



Internships 2018-2020 energy transition in industry

Open to masters students from:

Utrecht University, Copernicus Institute of Sustainable Development, Faculty of Geosciences
TU Delft, Faculty of Technology, Policy and Management and Radboud University, Faculty of Science.
Other University master tracks can be considered on request.



Would you like to contribute to solving the climate change challenge? In this project, you play a key role in resolving one of the hardest problems that the Netherlands is facing in achieving its Paris Agreement targets: enabling a sustainable transition to zero emissions of its energy-intensive industry by 2050.

MIDDEN is the Manufacturing Industry Decarbonisation Data Exchange Network, developed and coordinated by PBL and ECN part of TNO. MIDDEN will be the knowledge exchange platform for the energy transition of the Dutch industry. It will be used to facilitate the 2019 Energy and Climate Agreement that is now implemented by the Dutch government with system integration studies and the development of industry roadmaps. MIDDEN will go deeper than other knowledge sources, and will be acknowledged as the shared source for industry, government, local authorities, technology suppliers and consultants. Dutch industries actively contribute to and benefit from MIDDEN.

For MIDDEN, PBL and ECN part of TNO are teaming up with Utrecht University, TU Delft and Radboud University to create a robust knowledge base for implementing the Paris Agreement in Dutch industry.

You will be intensively trained to analyse, derive and construct future decarbonisation pathways for specific industries on plant level. You will directly consult, under guidance, both companies and experts from TNO, PBL and universities on options for decarbonisation. Your scope will include process innovation, electrification, materials optimisation and circularity, carbon capture and utilisation, renewable energy and new energy infrastructures.

You will work in a team of MIDDEN students and researchers, but individually contribute to MIDDEN by examining at least two different industrial processes. The fixed duration of the MIDDEN internship



is six months. During your internship you cooperate closely with supervisors from your university (post doc level) and TNO/PBL industrial experts on a 80% (you) 20% (cooperation and guidance) basis. Moreover you will cooperate and exchange experiences with other MIDDEN interns and share training and evaluation sessions.

After successful completion of the process analyses you will receive a certificate of “MIDDEN-expert” and two years of access to MIDDEN-events.

What we require is a background in process technology, chemistry or physics and an eager interest to both dive in the specifics and keep overview to select the information that matters. Mastering the English language and preferably also Dutch, communication skills and perseverance. The internship is suitable for a master thesis or master graduation research project, as it will have a strong research component.

You will be based at PBL (The Hague) or ECN>TNO (Amsterdam), but may have to travel across the Netherlands for data collection. The general internship remuneration and conditions of ECN and PBL apply to the internship. You will possibly have to sign a confidentiality agreement. Anticipated starting date for new internships is January/February 2020, but later starting dates can be negotiated.

Contact

We would like to hear about your interest in this project. Please send your questions, CV and application to Ton van Dril (ECN part of TNO; ton.vandril@tno.nl) and Klara Schure (PBL, klara.schure@pbl.nl)

Further questions on how MIDDEN can be included in your masters curriculum can be asked to:

- Utrecht University: Ernst Worrell – e.worrell@uu.nl
- TU Delft: Andrea Ramirez Ramirez - C.A.RamirezRamirez@tudelft.nl
- Radboud University: Heleen de Coninck – h.deconinck@science.ru.nl