Co-creating solutions for a Circular Society

EWUU Institute for a Circular Society Call for proposals

Co-creation and Matchmaking event (mandatory): 8 June 2026
Deadline proposals: 18 September 2026 5 pm.

Introduction
The Institute for a Circular Society (i4CS) is excited to introduce the next round of Seed Funding. Are you a researcher at TU/e, WUR, UU or UMCU and passionate about advancing circular solutions through interdisciplinary and transdisciplinary collaboration and innovative research? Then this is your opportunity to team up with EWUU colleagues, develop collaborative projects and drive impact in the pursuit for a circular society.

Aim and approach of the seed call
With this seed call i4CS:

- initiates and supports innovative ideas and perspectives on developing circular systemic solutions for future proof regions and healthcare.
- facilitates and stimulates collaboration with (relevant) societal stakeholders.
- stimulates inter- and transdisciplinary collaboration including researchers of the four EWUU partners.

The approach for this call is to challenge researchers to address knowledge gaps encountered by societal partners. This way we aim to inspire academic research with societal impact and the potential to be transformative and drive systemic change towards a circular society.
Please note that seed projects are intended to kick-start a hopefully longer collaboration between societal partners, researchers of the EWUU institutes and the EWUU institute for a Circular Society.

This call covers four topics that were developed with the following societal partners:

- Informed and Sustainable Decision Making in Surgery – UMC Utrecht
- Life cycle choices for medical devices
- Tackling the Housing Crisis with Fast and Circular Concepts – ROM Utrecht
- Mapping and Recovery of Critical Materials for Circular Construction – ROM Utrecht

Preliminary research questions for each of the topics can be found in Annex 1-4.

Researchers can apply for a seed fund **after attending the I4CS Co-creation (morning) and Matchmaking (afternoon) event on the 8th of June** (see details below). The research questions in the annex will be discussed and further developed during the Co-creation event, together with the societal partners. This is then followed up with a match making event specifically for researchers who want to participate in this seedcall.

Co-creation and Matchmaking event – June 8, 2026

Researchers from the four EWUU alliance universities are invited to develop transdisciplinary research proposals that contribute to resolving the knowledge gaps as described in Annex 1-4. To facilitate the development of relevant research proposals, i4CS organises a Co-creation and Matchmaking event where researchers are facilitated to interact with representatives of the societal stakeholders, find other researchers from the four institutes to collaborate with and develop research ideas together and in coherence with the societal stakeholders involved.

During the Co-creation event each of the four topics (see previous page) will be addressed in a separate sub-track in which:

- The Societal stakeholder will present how they (aim to) contribute to a circular society and provide insight into the knowledge gaps and (research) questions that they encounter in practice.
- Practitioners and researchers will explore and discuss the presented questions with the aim to supplement and improve them.
- The resulting research questions are then validated by the societal stakeholders and used as a starting point for the development of project ideas in the Matchmaking event in the afternoon.

During the Matchmaking event:

- Researchers from the different Alliance partners and societal stakeholders are invited to join forces and are facilitated to form teams.
- Research teams can start to develop their project ideas and discuss these with the societal stakeholder and do some groundwork to develop their research proposal.

Main conditions of the seed fund grant

- Proposals for one of the seed-fund topics are eligible to receive a grant if:
    - At least two researchers from the submitting team have participated in the conference sub-track related to their proposal.
    - Scientists from different disciplines and from at least two EWUU institutions are involved in the project team. Involvement of more EWUU institutes and more disciplines will be rated higher in the evaluation.
    - The proposal includes a plan on how the societal stakeholder(s) will be involved in the research project.
- The maximum budget per proposal is 40 k€, which means that a total of 4 grants can be awarded. The grant money may be used for:
    - Hiring temporary researchers or other relevant staff.
    - Extending research time of existing staff (i.e. financing substitution of teaching);
    - Activities that are relevant to achieve the goal of the proposal such as organising dialogue or scenario sessions, network building, action research, citizen science and stakeholder events.
- The deadline for submission of proposals is 18 September 2026 before 5 pm. Between the Co-creation and Matchmaking event and the deadline, a short update meeting will be planned with each team to discuss the progress, the collaboration with the societal partner and to provide further guidance where needed.

The proposals will be evaluated by a panel with members of at least three EWUU partners on added value of the collaboration, research quality and impact potential. We aim for a decision before 1 October 2026.

For detailed call documents, please see in the post on our website:

- Terms and Conditions
- Application form
- Template Budget

Should you have any further questions at this point, please do not hesitate to contact Sacha Tensen, program manager Circular society: s.tensen@uu.nl

Feel free to share this announcement with your colleagues.

