

The Faculty of Science, Institute of Environmental Sciences (CML) and the Faculty of Governance and Global Affairs, Leiden University College, are looking for a:

PhD Researcher on life cycle-based sustainability assessment and circularity mapping for the healthcare sector

Vacancy number: 24-660

Join an exciting Horizon Europe project called ENKORE, which will deliver a methodology to enable pharmaceutical companies to make safe and more sustainable healthcare products and packaging materials.

Key Responsibilities

A future-proof healthcare sector requires the inclusion of safety and sustainability in the design of new medical devices. The same reasoning applies to the packaging materials that will be used in the healthcare sector, without obviously compromising their required technical performance. As a PhD candidate in this project, you will have the opportunity to develop Life Cycle Assessment models to assess the environmental and social impacts, as well as the circularity potentials of a sample of medical devices and packing materials used in the healthcare sector. These will be integrated into a comprehensive methodology to shape safe and more sustainable healthcare products and packaging materials.

More specifically, you will be working on:

- Developing life cycle inventories for the ENKORE project packaging materials and devices.
- Developing models to enable the assessment of the environmental and social impacts associated with the target packaging materials and devices of the ENKORE project.
- Identifying the main environmental and social concerns (hotspots) for the ENKORE packaging materials and devices that can be tackled to shape their re-design.
- Attending and actively participating in project meetings, providing updates on research progress and collaborating with partners.

What you bring

This position is a good fit for you if you recognise yourself in the following:

- You hold a master's degree in one of these fields:
 - Industrial ecology, environmental sciences, sustainability assessment, or another related field.
- You have expertise in one or more of these areas:
 - (Prospective) Environmental Life Cycle Assessment.
 - (Prospective) Social Life Cycle Assessment.
 - Circularity Assessment.
 - Data management and programming (e.g., Python).
- In case you do not have all the desired expertise, you demonstrate strong motivation to develop yourself in those areas.
- You have recorded experience in planning and executing research tasks.
- You have excellent social and communication skills and the ability to collaborate with other researchers, industry and policy actors.

- You have excellent English language skills in writing and speaking.

Where you will work

Your position will be embedded in the [Department of Industrial Ecology](#) of the [Institute of Environmental Sciences \(CML\)](#) (Faculty of Science) and the [Decision Engineering for Sustainability and Resilience \(DESIRE\) Laboratory](#) of [Leiden University College](#) (Faculty of Governance and Global Affairs).

The Institute of Environmental Sciences CML at the Faculty of Science

CML is a global leader in the field of sustainability assessment, especially Life Cycle Assessment, Material Flow Analysis and Environmental Input-Output Analysis. It offers a vibrant and supportive community of scientists committed to the challenges of sustainability, with a multidecade record of leading the field of industrial ecology in Life Cycle Assessment, Material Flow Analysis and Environmental Input-Output Analysis. CML distinguishes itself for its attention to professional development in coordination with the interests of its scientists. As such, there are plenty of opportunities to learn new skills, expand your knowledge, collaborate across disciplines, and experiment in a friendly environment fully embodying academic freedom across all career levels.

CML is part of the Faculty of Science, which is a world-class faculty where staff and students work together in a dynamic international environment. It is a faculty where personal and academic development are top priorities. Our people are committed to expanding fundamental knowledge by curiosity and looking beyond the borders of their discipline; they aim to benefit science and make a contribution to addressing the major societal challenges of the future. The research carried out at the Faculty of Science is very diverse, ranging from mathematics, information science, astronomy, physics, chemistry and bio-pharmaceutical sciences to biology and environmental sciences. For more information about the Science Faculty, click [here](#).

The DESIRE laboratory at Leiden University College, Faculty of Governance and Global Affairs

The DESIRE Laboratory is a key player in the development of Decision Support Systems (DSS) with Multiple Criteria Decision Analysis/Aiding (MCDA). It (i) provides state-of-the-art, adaptable and transparent strategies to formulate, model and support better decision-making, (ii) develops and applies decision-support tools to tackle sustainability and resilience-related challenges, and (iii) trains future decision engineers to tackle complex decision-making.

The DESIRE Laboratory is part of Leiden University College The Hague (LUC), the international English-language Honours College of Leiden University. Talented and motivated students from all over the world come to The Hague especially to take part in the innovative Liberal Arts and Science programme that focuses on today's global challenges. For more than a decade, LUC can count on a spot in the Keuzegids Universiteiten as the best-rated University College in the Netherlands. The academic staff, with diverse backgrounds and disciplines, have a passion for teaching and education in which the student is central. LUC is part of the Faculty of Governance and Global Affairs (FGGA), one of the seven faculties of Leiden University. This young, entrepreneurial, innovative organisation

has three scientific institutes, two centres, over 3,700 students and 425 staff members. For more information about the FGGA Faculty, [click here](#).

What we offer

Our goal is to work together to create a transparent and inclusive work environment in which everyone feels welcome and appreciated. Our organisation is always evolving, and we need your ideas for improvement and innovation to take us further. We want to devote attention to your personal development.

We also offer:

- At Leiden University, a PhD candidate is seen as an employee rather than a student. As such, we offer a 1-year position with the possibility of extension to 4 years based on performance and following the pay scale P in accordance with the Collective Labour Agreement for Dutch Universities.
- Salary ranges from € 2.901.- gross per month in the first year to € 3707 gross per month in the fourth year based on a full-time position. (38 hours)
- A holiday allowance (8%), an end-of-year bonus (8,3%), and an attractive pension scheme at ABP.
- Candidates from outside the Netherlands may be eligible for a substantial tax break (“30% rule”).
- Flexible working hours: as a standard, you are entitled to a minimum of 29 leave days based on a full-time working week of 38 hours; you can also save for extra leave, for example by working 40 hours a week, and this way accrue an extra 96 leave hours, or exchange 96 leave hours for a 36-hour week.
- Lots of options are available when it comes to secondary employment conditions; we can, for example, discuss options for a sabbatical or paid parental leave. Within our terms of employment individual choices model, you can exchange leave days and/or salary for benefits such as an advantageous sports subscription or bicycle scheme, and we also offer child-care options.
- If your work allows it, hybrid working is possible within the Netherlands.
- A home-working allowance (day and internet allowance) and attention to good workplaces. The University will also provide you with a laptop.
- All our PhD students are embedded in the Graduate School of Science. Our graduate school offers several PhD training courses at three levels: professional courses, skills training and personal effectiveness.

What we find important

Promoting an inclusive community is central to Leiden University’s values and vision. Leiden University aims to be an inclusive community in which all students and staff members feel valued and respected, and are able to develop to their full potential. Diversity in experiences and perspectives enriches our teaching and strengthens our research. High-quality education and research means inclusive education and research.

Information

Enquiries can be made to Dr. Marco Cinelli (m.cinelli@luc.leidenuniv.nl) or Dr. Stefano Cucurachi (s.cucurachi@cml.leidenuniv.nl).

Applications

Please submit your application via the online recruitment system, via the blue button at the top or bottom of this page. **Applications received via e-mail will not be taken into consideration.** Please ensure that you upload the following additional documents quoting the vacancy number:

- Curriculum Vitae.
- Motivation letter (max 2 pages).
- Name and contact details of at least two referees.

Only applications received **before the 7th of February 2025 at 23:59** will be considered.

The 1st round of interviews will take place on the 19th of February 2025.

The 2nd round of interviews will take place on the 25th of February 2025

<https://www.universiteitleiden.nl/en/vacancies/2024/q4/15361-phd-researcher-on-life-cycle-based-sustainability-assessment-and-circularity-mapping>