



UNIVERSITEIT VAN AMSTERDAM

Midterm Report

**ENLENS: ENERGY TRANSITION THROUGH THE LENS OF
SUSTAINABLE DEVELOPMENT GOALS**





@ENLENS September 2024

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Editors: Bob van der Zwaan and Drielli Peyerl.

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Foreword

The urgent need to rapidly reduce carbon dioxide emissions to avoid uncontrollable climate change and fulfil the requirements of the Paris Agreement shapes decisions on how to define, design, and implement the energy transition in the Netherlands. The energy transition is closely intertwined with essentially all Sustainable Developments Goals (SDGs), but its wider effects are seldom taken into account or studied in detail. The aim of this Research Priority Area (RPA) at the University of Amsterdam, called 'Energy transition through the lens of Sustainable Development Goals' (ENLENS), is to stimulate and initiate interdisciplinary research that generates new knowledge on the ways in which national and local energy transition decisions produce externalities elsewhere from an economic, social, environmental, ethical, and political perspective, while also advancing the achievement of the SDGs. To date, 13 ENLENS projects have assessed how national and international energy transition developments may, or in some respects may not necessarily, contribute to achieving a more sustainable society, by researching both their positive and negative impacts on essentially all 17 SDGs. The present midterm report outlines the key achievements of ENLENS over the last two years and a half years.

We hope you enjoy reading it!



Bob van der Zwaan and Drielli Peyeri
(Editors of the Midterm Report - ENLENS - 2024)

Introduction

ENLENS comprises over 30 actively engaged researchers involved in 13 ongoing projects. The methods employed span across five different faculties, jointly used to study the energy transition in alignment with the SDGs.

In a period of two years and a half years, ENLENS has established a network of more than 620 researchers across the UvA who are interested in the achievements and activities promoted by ENLENS. These projects have addressed the national and regional energy transition in the Netherlands and Europe, while also extending their reach to countries in South America and Africa, thereby transcending geographical borders as intended from the start of this RPA at the beginning of 2022. These projects have contributed to a better understanding of how to advance in achieving the 17 SDGs.

The ENLENS activities include a bimonthly newsletter on relevant activities of the projects, own website, educational activities, video series and recent publications. Besides that, the Future of Energy (FoE) seminar, organised by ENLENS and in partnership with the Institute for Advanced Study (IAS), successfully gathers researchers from all UvA faculties with an interest in energy transition, sustainable development and climate change.

The ENLENS team is also developing new methodologies that can be applied by UvA researchers to measure the tangible impacts of their research in relation to the energy transition and SDGs. The development of methodologies to measure the progress of, and impacts on, SDGs is one of the ongoing global challenges. ENLENS is also actively pursuing to provide didactic material for UvA courses, based on integrating energy transition with SDGs, accessible for all UvA researchers. The upcoming phases of this RPA are focused on further expanding the network and strengthening connections with other national and international centers pursuing similar strategies as ENLENS.

ENLENS

Energy transition through the lens of Sustainable Development Goals (ENLENS) is one of the interfaculty Research Priority Areas of the University of Amsterdam. It unites researchers working on the economic, environmental, technological, social, political, and business aspects of the energy system, the energy transition, and all SDGs.



The aim of this RPA is to stimulate and initiate interdisciplinary cross-faculty research that maps the energy transition in the Netherlands and Europe against the SDGs beyond Dutch and European borders. ENLENS provides seed money for joint cross-faculty initiatives to generate new opportunities for researchers to apply their expertise in an interdisciplinary approach, and develop joint proposals for external research funding.



The ENLENS team is actively promoting research collaboration across faculties and encouraging researchers to submit new proposals that contribute to the analysis of the energy transition and 17 SDGs, as shown in this report. The ENLENS programme continues to seek new proposals that encompass all aspects of the energy transition and SDGs beyond those already being investigated, with the goal to increase the number of projects.

ENLENS Team



Bob van der Zwaan

Faculty of Science (FNWI)
(Scientific Director of ENLENS)



Ans Kolk

Faculty of Economics and Business (FEB)
(Board of ENLENS)



Barbara Hogenboom

Faculty of Humanities (FGW)
(Board of ENLENS)



Coya Tromp

Institute for Interdisciplinary Studies (IIS)
and Faculty of Science (FNWI)
(Philosopher of Science)



Drielli Peyerl

Faculty of Science (FNWI)
(Postdoc)



John Grin

Faculty of Social and Behavioural Sciences
(FMG)
(Board of ENLENS)

