

Terms and Conditions Call for Projects for Circular Safe Hospitals

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Working group Circular Society, EWUU Alliance

Submission deadline 30 September 2022

1. Introduction - Circular Society Working Group of the EWUU Alliance

Eindhoven University of Technology, Wageningen University & Research, Utrecht University and University Medical Center Utrecht entered a strategic alliance (EWUU Alliance) in 2019 with the aim of working intensively together on several themes where the partners are complementary and can strengthen each other. One of the two strategic themes in the alliance is the transition to a circular society, which needs the invention of new materials and the adaptation of circular designs, but also new governance models, legal rules, and business models. A crucial prerequisite for success is that this transition is inclusive and just. Together, the EWUU institutes combine sound knowledge concerning all these angles and cover all disciplines needed. The working group Circular Society aims to support and create inter- and transdisciplinary knowledge collaborations that are tailored to societal impact, well connected to (regional) innovation ecosystems and related funding systems. Within the Working group Circular Society, we focus on two concrete societal challenges, namely the transitions towards Circular Inclusive Cities (CIC) and Circular Safe Hospitals (CSH).

The hub Circular Safe Hospitals (CSH)

The healthcare sector is one of the most carbon-intensive sectors, contributing to 7% of emissions in the Netherlands and responsible for 13% of the national footprint of material extraction. As such the sector is a major contributor to climate change, loss of biodiversity and pollution of water, air and land that controversially, negatively impact human health and wellbeing. In response, the Dutch government has called for more environmentally sustainable healthcare and requested the sector – and hospitals in particular – to reduce their environmental impact and become fully circular by 2050. A circular economy is an economic system of closed loops in which raw materials, components and products lose their value as little as possible, renewable energy sources are used and systems thinking is at the core. The circular economy strives to maintain the usability of existing materials and manufactured products as long as possible, typically through sharing, leasing, reusing, repairing, and refurbishing. Within a circular economy, waste is reduced to a minimum. When products can no longer be used or repaired, recycling is the last resort to keep the materials within the economy.

The aim of the hub CSH is to increase circularity in hospitals by developing and implementing systemic transdisciplinary circular (and safe) strategies and scalable solutions to minimize the ecological footprint and negative effects of the sector on global health. This circular transition directly contributes to the mission of the Dutch health care sector to combat climate change, minimize resource depletion and to increase the overall health of our society (in line with the Green Deal Sustainable Healthcare).

Thinking along the lines of research – education – societal impact, the hub CSH strives towards the following three strategic goals:

- 1) **Education:** Educating the current and future generation of professionals about the importance of sustainability (and particularly circularity) in the health care sector (planetary health).
- 2) **Research:** Developing systemic and transdisciplinary transition strategies and scalable solutions that contribute to the realization of circular hospitals in 2050.
- 3) **Societal impact:** Accelerate the circular transition of hospitals by implementing the promising interventions and scalable solutions in close collaboration with the quadruple helix.

In line with the above, the hub CSH supports and facilitates interdisciplinary collaborations within the four institutions that build consortia and acquire grants to perform research on the road towards Circular Safe Hospitals.

2. Purpose of the Call for Projects for Circular Safe Hospitals

The purpose of this second call for project proposals is to facilitate and financially support cross disciplinary and collaborative initiatives that contribute to the mission and research goals of the hub CSH. We especially encourage (applied or methodological) project proposals that are geared towards large(r) initiatives with regards to (but not limited to) the following three research lines of the hub CSH:

1. **Circular strategies for medical devices and procedures:** Hospitals need to move away from their “take-make-waste” culture with regards to medical procedures, devices and single-use products and become torchbearers for sustainable supply chains. In this research line we investigate how we can make the transition from a linear to a circular way of working and design safe interventions that lower the environmental impact of medical procedures, devices and (single use) medical products used in for example, but not limited to, the OR and ICU.
2. **Medication without harm - preventing waste and pollution:** As we cannot imagine health care without medicines, this research line aims to develop safe strategies and scalable solutions to lower the environmental impact of medication. There are at least two major issues to solve. The first is disposal of unused medication which leads to a large waste of resources that were used for the production, packaging and transport of medication. The second issue relates to medication residues in surface and ground water, having a major negative impact on the environment and eventually on human health. In this research line we investigate the problem and develop circular strategies and scalable solutions to minimize the environmental impact of medication.
3. **Future proof patient diets - balancing nutrition and circularity:** An important aspect for the transition towards a Circular Society is the need to provide nutritious food that is both healthy and environmentally sustainable to all of the world’s citizens by 2050. Diets like the Healthy Reference Diet are especially interesting to implement in hospitals, as nutritious food accelerates the recovery of patients and contributes to

