

HIGHLIGHTS OF 2022

alliance TU/e, WUR, UU, UMC Utrecht | EWUU.nl

- Eindhoven University of Technology, Wageningen University & Research, Utrecht University and University Medical Centre Utrecht are complementary in knowledge and talent and work together to contribute to societal transitions



OUR ALLIANCE

BUILDING THE FUTURE TOGETHER

Future generations face unprecedented challenges: climate change, resource depletion, major healthcare problems and a widening gap in society – between rich and poor, highly educated and less educated. Scientific endeavour has a crucial role to play in finding solutions to these problems, by bringing disciplinary fields together and joining forces.

Eindhoven University of Technology, Wageningen University & Research, Utrecht University and UMC Utrecht are working together in the [alliance TU/e, WUR, UU, UMC Utrecht \(EWUU\)](#) since 2019 to tackle pressing social challenges and realise sustainable transitions to create a better future. This highlight report gives an overview of the main activities of the alliance in 2022.



ANNUAL CONFERENCE

At our annual conference 2022 [Building the Future Together](#) in Eindhoven 325 people came together to connect and collaborate.

SEED FUND: SLEEP ASSESSMENT

The seed funded [project Sleep Assessments in Preterm Infants](#) is focused on the relationship between nutrition and sleep for early human brain development. It won the Ureka Mega Challenge of UMC Utrecht in 2022.

CITIZEN SCIENCE

Over 100 researchers and supporters working on public engagement exchanged knowledge and experience during the [Wetenschapps XL](#) in October 2022.



SEED FUND: SUMMER SCHOOL

The international [summer school Food for Mars and Moon](#) received seed funding. It aims to unite students and young professionals and encourages them to create solutions for space farming while considering energy, health, food and sustainability topics.






ALLIANCE IN NUMBERS

EDUCATION

-  220 students participate in our challenges
-  325 student courses are offered for student mobility
-  159 students follow courses at a partner institute

OUTREACH

-  1109 subscribers to newsletter
-  2110 followers on social media
-  1800 unique monthly visitors on ewuu.nl

RESEARCH

-  9 seed fund calls
-  59 seed funded projects
-  337 researchers participate in our projects

COMMUNITY

-  325 participants in our annual conference
-  400 participants in other alliance conferences
-  42 events and activities
-  10 online lunch lectures with 35-85 participants each

OUR EDUCATION

ACADEMICS OF THE FUTURE

We teach the [academics of the future](#) to combine the knowledge from their disciplines with a broad scale of interdisciplinary and transdisciplinary skills. This allows students to cooperate and communicate in a complex, diverse context. We collaborate in education for professionals, developing alternatives for practicals and fieldwork and in educational research.

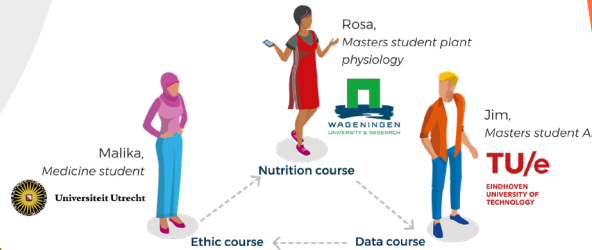


EDUCATION FOR PROFESSIONALS

In 2022 the course [Didactics for continuing education](#) for EWUU lecturers run in Utrecht. This course is meant to support teaching staff in the development of education for professionals.

STUDENT MOBILITY

The platform [EduXchange](#) makes it a lot easier for students to orientate and enroll in courses from partner institutions. In 2022 325 courses were offered and 159 students took courses from another university.



ENTREPRENEURIAL EDUCATION NETWORK

Tools, tips and reading material for [entrepreneurial learning](#) were developed and collected in network meetings for professionals in entrepreneurial learning and entrepreneurship.



CHALLENGE BASED LEARNING

We implement new, innovative teaching methods such as Challenge Based Learning, in which students from various disciplines collaborate with social partners on real problems in society. In 2022 six [challenges](#) were organised.

Replacing Animal Testing Challenge

Is it necessary to use animals for our products and medical safety testing, or can we do without? Students and professionals found solutions to the [complex problem of animal testing](#) in a multi-disciplinary context in collaboration with Proefdiervrij.

BITT Challenge

102 students from different disciplines came together with patients and doctors to [work on problems related to a disease or medical treatment](#). Ranging from how nutrition might contribute to the treatment of ADHD to the ways pain and fatigue can be reduced in [children with arthritis](#). The aim was to create patient centred solutions.

STUDENT GUIDANCE DAYS

At two [Student Guidance Days](#) 50 EWUU colleagues working in student guidance exchanged knowledge, interacted and built cross-connections.



SOCIAL TRANSITIONS

We use our wide range of expertise to contribute to major social transitions. Preventive Health and Circular Society are the priority areas of this alliance, with the aim of achieving ground-breaking and iconic cooperation while building on existing research capacity. We encourage young researchers to explore new interdisciplinary connections at our Centre for Unusual Collaborations. Our Artificial Intelligence programme and Centre for Living Technologies support our goals to improve human and environmental health.



CONFERENCE

178 professionals came together at the conference [Accelerating cooperation to stop overweight and obesity](#) in November in Utrecht. They concluded that the responsibility for obesity does not solely lie with the individual. Professionals have a role to play in the necessary systemic change, by looking beyond the boundaries of their own fields and isolated solutions, and by being open to new collaborations.