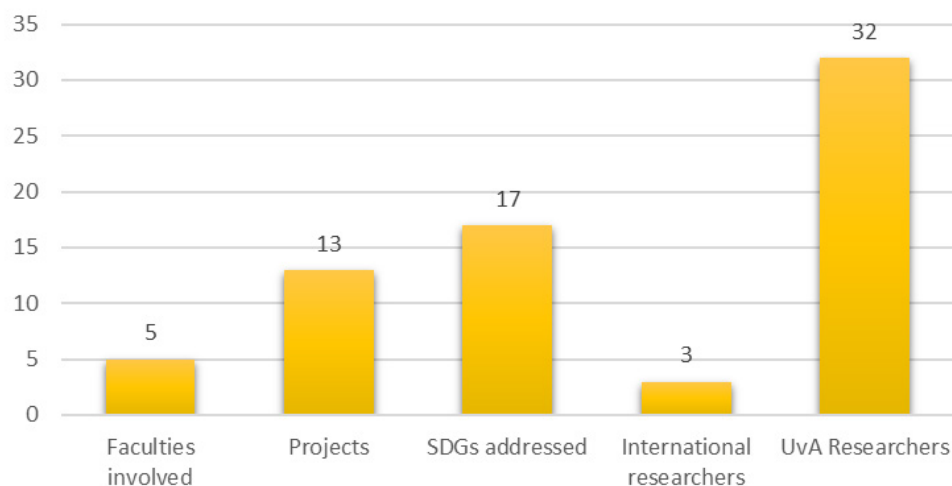


Marija Bartl

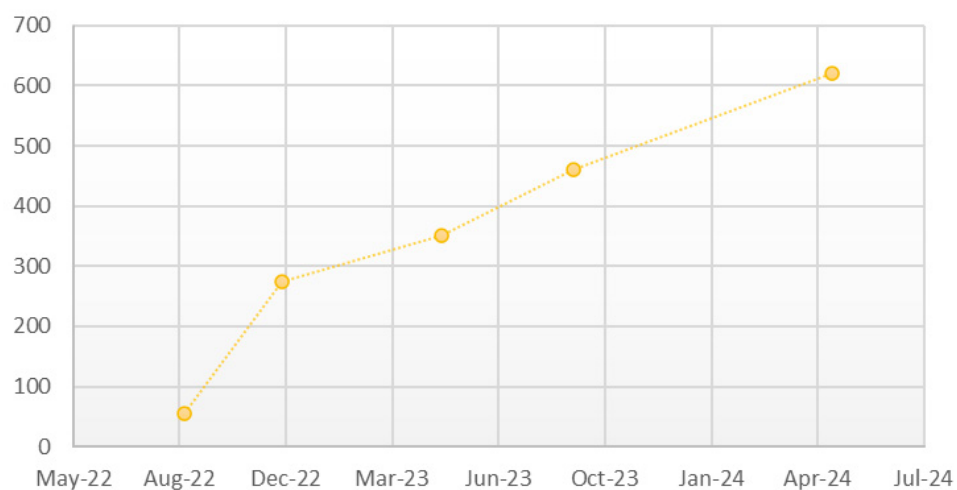
Faculty of Law (FdR)
(Board of ENLENS)