the patient's future health (preventive health). The diminished demand for healthcare in turn will lower the footprint of the sector. In this research line we investigate nutritious food with a minimal ecological footprint from farm to fork and develop strategies and scalable solutions for hospitals to offer a healthy diet within the planetary boundaries.

3. Type of projects and priority areas

The grant (seed fund) can be used for the following activities:

1. Conducting necessary preliminary research to apply for a larger grant soon.
2. To support preparing a larger (specific) grant application related to Circular Hospitals in the near future (e.g. Horizon Europe, LIFE, NWO, NWA, ZonMW, etc.) including but not limited to
 - Consortium building, organizing stakeholder/dissemination events.
 - Grant writing support (both internal and external support).

Priority areas include:

- Research projects working on Circular solutions to major challenges in the three research lines (see Section 2).
- Innovative, cross disciplinary development of strategies and scalable solutions.
- The experts involved in the project show a clear complementarity. It must be clear that working with (alliance) partners leads to a new combination of complementary expertise and that without this specific combination of expertise the research is not possible, less innovative, or of less quality. In addition, given sufficient quality of the research and complementarity of the partners, higher priority will be given to proposals in which more than 2 partners within the Alliance are involved.
- To simulate creating an impact in real hospital settings, the committee may also prioritize applied research projects, such as:
 - Projects aimed at societal added value for private or public partners who are willing to match funding to the seed fund grant. From the external partners (both profit and non-profit) we require an in-kind (in the form of hours of an employee of the external party) and/or in-cash contribution to ensure that the research will generate value for the external organisation.
 - Projects that work together with all necessary stakeholders in the value chain to force breakthrough and accelerated application of new strategies and scalable solutions for products, processes, or services and aimed at closing the loop.
- Innovations that can provide matching funds, have the potential to obtain Intellectual Property (IP) or lead to external partnerships, and thus yield value creation for the society.
- Fit with (inter)national research agendas (NWA, KIA, KIC, research agendas of stakeholders or societal partners) or other Dutch or EU funding policy programs and as such enhances the chances of receiving (future) external funding.

The seed funds may be used for:

- Salary of faculty staff and student assistants (i.e. for extending research time of existing staff or financing substitution of teaching).
- Fees for staff or organisations who support grant writing.
- Materials and equipment needed for research.
- Other costs directly associated with the proposed activity (for example, travel costs).

The seed fund cannot be used for:

- Matching in a grant application.
- Financing the extension of the contract of a PhD student.¹
- The purchase of software, hardware or other devices unless such items are crucial to the execution of the research project and cannot be obtained through the regular support services of the institution where the researcher has been appointed.
- Attending courses or conferences not related to the research project.

4. Eligibility criteria

1. At least 2 partners within the Alliance are involved in the proposal². In addition, applicants should strive to include all 4 partners within the Alliance if possible. If not all 4 institutes participate in the proposal by the time of submission, the proposal should address strategies how to include the other institutes during the course of the project.
2. The main applicants are postdocs, tenured or tenure-track researchers (assistant professor, associate professor, professor) at the institutes of the Alliance, with a track record in research themes related to their proposed project (or building a track record based on preliminary research), preferably with application in the health domain.
3. A researcher can be the main applicant for one proposal only and can be co-applicant in a maximum of two other proposals.
4. Excluded as main applicants for this call are members of the Circular Society working group (steering committee and support team).
5. The research data should be findable, accessible, interoperable and reusable (FAIR).
6. The maximum duration of a project is 12 months. The earliest start date is 1 November. Projects should not start later than 1 January 2023 and should end 1 December 2023.

¹ An exception can be made for PhD students that have completed his/her work for the dissertation and still have some time left in the contract. The PhD student may then be included in the budget for the new project as a PhD student. It should therefore be clear that the PhD student will be carrying out new work that falls outside the scope of the PhD assignment.