This call is organised by the Institute for a Circular Society, an initiative of the alliance of Eindhoven University of Technology, Wageningen University & Research, Utrecht University, and the University Medical Centre Utrecht (EWUU). We aim to do groundbreaking research relevant for practical solutions contributing to a circular society.

Annex 1. Informed and Sustainable Decision Making in Surgery

Towards sustainable anesthesiology through informed and engaged decision-making by patients at hospitals

When patients need surgery under anesthesia, they visit the pre-anesthesia assessment clinic. There, they receive education about anesthesia regarding benefits and risks of the different anesthesia techniques, since for several surgical procedures patients can choose between general anesthesia, spinal anesthesia or peripheral nerve block (these last two being called 'locoregional anesthesia'). After this education and risk-benefit discussion, patients have the right to choose their preferent technique autonomously via the law on treatment-related medical agreement, or in Dutch 'Wet Geneeskundige Behandelovereenkomst'[1].

From a medical perspective for patients in good health, locoregional anesthesia and general anesthesia are fairly equivalent with regards to long term medical outcome, risks and benefits. Small differences exist regarding patient outcomes in terms of e.g. postoperative nausea, duration of analgesia, and speed of mobility after treatment. From a medical perspective, perceived benefits in logistics, sustainability, and costs may influence anesthesiologists in their preferences.

From an environmental perspective (use of materials and ecotoxicity of drugs used), there are indications that for Dutch hospitals and certain treatments, locoregional anesthesia seems a more logical based on this perspective[2]. With regards to costs of material and care time involved, a preference should go to locoregional anesthesia.

Marije Marsman (Anesthesiologist at the UMC Utrecht) indicates that awareness of the differences over the options on environmental impact and costs seems to be increasing among anesthesiologists, but individual patients are mostly not actively involved in this process. For anesthesiologists, guidance on sustainability can be found in the guidelines for anesthesia by the Federation of Medical Specialists[3].

The differences indicated from a medical and environmental perspective are acknowledged by Marije, but she indicates there is insufficient data regarding costs and environmental impact for the Dutch situation and that guidelines don't fully provide direction whether and how patients should be informed about environmental impact of their options. This data is needed to inform both the anesthesiologists and the patients about the differences in the options for anesthesia.

Furthermore, anesthesiologists may think that patients do not want to be informed about the environmental impact of different anesthesia techniques as a factor in their decision. They fear that patients are already overwhelmed by decisions they have to make during a stressful event such as surgery and anesthesia.

Lastly, results from scientific studies may be needed for anesthesiologists to make them 'competently aware' in informing the patients also about the environmental aspect.

Main questions:
Can education of patients about environmental impact and impact on costs influence patients' decision towards more sustainable anesthesia?

If sustainability influences a patient's decision, how can patient education be implemented in anesthesia practices?

We particularly encourage proposals addressing one or more of the knowledge gaps indicated in the questions below.

1. Landscape mapping:
    a. What research has already been done on material use, ecotoxicology of drugs used by anesthesiologists, costs and patient preference for the locoregional anesthesia and general anesthesia?
    b. What is the current choice of anesthesia for procedures central in the research project?
2. What are the differences between general and locoregional anaesthesia in the Netherlands in terms of environmental impact and costs (including staff time)?
3. What are perceptions of anaesthesiologists and their willingness to disclose information on environmental impact, costs, and staff time to patients during the pre-operative decision-making process?
4. What different patient groups can be identified for the procedures central in the research?
5. Which facilitators and barriers that influence patients in their decision for an anesthesia technique and should subsequently be addressed in a decision support tool?
6. How should a patient decision-support tool (e.g., an information sheet) be designed to support patients in choosing a type of anaesthesia regard to environmental impact, costs, staff time?
7. How can an intervention study be designed to evaluate the impact of such a decision-support tool?
8. This includes assessing whether providing this information influences patients' choice for specific anaesthesia, how responses differ across patient subgroups and resulting impact on environment, costs and patient appreciation of receiving this information.

Sources:

[1] Wat zijn mijn rechten en plichten bij een medische behandeling? | Rechten van patiënt en privacy | Rijksoverheid.nl
[2] Carbon footprint in trauma surgery, is there a way to reduce it? | Journal of Anesthesia, Analgesia and Critical Care | Springer Nature Link
[3] Anesthesie - Richtlijn - Richtlijnendatabase

Annex 2. Life cycle choices for medical devices

Rethinking non-sterile gloves in healthcare and assessing possibilities for application of low-impact materials from renewable sources

According to the OECD[1], the Dutch healthcare system ranks among the best worldwide in terms of access, equity and clinical outcomes. At the same time, healthcare in the Netherlands accounts for approximately 13% of national material use and 4% of total waste streams. Reducing the environmental footprint of healthcare without compromising quality of care can therefore be seen as both an ecological as well as a societal priority.