ENLENS in numbers

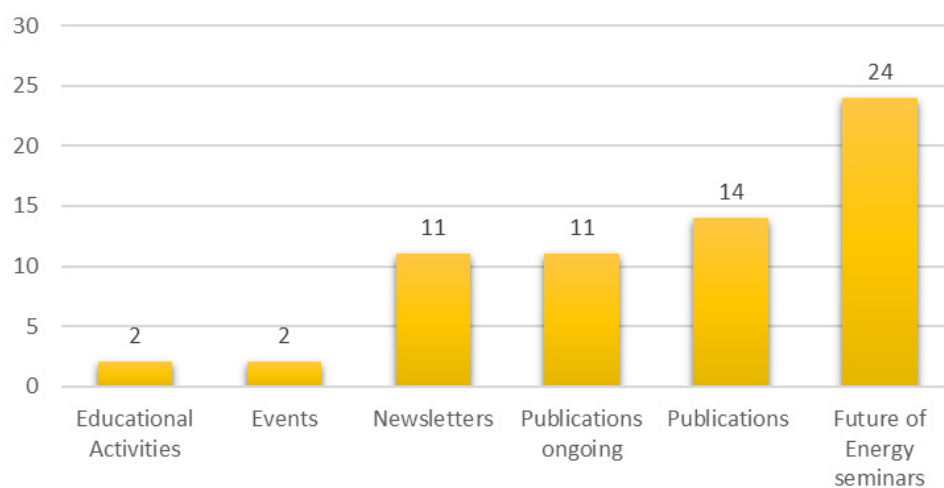
ENLENS IN NUMBERS



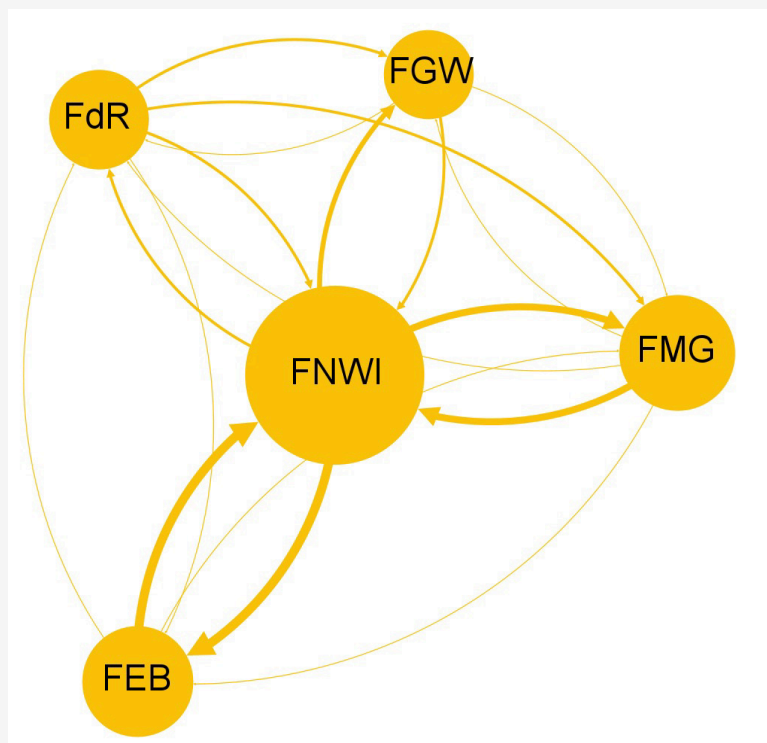
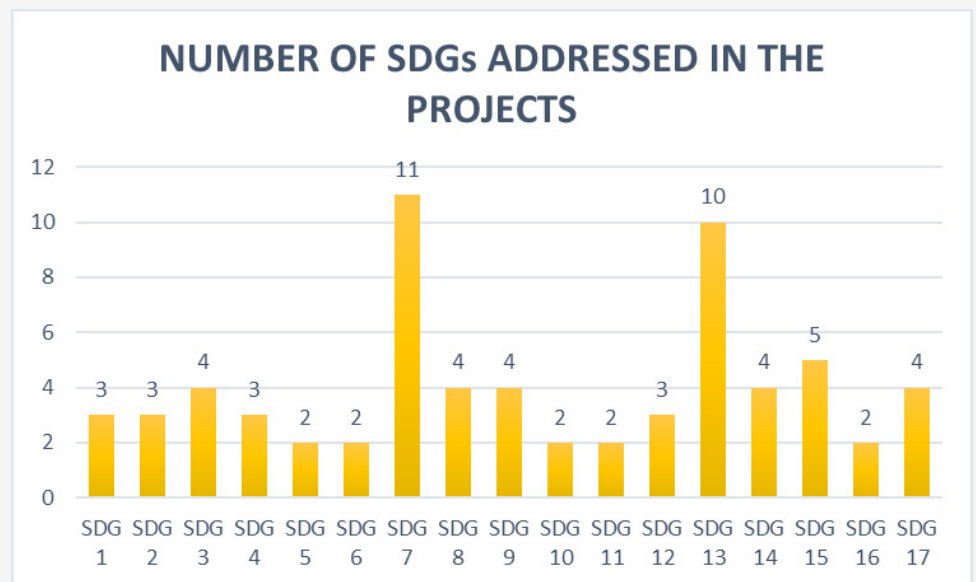
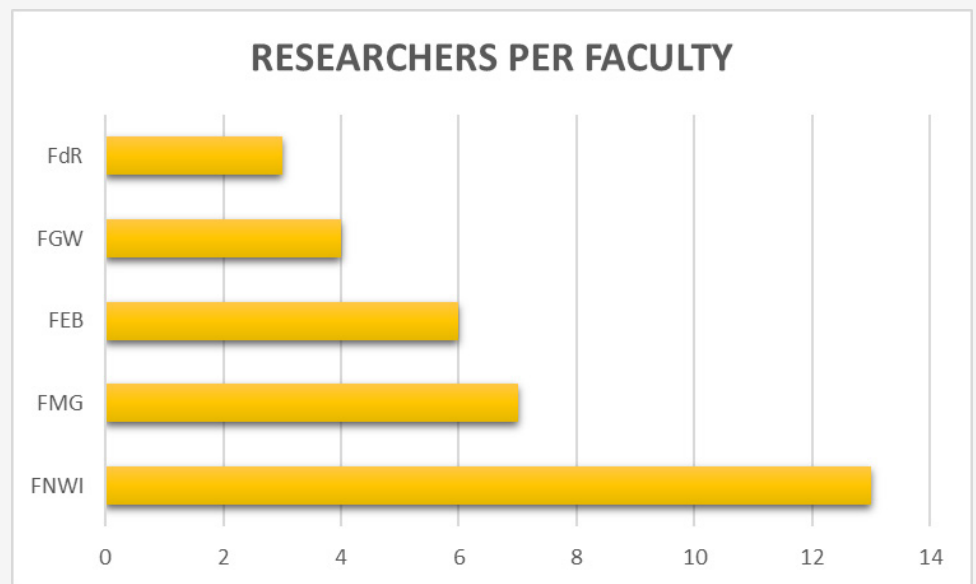
ENLENS MAILING LIST



ENLENS ACTIVITIES



ENLENS in numbers



Hydrogen across borders?

Marija Bartl (FdR)
Ans Kolk (FEB)
Bob van der Zwaan (FNWI)

We study how renewable hydrogen can be made of use for the energy transition in the Netherlands/Europe if imported from Northern Africa, and particularly which trade-offs and synergies are at play, framed in terms of the SDGs. This project aims to do so, building on our joint background in international political economy, experience in sustainable energy transition and transformative change research, and distinct disciplinary expertise in technology, business, law and governance. This project contributes to the SDG 1 (No poverty), SDG 2 (Zero Hungry), SDG 3 (Good healthy and well-being), SDG 4 (Quality education), SDG 7 (Affordable and Clean energy), SDG 13 (Climate action) and SDG 17 (Partnership for the goals).

Mining for energy transition: Understanding drivers of (un)sustainable mineral extraction

Barbara Hogenboom (FGw)
A.C. Seijmonsbergen (FNWI)

This project combines a qualitative analysis of societal drivers of (un)sustainable mining with a quantitative analysis of the resulting environmental effects and spatio-temporal changes in land use and land cover (LULC). By sharing the setup, methods and insights with local stakeholders and informing researchers and policy-makers in Chile, the mining country, and the Netherlands, our project supports efforts to limit negative external effects of the energy transition. This project contributes to the SDG 7 (Affordable and Clean energy), SDG 8 (Decent work and economic growth), SDG 10 (Reduced Inequality), SDG 13 (Climate action); SDG 14 (Life below water); SDG 15 (Life on land) and SDG 16 (Peace, Justice and Strong institutions).

How much biomass for the Dutch heat and electricity sector – and which, from where?