² Researchers with an appointment at two EWUU institutions should explain that the work that they will be doing in the proposal falls naturally under the alliance partner from which they intend to participate in the proposal.

5. What amount can be requested?

The total indicative budget for this Call for project proposals is €200.000 for the period of 2022-2023. The Circular Society working group reserves the right to decide on the proportion of this budget to be awarded in this round (deadline 30 September 2022), based on the number and quality of the submitted applications. The commission estimates that

- grants of between €10-25K will be sufficient for activities to support preparing a larger grant application (Consortium building, organizing stakeholder/dissemination events, grant writing support (both internal and external support)).
- grants between €15-100K will be sufficient for proposals regarding conducting necessary preliminary research to apply for a larger grant soon.

6. Call timeline & process

30 September 2022	Deadline of Call for project proposals 2022
17 October 2022	Applicants will be informed about the result
1 November 2022 – 1 January 2023:	Start of project
1 December 2023	Ultimate end of Project

7. Submission guidelines

Applications can be submitted by e-mailing the completed call specific application and budget form (download links are provided on the EWUU website) to the hub Circular Safe Hospitals at circularhospital@umcutrecht.nl. The deadline of the submission is 30 September 2022 at 18:00hrs. The applicants will be informed about the result of their applications on 17 October 2022 latest. Applications that do not meet the minimum requirements (eligibility criteria and submission requirements) will not be considered.

8. Review procedure and criteria

Review procedure

The proposals will undergo a scientific review by the members of steering committee and, if applicable, will have to obtain approval of an Ethics Review Board at the institute of the main applicant. The members of the steering committee of Circular Society will perform the scientific review of the proposals. If necessary, they may ask experts outside the working group to review the research proposals. Steering committee members who have a conflict of interest (for example, because of involvement of direct colleagues in a proposal) are exempted from decision-making. The applicants will be informed of the decision on 17 October 2022 latest. Note that during the evaluation, the working group Circular Society can adjust proposed budgets if deemed reasonable, also to be able to fund additional proposals. Funding will be dispersed by the finance team directly following the notification to the applicants. If ethical approval is needed for a project, the amount can only be transferred after the applicants have handed over the approval of the Ethics Committee to the program manager of the Hub CSH. After this approval, the amount will be transferred, and the project can start (no later than 1 January 2023).

Review criteria

The proposals will be reviewed based on the following criteria:

1. The composition and qualifications of the team to complete the project. The extent to which the research team makes effective use of the complementary expertise of the different Alliance partners to form new collaborations and innovate in the field of circular hospitals.
2. The extent to which the seed fund is used to work towards larger initiatives and/or a larger grant application in the field of the three research lines of the hub. Higher priority will be given to innovations that can provide matching funds, have the potential to have Intellectual Property (IP), and lead to value creation for the society.
3. The extent to which the seed fund is used to work towards breakthrough innovations and accelerated implementation of circular solutions, products, processes, or services, in addition to scientific quality of the proposed project and appropriateness and the ethical acceptability of the proposed approach and methods.
4. Innovativeness and creativity of the proposed project, balanced by the project's likelihood of success. The realistic achievability of objectives and deliverables within the given timeline. The balance between budget and the intended activities and results of the proposed project.

Requirements for awardees

Awardees must be willing to attend future Circular Society events and present their results there. By the project end date (latest 12 months after receipt of the seed fund), recipients must provide a final report of the research, including at least a summary of the results, overview of the planned and obtained deliverables, and financial account. In case not openly publish the final report on the website of the alliance, we request may not be of a publishable summary of the results of good reasons to

9. Organisation

The steering committee Circular Society has the following members:

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Peter Blankestijn, UMC Utrecht, p.j.blankestijn@umcutrecht.nl

The steering committee is supported by the following members of the working group:

Jurgen Ganzevles, TU/e, j.h.ganzevles@tue.nl

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10. Contact details

Applications can be submitted to the hub Circular Safe Hospitals via circularhospital@umcutrecht.nl. For questions about this call, please contact Petra Dijkman, program manager of the hub Circular Safe Hospitals via circularhospital@umcutrecht.nl.