The Dutch university medical centers, united in UMC NL (formerly NFU), developed a shortlist of 22 high-impact medical disposables with strong short-term reduction potential[2]. Partly building on this, the NVZ initiated national "chain tables" around several product groups, including **non-sterile gloves,** which are identified as one of these 22 high-impact products. Taking into account the volume in which they are used, a lot of impact can be made along the R-ladder[3]. Initiatives such as the "No Risk, No Glove" campaign[2] and the development of a more sustainable glove[3] , show that change is possible, yet various knowledge gaps remain.

With this seed call, the EWUU alliance invites interdisciplinary research teams to co-develop short-term circular interventions (Refuse, Reduce, Reuse, Recycle) and explore long-term transitions towards low-impact, bio-based and green chemistry materials in supply chains in healthcare.

We particularly encourage proposals addressing one or more of the knowledge gaps indicated below.

Short-Term Circular Solutions for Non-Sterile Gloves

1. What does the current landscape for non-sterile gloves look like in terms of effects of initiatives and product innovations, e.g. shift in behavior regarding the use of the gloves and adoption of more sustainably produced gloves?
2. What barriers and opportunities can be seen in procurement, waste management, and recycling?
3. How do current cost structures across waste management, recycling and procurement affect the business case for recycling?
4. What value can be created from the collection and processing of used non-sterile gloves in terms of products design opportunities and environmental and economic value these opportunities create?

Long-term circular solutions: bio-based Materials & Green Chemistry

Beyond incremental improvements, a structural transition toward renewable, low-impact materials is needed. Using the UMC NL shortlist, including gloves and tray components, as a starting point, we invite research into various topics with a long-term horizon.

1. What lessons can be learned from previous attempts to introduce biobased materials in healthcare (e.g., pilot projects (e.g. bio-based specula UMCU), niche innovations), and what factors determined their success or failure?
2. Are biobased materials technically and toxicologically viable for medical gloves and selected high-impact components of the procedural tray?
3. Do they provide a net environmental benefit under current hospital waste systems?
4. What barriers (related to regulation, sterilization, procurement and ecosystem conditions) limit implementation and scaling of biobased materials or medical gloves and selected high-impact components of the procedural tray?

Sources:

[1] The Impact of the European Directive on Sustainability Reporting (CSRD) on the Dutch Healthcare Sector
[2] Medische disposables waarop de meeste milieuwinst te behalen is
[3] Circulariteit: 4 strategieën & de R-ladder | RVO.nl

Annex 3. Tackling the Housing Crisis with Fast and Circular Concepts

Tackling the Housing Crisis with Fast and Circular Concepts

The Netherlands, like many other countries, is confronted with a profound housing crisis. As of 2024, the estimated housing shortage amounts to approximately 317,000 dwellings, and the national government targets to deliver around 900,000 new homes by 2030[1]. Achieving this target poses significant challenges due to a combination of structural, spatial, regulatory, and environmental constraints. Key obstacles include the limited availability of land, increasing demand for flexible and adaptable housing typologies in response to changing household compositions (e.g. the growth of single-person households), lengthy and complex legal and permitting procedures, restrictions associated with the nitrogen (stikstof) crisis, and rising construction costs resulting from material scarcity and labour shortages. Collectively, these factors constrain the capacity of the construction sector to deliver housing at the required scale and pace, while simultaneously exacerbating environmental pressures and resource inefficiencies.

In response to the urgent housing shortage, governmental and market actors have launched several initiatives aimed at accelerating housing delivery, such as the Innovation and Upscaling Housing Programme[2], Parallel Planning[3], and collaborative platforms including NH Bouwstroom[4]. These initiatives emphasize collaboration, (digital) innovation, and industrialized construction as key strategies to increase construction speed and scalability. However, within many acceleration-focused approaches sustainability and circular construction often receives limited attention or is treated as a secondary objective. This can partly be explained by persistent assumptions that circular construction is inherently more costly, complex, or time-consuming than conventional building practices. At the same time, industrialized construction and circularity are closely interconnected: approaches such as modular construction, design for disassembly, and the use of bio-based materials offer significant potential to simultaneously accelerate construction processes while reducing environmental impacts, including nitrogen (stikstof) emissions, embodied and operational carbon, and material waste[5].