Elisabeth H. Krueger (FNWI-IBED)
John Grin (FMG/AISSR)

The fuel-mix of a 'net zero CO₂, no natural-gas' energy sector is highly uncertain. Especially choices on biomass, currently a key non-fossil resource, will depend on constraints of space and resources, technological innovation, and on socio-political dynamics: As most biomass is imported, contestation regards concerns on cross-boundary global trade networks, and implications for food security and aquatic and terrestrial biodiversity. Current debates are confusing, as they do not distinguish between biomass flows and origins. We will contribute to a more informed debate by focusing on flows linking specific end uses and potential sources for these end uses. This project contributes to the SDG 2 (Zero hunger), SDG 14 (Life below water) and SDG 15 (Life on land).

Transitional Waters: The Port of Amsterdam and the Energy Transition

Jeff Diamanti (FGw)
Joyeeta Gupta (FMG)

To address the Paris Agreement on Climate Change and meet the SDGs, we address the role of the Port of Amsterdam (PoA). The PoA is a logistical and infrastructural space that is shaping the energy transition in the Netherlands and EU: it is the largest gasoline terminal in Europe, while the wind-capacity offshore of IJmuiden is projected to be the largest globally by 2030 (Offshore Energy Wind Energy Roadmap 2030). We undertake a situated case study for the larger ambitions of ENLENS, rendering tangible and legible the flows of power and value that influence transition in the context of the estuarine ecologies and offshore infrastructures of an imagined carbon-neutral horizon. This project contributes to the SDG 4 (Quality education) and SDG 7 (Affordable and Clean energy).

The Cost of Large-Scale Transitions: Introducing Effective Targeted Incentives

Vítor V. Vasconcelos (FNWI)

Shaul Shalvi (FEB)

Sara Constantino (Northeastern University, USA)

The energy transition in the Netherlands (and Europe) is a crucial step towards achieving a more sustainable and environmentally responsible future. This research on targeted interventions can play a vital role in facilitating this transition by identifying effective strategies for promoting the adoption of renewable energy technologies. By focusing on geographical trade-offs, synergies, and optimal solutions, the study aims to maximize the positive impact of sustainable energy adoption across diverse regions and communities, thereby contributing to several Sustainable Development Goals (SDGs). This project contributes to the SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action).

Optimizing Energy Efficiency and Policy for Green Hydrogen Production and Market Adoption

Amanda Garcia (FNWI)

Panikos Georgallis (FEB)

The scientific inquiry focuses on investigating the enhancement of energy efficiency in green hydrogen production through paired electrolysis. We will develop a broad discussion that goes beyond the energy efficiency of this system to include its commercialization and market take-off potential. This work aims to empower the scientific community in advancing sustainable energy-efficient and policy solutions that foster sustainable innovation and accelerate the energy transition. This project contributes to the SDG 7 (Affordable and Clean energy), SDG 8 (Decent work and economic growth), SDG 9 (Industry, Innovation, and Infrastructure) and SDG 13 (Climate action).

Climate finance and energy minerals

Ruth Carlitz (FMG)

Michelle Westermann-Behaylo (FEB)

We adopt a systems approach to study how the politics of implementation affect responsible energy mineral production and access to modern energy services in Sub-Saharan Africa, emphasizing clean energy. We analyze economic and financial systems, including the flow of goods and investments in clean energy tech. To understand investment paths in renewables and energy minerals, we scrutinize governing policies, and commitments from businesses and government to effectively mitigate climate change's impacts. This is vital as past efforts often fell short, especially in improving living and working conditions. This project contributes to the SDG 1 (No poverty), SDG 7 (Affordable and Clean energy), SDG 13 (Climate action) and SDG 17 (Partnership for the goals).

Sustainable aviation fuels from waste

Shiju Raveendran (FNWI)

Vittoria Scalera (FEB)

Sara Solis (Circular Economy Lead, Schiphol Airport)

This project, in collaboration with Schiphol airport, will explore the implementation of an original circular business model for the energy transition and has two key components: technical and business. The first looks at the feasibility of producing sustainable aviation fuels (SAF) from mixed waste and the latter looks at the development of a circular business model involving external partners. Developing SAF from waste, instead of incineration, is a key task to achieve the Schiphol's target to be net-zero in 2050. This project contributes to the SDG 7 (Affordable and Clean energy), SDG 11 (Sustainable cities and communities), SDG 12 (Responsible consumption and production), SDG 13 (Climate action) and SDG 17 (Partnership for the goals).

Energy transition in Ethiopia

Lies Jacobs (FNWI)-IBED)
Nicky Pouw (FMG)
Elisabeth Krueger (FNWI-IBED)
E. Dinssa (Mekelle University)

This project proposes an interdisciplinary approach to understand the impacts of various shocks on national and regional energy access and the ripple effects on SDGs. It prioritizes affordable and clean energy for marginalized communities, aiming to inform future policies through a better mapping of household needs, accounting for setbacks, anticipating shocks, and understanding complex SDG interdependencies so that trade-offs can be mitigated. This project contributes to the SDG 3 (Good healthy and well-being), SDG 5 (Gender equality), SDG 7 (Affordable and Clean energy), SDG 13 (Climate action), SDG 14 (Life below water) and SDG 15 (Life on land).

Data-Driven Optimization of Policy Strategies for Energy Transition and Sustainable Development Methodologies

Jocelyne Vreede (FNWI)
Luc Fransen (FMG)

We plan to use data science approaches and policy studies to optimize the Value Chain Assessment, originally developed to integrates all relevant literature on the green hydrogen transition to characterize its impact on all SDGs. Adding a data science dimension to this assessment facilitates a more fine-grained impact analysis of the relevant insights from literature on energy transition, through automated search and machine learning approaches. Adding policy study perspectives provides a stronger measure of the impact of policies devoted to the energy transition and energy value. Our research will contribute directly and indirectly to all the 17 SDGs and will be made available to the UvA community, policymakers and practitioners.

