and the handling and upgrade of residues to valuable products.  
My focus was on the integration of a wide array of expertise and knowledge matured within CenBio into a holistic environmental assessment of bioenergy value chains. I had a special focus on the waste-to-energy and biogas value chains.  
  
Ecoinvent, 2012  
Preparation of life cycle inventories according to the stringent requirements of the Ecoinvent Centre  
  
External evaluator, 2011-  
For the master degree level course TEP4223-Life Cycle Assessment
- 2011-2014 **MISA AS**, Advisor  
  
I worked as an advisor on different types of projects on holistic environmental assessments both with LCA and environmentally expanded input-output methodologies. The following projects can be mentioned:
- Development of climate accounts for Green Flag schools in Trondheim, Norway
  - LCA of various transport scenarios for high-speed rail in Norway

## PUBLICATIONS

- 2020 Lausselet, C., Ellingsen, L. A. W., Strømman, A. H., Brattebø, H., A life-cycle assessment model for zero emission neighborhoods, in press in the Journal of Industrial Ecology. 24: 500-516  
Resch, E., Lausselet, C., Brattebø, H., Andresen, I., An Analytical Method for Evaluating and Visualizing Embodied Carbon Emissions of Buildings, in a review process in the Journal of Building and Environment. 168  
Lausselet, C., J. P. F. Urrego, E. Resch, and H. Brattebø. 2020b. Temporal analysis of the material flows and embodied greenhouse gas emissions of a neighborhood building stock. Journal of Industrial Ecology.
- 2019 Lausselet, C., Borgnes, V., Brattebø, H., LCA modelling for Zero Emission Neighbourhoods in early stage planning, Building and Environment 149: 379-389.  
Skaar, C., Bergsdal, H., Resch, E., Lausselet, C., Brattebø, H., User oriented LCA database for inventory of ZEN projects, ZEN Mem 17, NTNU/SINTEF  
Backe, S., Sørensen, Å. L., Pinel, D., Clauß, J., Lausselet, C., & Woods, R., Consequences of local energy supply in Norway – A case study on the ZEN pilot project Campus Evenstad, ZEN report 17, NTNU/SINTEF  
Lausselet, C., Borgnes V., Ager-Wick Ellingsen, L., Hammer Strømman, A. & Brattebø H., Life-cycle assessment methodology to assess zero emission neighborhood concept, ZEN Report 12, NTNU/SINTEF
- 2018 Arvesen, A., Cherubini, F., del Alamo Serrano, G., Astrup, R., Becidan, M., Belbo, H., Goile, F., Grytli, T., Guest, G., Lausselet, C., Rørstad, P. K., Rydså, L., Seljeskog, M., Skreiberg, Ø., Vezhapparambu, S., Strømman, A. H., Cooling aerosols and changes in albedo counteract warming from CO2 and black carbon from forest bioenergy in Norway, Scientific Reports 8(1): 3299  
Ivanova, D., Vita, G., Wood, R., Lausselet, C., Dumitru, A., Krause, K., Macsinga, I., Hertwich, E., Carbon mitigation in domains of high consumer lock-in, Global Environmental Change 52: 117-130  
Sandstad, J. N., Sandberg, N. H., Nord, N., Vestrum, M. I., Lausselet, C., Woszczek, A., Rønneseth, Ø, Brattebø, H., Neighbourhood Building Stock Model for Long-Term Dynamic Analyses of Energy Demand and GHG Emissions - General model description and case studies, ZEN REPORT No. 2 – 2018, NTNU/SINTEF
- 2017 Lausselet, C., Cherubini, F., Oreggioni, G.D., del Alamo G., Becidan, Hu, X., Rørstad, P.K., M., Strømman, A.H., Norwegian Waste-to-Energy: climate change, circular economy and carbon capture and storage, Resources, Conservation & Recycling 126:50-61  
Oreggioni, G.D., Singh, B., Cherubini, F., Guest, G., Lausselet, C., Luberti, M., Ahn, H., Strømman, A.H., Environmental assessment of biomass gasification combined heat and power plants with absorptive and adsorptive carbon capture units in Norway, International Journal of Greenhouse Gas Control, vol. 57, pp. 162-172
- 2016 Lausselet, C., Cherubini, F., del Alamo G., Becidan, M., Strømman, A.H., Life-cycle assessment of a Waste-to-Energy plant in central Norway: Current situation and effects of changes in waste fraction composition, Waste Management, vol. 58, pp. 191-201  
Iordan, C., Lausselet, C., and Cherubini, F., Life-cycle assessment of a biogas power plant with application of different climate metrics and inclusion of near-term climate forcers, Journal of Environmental Management, vol. 184, pp. 517-527
- 2013 Grossrieder, C., Larsen H. N., Solli C., Hung, C., Siversten, R.-I., Brataas, J., Carbon footprint of Green Flag schools in Trondheim, Norway (in Norwegian). MiSA report 11/2013  
Larsen, H. N., Grossrieder, C., Solli, C., Hung, C., Siversten, R.-I., Brataas, J., Calculating the Carbon Footprints of Eco-School. Life Cycle Conference (LCM). Gothenburg, Sweden.  
Fufa, S. M., Jelle, B. P., Bohne, R. A., and Grossrieder, C., LCA of Nano-coated Wooden Claddings Utilizing Accelerated Ageing Test Results, 7th Nordic Conference on Construction Economics and Organization. Trondheim, Norway, 12-14 June 2013.
- 2012 Grossrieder, C., Solli C., End-of-life scenarios for Ragascos gas cylinder .MiSA report 10/2012  
Bergsdal H., Pettersen J., Solli C., Hung C., Grossrieder, C., Hammervold J., Environmental analysis, Climate: Norwegian High Speed Railway Project, Phase 3.
- 2011 Hammervold J., Grossrieder, C., E6 Vinstra-Sjoa; Life Cycle Assessment (LCA) of 3 bridge alternatives. MiSA report 17/2011.  
Grossrieder, C. and Pettersen J., Environmental properties and scenarios for future rail systems: infrastructure and operation of high-speed rail in Norway. Life Cycle Conference. Berlin, Germany

## PERSONAL QUALIFICATIONS

|   |   |
|---|---|
| <b>MOTHER TONGUE</b>                              | French  |
| <b>OTHER LANGUAGES</b><br>(spoken, written, read) | English: Fluent<br>Norwegian: Fluent<br>German: Very good<br>Spanish: Good  |
| <b>COMPUTER SKILLS</b>                            | General: Word, Excel, Powerpoint<br>Programming: Matlab, Python<br>LCA: SimaPro, Arda<br>GIS: ArcGIS<br>Database: SQL   |
| <b>VOLUNTARY COMMITMENTS</b>                      | Freidig football, 2014-, Coach for children<br>Children's Film Club in Trondheim, 2013-, Board member<br>Trondheim Ski Club, 2013-, Instructor for the children's ski courses<br>Swiss Alpine Club, 2002-2007, Active instructor in winter and summer and member of the board of the Youth department |
| <b>INTERESTS</b>                                  | Family, friends, outdoor activities, culture, travelling  |