We invite ambitious researchers to investigate the potential of "***fast and circular*** construction[6]" concept in the Utrecht Region. The project encourages the development of creative and interdisciplinary solutions that can speed up housing construction through circular construction principles. In this concept digitalization is positioned as a key enabling mechanism, for example through AI- or platform-based decision-support systems ((e.g. quantitative scenario tools, optimization models for modular/circular design, digital twins for planning and permitting) for supply chain collaboration, parametric and generative design approaches that optimize circular and modular building concepts, digital permit for accelerating permit process and industrialized circular construction processes that integrate design, production, and assembly. Data relevant for fast and circular construction is currently fragmented (BIM, environmental, planning, permitting, supply chain data). Other challenges are data integration across actors, decision-support under multiple constraints and interoperability with existing municipal systems. Proposals are encouraged to develop data models or platforms that meet these different challenges.

Research Questions:

1. Who are the key public, private, and societal actors for development and implementation of **fast and circular construction** concepts and what roles do and could they play?

2. What are the most important (legal, economic, social, and/or institutional) barriers and enablers that these actors face regarding development and implementation of **fast and circular construction** practices in the Utrecht Region?
    a. How can circular economy principles be mobilized to simultaneously address the housing shortage and accelerate housing delivery?
    b. How can public procurement be mobilized to simultaneously address the housing shortage and accelerate housing delivery?
    c. How can an integrated legal and policy framework be developed to enable affordable, **fast and circular** housing delivery in the Utrecht Region?
2. What could be interesting (design or spatial planning) concepts or innovative solutions for fast and circular housing? What would these look like when implemented?
3. For housing associations, the cost of maintenance (both material and labor cost) is both significant and rising due to poorly maintained materials, the uniformity of materials used to simplify repairs and the enormous increase in installations. Can fast and circular concepts be combined with the need to decrease the cost of maintenance?
4. How can support, including digital innovations, be created for and amongst actors for fast and circular concepts?
3. How can digital technology support and accelerate fast and circular construction? What is the potential added value of for instance (i) AI/optimization to balance speed–cost–circularity, or (ii) digital twins and scenario tools for evaluating fast and circular concepts before implementation.

Sources:

[1] https://www.rijksoverheid.nl/onderwerpen/volkshuisvesting/nieuwe-woningen
[2] Programma Innovatie en Opschaling Woningbouw | Home | Volkshuisvesting Nederland
[3] Parallel plannen voor versnellen woningbouwprocedures | Home | Volkshuisvesting Nederland
[4] Bouwstroom - NH Bouwstroom
[5] Handreiking stikstofvrij bouwen
[6] or Circular Turbo Construction

Annex 4. Mapping and Recovery of Critical Materials for Circular Construction

Mapping and Recovery of Critical Materials for Circular Construction

This seed call invites interdisciplinary research teams to explore how greater transparency and understanding of supply chains can strengthen the security of supply for essential goods and services. This is particularly relevant for the construction sector which relies strongly on (critical) materials but is also relevant for many other sectors with a strong reliance on production processes. Recent geopolitical tensions, climate impacts, and market disruptions have shown how vulnerable local and regional economies are to global supply chain shocks.

Local and regional governments increasingly need reliable knowledge about where materials, products, and services originate and how resilient those supply chains are. Insights into supply chains are essential for designing circular economy strategies that reduce dependency on (primary) scarce resources and external suppliers. Improved supply chain transparency enables governments to make more informed procurement choices, prioritise strategic investments, and prepare for future policy planning. Circularity policies, including reuse, remanufacturing, and local sourcing, ultimately depend on accurate data about material flows and supplier networks. Of particular interest is the role and added value of digital methods like digital data pipelines and analytical tools (e.g. automated material flow mapping, risk analysis, dashboards) for supply chain transparency and resilience.

Research questions

1. How can local and regional governments better map and assess the construction supply chain on which its essential services depend, and what innovations are needed here?
2. What are the most critical materials for the construction supply chain in the Utrecht Region in the short and in the long term?
3. Which legal, economic, and technical barriers currently prevent greater transparency in public sector (and by extension private sector) supply chains?
4. To what extent can circular procurement strategies reduce regional dependency on global suppliers of critical materials?
5. What indicators and methodologies should be developed to measure material flows and supply chain resilience at the municipal or regional level?
6. How can digital technologies such as blockchain technology, data platforms, GIS or digital product passports improve visibility and traceability in a circular construction supply chain?
7. Which governance and legal models best support (instead of limit) collaboration between public authorities, businesses, and knowledge institutions on supply chain security?