Exploring energy justice and multi-species rights in Southern Africa: a comparative study drawing on indigenous perspectives

Margaretha Wewerinke-Singh (FdR)
Eileen Moyer (FMG)
Linda Musariri (FMG)

This project seeks to explore how energy justice and multi-species rights are understood and conceptualised by different indigenous groups in Southern Africa, focusing on three comparative case studies: the Boegoebaai green hydrogen project in South Africa, lithium mining in Zimbabwe, and a water desalination project tied to hydrogen production in Namibia all of which entail dispossession and exploitation of indigenous ecologies. By examining these cases, we aim to shed light on the potential conflicts and synergies between renewable energy development, indigenous rights, and the rights of nature. This project contributes to the SDG 6 (Clean water and sanitation), SDG 7 (Affordable and Clean energy), and SDG 15 (Life on land).

Carbon capture and utilization – the potential of keeping CO₂ as feedstock in the Netherlands

Sonja Pullen (FNWI)
Mark van der Veen (FEB)

Utilization of CO₂ ranges from its direct use in greenhouses to its conversion into base chemicals such as methanol, formic acid or cyclic carbonates. We will focus our study on the latter part, in order to investigate what are the minimum requirements (i.e., efficiency, stability, scale) for novel catalytic processes for converting CO₂ into these chemicals in order to be competitive with exporting captured CO₂ and storing it underground. This project contributes to the SDG 8 (Decent work and economic growth), SDG 9 (Industry, Innovation, and Infrastructure) and SDG 13 (Climate action).

Understanding the Just Transition through the lenses of Wellbeing, Justice, and Equity

Matteo Fermeglia (FGW)
Colin Hickey (FNWI)
Aslin Unan (FGW)
Christina Eckes (FdR)

The project will investigate the concept of just transition as understood and applied in both South African and European policies from the perspective of its intersections with ecological integrity and well-being, as well as its implications for climate justice and litigation. It will engage with the complexities rooted in the need to provide access to energy, whilst ensuring human health and wellbeing inherently bound up with ecological wellbeing both in the Global North and Global South. To this end, the project will resort to an interdisciplinary methodology encompassing the following disciplines: Law and Policy; Ethics; Political Science. The above disciplines will interact in such a way that the project will contribute to SDG 3 (Good healthy and well-being), SDG 7 (Affordable and Clean energy) and SDG 13 (Climate action).

Projects

- **Future of Energy Seminar**
- **Development of methodologies**
- **Events and Workshops**
- **Courses**
- **Examples of output**
- **Media (Videos) and Website**
- **Partnerships**

FUTURE OF ENERGY Seminar

Since the start of ENLENS, Future of Energy Seminar (FoE) has been given a substantial boost, and has been one of the most successful results of ENLENS. Once a month, two lecturers from different UvA faculties are invited to present how their current research can offer new insights and initiate discussions on the progress of the European energy transition and its impacts worldwide. These discussions shed light on the intricate interconnections between the energy transition and nearly all SDGs.

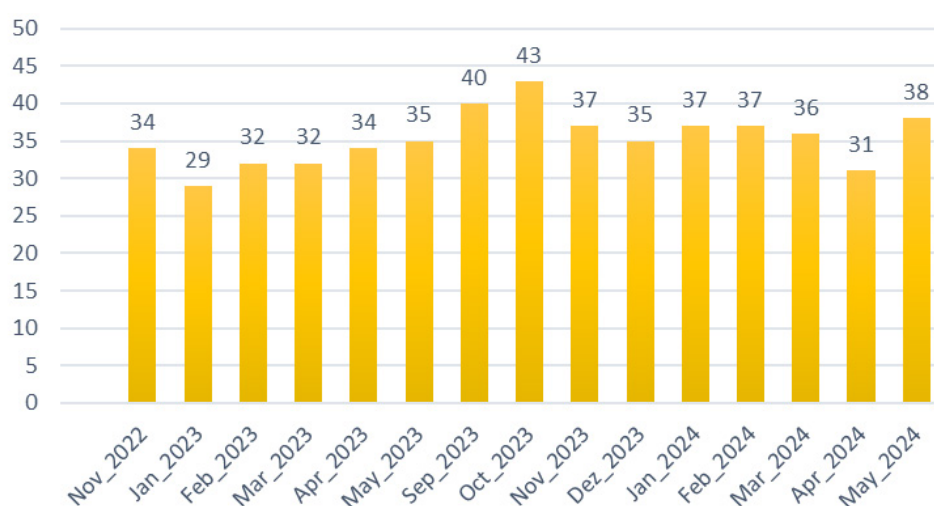
FoE - IAS



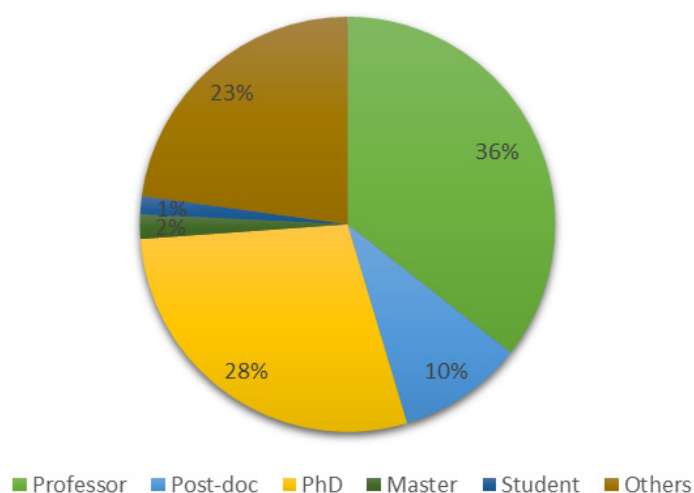
FUTURE OF ENERGY Seminar

Each Future of Energy Seminar (FoE) has successfully and consistently gathered over 25 researchers from many different disciplines, fostering collaborative and integrated discussions on the multi-dimensional aspects of the energy transition. The FoE Seminar is held at Institute for Advanced Studies.

NUMBER OF SUBSCRIBERS



SUBSCRIBERS PER POSITION



FUTURE OF ENERGY Seminar



Joyeeta Gupta - FoE Seminar



Rick van der Ploeg - FoE Seminar



André Nollkaemper - FoE Seminar

FUTURE OF ENERGY Presentations

- Maximizing the impact of sustainable finance and climate philanthropy (13.05.2024) - **Paul Smeets**
- The complex causation problem in international law of climate change (13.05.2024) - **André Nollkaemper**
- A game-theoretic approach towards climate change control (15.04.2024) - **Florian Wagener**
- The role of Perovskite PV and wind power in the energy transition (15.04.2024) - **Lucie McGovern**
- Oil & gas (multi)nationals' response to global climate decision-making (11.03.2024) - **Nina Herzog-Hawelka**
- The role of sustainable (aviation) fuels in the energy transition (11.03.2024) - **Shiju Raveendran**
- The energy transition through a climate law and governance lens (12.02.2024) - **Matteo Fermeglia**
- A complexity study of electric vehicle charging for transport decarbonisation (12.02.2024) - **Michael Lees**
- Why climate policy is a mess (15.01.2024) - **Rick van der Ploeg**
- The future of plastic high potential polyesters from biomass and CO₂ (15.01.2024) - **Gert-Jan Gruter**
- When does climate finance respond to local needs? (11.12.2023) - **Ruth Carlitz**
- Social tipping dynamics to accelerate the energy transition (11.12.2023) - **Floor Alkemade** (with Bart Bruin, Francesco Pasimeni and Robert Wade)
- Energy production and chemical emissions (13.11.2023) - **Annemarie van Wezel**
- Realising human rights in the global energy transition (13.11.2023) - **Margaretha Wewerinke-Singh**
- Avoiding sustainability trade-offs (in the energy transition) (16.10.2023) - **Elizabeth H. Krueger**

FUTURE OF ENERGY Presentations

- Climate change, environmental degradation, energy transition and international history (16.10.2023) - **Ruud van Dijk**
- Leaving fossil fuels underground (11.09.2023) - **Joyeeta Gupta**
- Large-area solar power enabled by perovskites (11.09.2023) - **Bruno Ehrler**
- Energy transition and field philosophy (15.05.2023) - **Jeff Diamanti**
- Towards a sustainable society? (15.05.2023) - **Peter van Dam**
- Energy and climate economics how to get the carbon price right (17.04.2023) - **Joeri Sol**
- (Un)sustainable mineral mining in South America (17.04.2023) - **Harry Seijmonsbergen** and **Barbara Hogenboom**
- Uncertainties in simulations for climate and renewable energy (13.03.2023) - **Daan Crommelin**
- The European central bank's energy policy (13.03.2023) - **Jens van't Klooster**
- Ethics, the future of energy and climate policy (13.02.2023) - **Colin Hickey**
- The EU strategy on hydrogen production in North Africa (13.02.2023) - **Julian Morgan**
- Developments in pro-environmental behavior research (16.01.2023) - **Cameron Brick**
- Towards a hydrogen economy - New chemistry for the energy transition (16.01.2023) - **Bas de Bruin**
- Climate cooperation through more transparency (14.11.2022) - **Astrid Dannenberg**
- Twin challenges of the energy transition and circular economy (14.11.2022) - **Chris Slootweg**

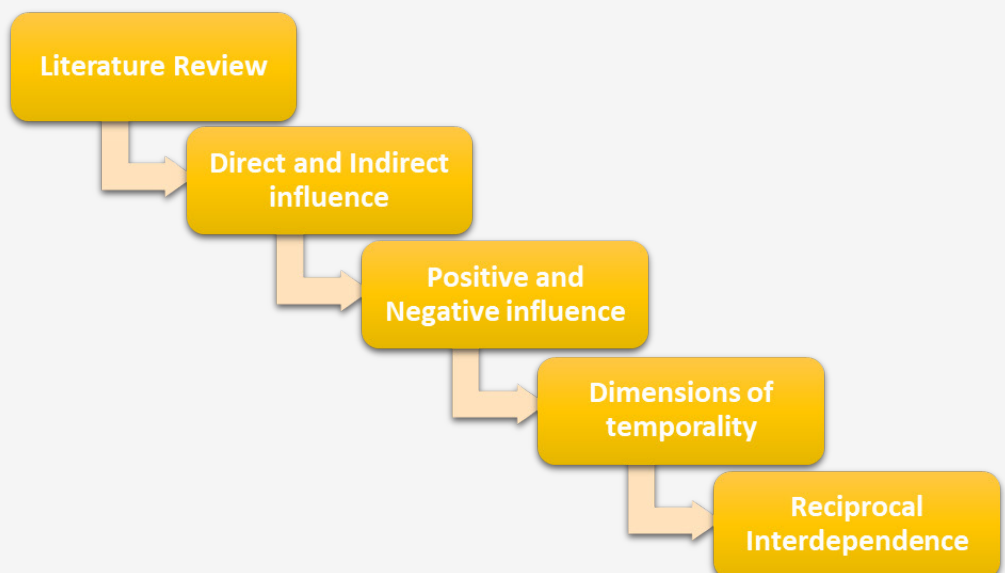
FUTURE OF ENERGY Presentations

- The pathways and challenges of energy transition in the global south (10.10.2022) - **Drielli Peyerl**
- The role of consumer in the energy transition (10.10.2022) - **Kati Cseres**
- Using the green in greenhouse (21.06.2022) - **Tijmen Bakker**
- C5: Carbon cycle, chemistry and climate change (19.04.2022) - **Jan van Maarseveen**
- Methane emissions - what is the systemic theory of change? (19.04.2022) - **Roland Kupers**
- "A realistic view of greenhouse gas emissions and climate change in the coming decade (14.02.2022) - **Gadi Rothenberg**
- Climate change, growth and the environment (14.02.2022) - **Sweder van Wijnbergen**
- Timmerman's Dream: An energy partnership between North Africa and Europe (17.01.2022) - **Bob van der Zwaan**
- Photovoltaics: research developments and role in the energy transition (17.01.2022) - **Erik Garnett**
- Wind turbines, solar farms and house prices (24.02.2020) - **Martijn Drees**
- Solar fuels: what, why, how, and when? (24.02.2020) - **Joost Reek**
- Effects of the energy transition on nature (16.01.2020) - **Willem Bouten**
- Designing energy neutral cities (16.01.2020) - **John Grin**
- Reducing psychological distance to sustainable consumer energy use (19.12.2019) - **Frenk van Harreveld**
- Techno-economics of solar fuels (09.12.2019) - **Bob van der Zwaan**

Part of the ENLENS team is developing a novel methodology, the Value Chain Assessment (VCA), to guide the sustainable development of entire value chains. This methodology is one of the main results of ENLENS and can be used as a tool to advance the SDGs.

The VCA methodology can be applied to a broad range of possible value chains, e.g. for different energy carriers or, alternatively, for energy technologies like renewable electricity generation or carbon dioxide capture and storage (CCS). This methodology was first applied for green hydrogen as an example.

Value Chain Assessment (VCA): We employ five distinct steps to categorize how the value chain aligns with the sustainable development through the SDG targets.



The five steps of the Value Chain Assessment methodology (VCA)

Launch of ENLENS

On 13 December 2022, the University of Amsterdam (UvA) officially launched its RPA ENLENS. The invited lecture was given by Shonali Pachauri, Principal Research Scholar of the Energy, Climate, and Environment Program at the International Institute for Applied Systems Analysis (IIASA), who spoke on the topic of 'How energy interlinks with sustainable development'. More than 70 people attended the launch of ENLENS.



Shonali Pachauri presentation



ENLENS launched

On 7 December 2023, we organized an event titled 'ENLENS Workshop on Writing an Interdisciplinary Research Proposal.' The aim of this workshop was to encourage and explain how UvA researchers can submit proposals and facilitate networking between faculties. In addition, we shared inspiring examples of inter- and transdisciplinary research projects related to the energy transition and SDGs with the attendees.

Course "Future of Energy"

We plan to offer a summer course entitled 'Future of Energy' in the first semester of 2025. In this course, we will invite leading researchers to share their insights on how the energy transition can be realized as fast as possible, addressing important governmental, political, economic, technical, chemical, behavioral, ethical and juridical issues aspects related to this task.

We will not do so without taking into account how these aspects can and must be combined, in an interdisciplinary and systemic approach, to attain the SDGs.



Since May 2024, we have coordinated the ENLENS videos to accomplish a clear goal: to showcase how each UvA researcher and ENLENS project contribute to advance in achieving the SDGs and influence the energy transition context. Additionally, these videos highlight UvA's commitment to the SDGs. Each video, lasting one minute on average, serves as a direct means of communication for disseminating ENLENS information.

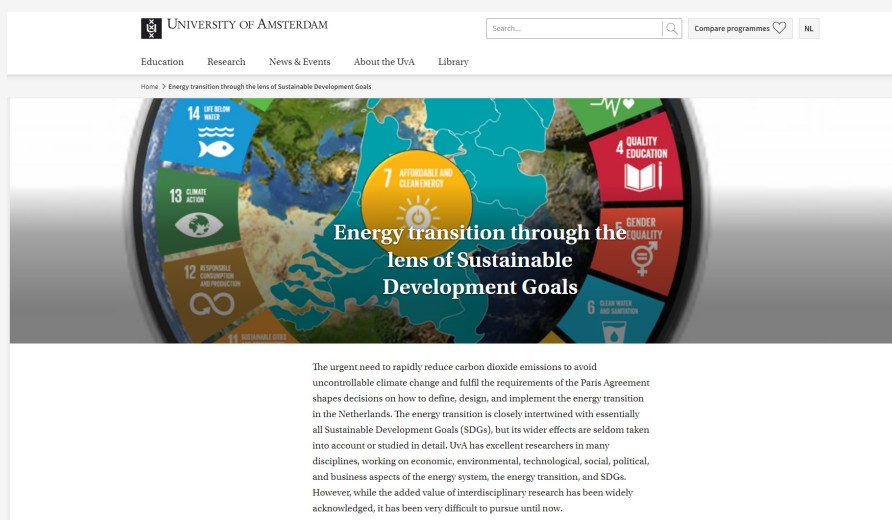


Ruth D. Carlitz - Project "Climate finance and energy minerals: A systems approach"



Michelle Westermann-Behaylo - Project "Climate finance and energy minerals: A systems approach"

In January 2023, we launched the ENLENS website, updating it with information on projects, activities, publications, and calls for proposals ever since. This website is one of the main tools used to spread and inform the community about ENLENS' activities. Moreover, it serves as a historical archive documenting the evolution of this RPA.



ENLENS website

For more information, see:
<https://www.uva.nl/en/shared-content/zwaartepunten/en/energy-transition-through-the-lens-of-sustainable-developments-goals/enlens.html>

Partnerships

In January 2024, Prof. Bob van der Zwaan and Drielli Peyerl represented the University of Amsterdam during the planning of Hy-SUCCESS - NWO. The Hy-SUCCESS consortium represents a collaboration of ten universities, two research institutes, five universities of applied sciences, one research and technology organization, and three industry partners. The Hy-SUCCESS consortium will follow a transdisciplinary approach. The drivers and complementary expertise of the consortium members enable us to gain a comprehensive view of the non-technological aspects of (green) hydrogen.

Involvement in UvA-wide activities

- Bob van der Zwaan, Ans Kolk and John Grin are directly involved in the UvA- wide climate programme led by Prof. Andre Nollkaemper.
- Bob van der Zwaan, Ans Kolk, Marija Bartl, Barbara Hogenboom, Coyan Tromp, John Grin and Drielli Peyerl are involved with the activities of the Sustainability Platform (USP) - UvA.
- Barbara Hoogenboom and Ans Kolk are on the steering group of UvA's IP theme, Sustainable Prosperity.

Internships

From July to December 2023, in collaboration with the University of São Paulo, two PhD candidates, supported by the Brazilian government, completed an internship at the University of Amsterdam, focusing on energy transition and sustainable development. Anna Luisa Abreu Netto is applying the VCA methodology for Carbon Capture and Storage (CCS), while Mariana Ramos is analysing the sustainability of the hydrogen production and CCS in offshore area.

Publications

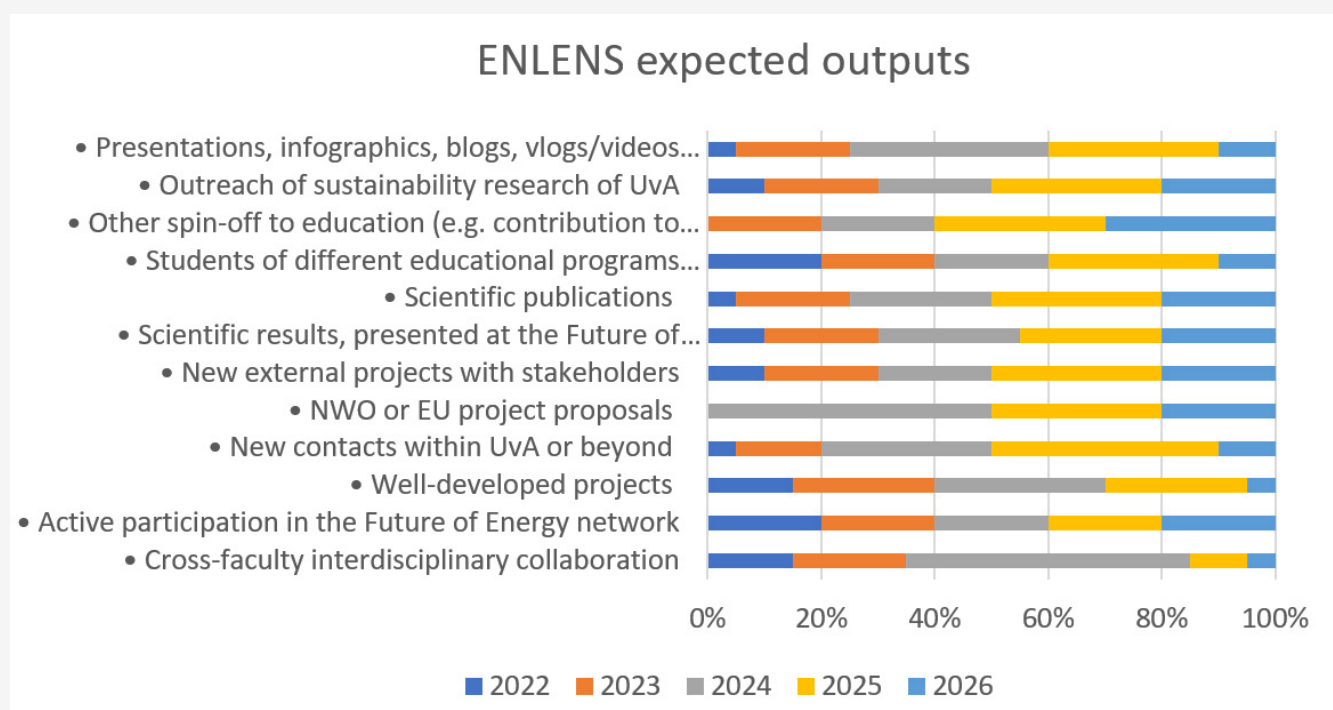
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NEXT STEPS

This midterm report demonstrates that the ENLENS project has achieved its proposed objectives, enhancing not only the academic community but also how it can accelerate the energy transition process and contribute to better understanding how to advance in achieving the SDGs. Collaboration between faculties through ENLENS has demonstrated how interdisciplinary cooperation has strengthened research and achieved results with greater impact. Therefore, as the next steps, ENLENS intends to continue the activities described in this report as well as further expand its network.



In the medium to long term, the current work of ENLENS may embed interdisciplinary expertise on energy transition and sustainable development topics within the UvA community. Furthermore, the network of researchers formed by ENLENS may facilitate dialogue and collaboration between faculties, fostering the continuity of these relationships through the outcomes achieved.

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