CREATING A VIBRANT COMMUNITY

Preventive Health undertook various activities to foster a lively community and to facilitate matchmaking and preparation of grant proposals. This resulted in three national grant proposals and active participation in the [Growth Fund PreventiePromotor](#).



FUNDING OF RESEARCH

How can older people remain self-reliant for longer and what interventions are needed to prevent acute hospital admission? The project [PROACT](#) dives deeper into this question combining the knowledge of nursing science with data analysis and AI. Together with 5 other projects, 35 researchers received [seed funding](#) in order to accelerate research and interdisciplinary collaboration in the field of preventive health.



CO-SHAPING FUTURE CITIES

What is the impact of the environment on a healthy lifestyle? An interactive [workshop Co-shaping future cities](#) at Utrecht Science Week explored this with 30 participants. Virtual reality was used to engage participants in designing their own neighbourhoods.

OUR RESEARCH

PREVENTIVE HEALTH

Our [Institute for Preventive Health \(i4PH\)](#) focuses on four research themes: **Healthy Start, Preserving Health, Health at Home and Living with Disease**. With this it aims to contribute to the goal that all Dutch people live for at least five years longer in good health, and to decrease the health differences between the lowest and highest socio-economic groups.



Watch the [video](#) of the Institute for Preventive Health.

OUR RESEARCH

CIRCULAR SOCIETY

The mission of our [Institute for a Circular Society \(i4CS\)](#) is to inspire with circular knowledge & innovations, and to provide effective tools for circular solutions. Circular Society researches small-scale circular systems in living labs both in healthcare as at the interface between city and countryside.



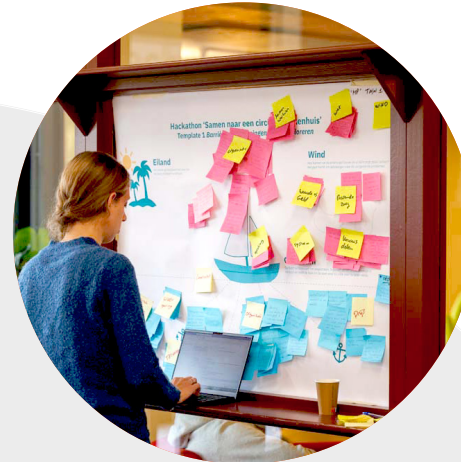
GRANTS FOR CIRCULAR CITIES

Five projects with 28 researchers received [grants within the field of Circular Inclusive Cities](#). The project From Hassle to Asset looks into water scarcity and reusing rainwater in urban areas. The Last Supper project focuses on inclusion of all levels of society in order to reach a circular economy.



HACKATHON TOGETHER TOWARDS A CIRCULAR HOSPITAL

A hackathon [Together towards a circular hospital](#) with over 70 professionals and 20 organisations in healthcare resulted in a concrete advice on how to work more sustainably in hospitals. For example materials such as medical instruments or mouth caps are thrown away after single use. This requires smart redesign and changes in knowledge, attitude and behaviour.



SYMPOSIUM CIRCULAR SAFE HOSPITAL

In October a [symposium](#) was held on the topic of a sustainable future for hospitals. 20 participants joined the discussion and pitched their ideas for project proposals.

NWA PROPOSALS

NWA allocated 1.4 million euros to a [consortium led by TU/e and in collaboration with UU research groups](#) on the renovation of buildings in a circular and emission-free way. In 2022 a NWA proposal on Circular Safe Hospitals was prepared.



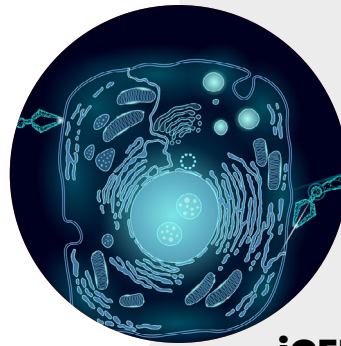
By linking knowledge and expertise of the four institutions we are able to take a multidisciplinary approach to circular issues and use each other's knowledge and networks.



OUR RESEARCH

LIVING TECHNOLOGIES

Our [Centre for Living Technologies](#) (CLT) aims to develop bio-based technologies by introducing new functionalities onto living cells and explore how these technologies can be used to improve the health of people, animals and the environment. The programme builds on existing strengths in life science research of our four institutions.



iGEM SYMPOSIUM

At the [Dutch iGEM symposium](#), organised by the alliance, 51 students from 6 Dutch universities came together, explored collaboration and discussed various ethical, societal, and political aspects of synthetic biology. The teams created projects from brainstorming to proof of concept. The iGEM competition offers the students an opportunity to apply their knowledge and push the boundaries of synthetic biology.



Watch the [video](#) of the Centre for Living Technologies



ACTIVITIES & EVENTS

In 2022 Living Technologies organised a number of activities and events, including a [sand-pit on Synthetic Microbial Communities](#), a seminar on Building Partnerships and Enabling Discovery and a symposium on One carbon fixation.



PRESTIGIOUS GRANTS

Living Technologies was successful in acquiring a number of [prestigious grants](#).



2x	1x	1x
ERC Starting Grants	GrowthFund project	Gravitational Grant
1x	1x	1x
Early career Award 2022	LUSH Young Researcher Prize	Health Holland PPP Fund
1x	1x	1x
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OUR RESEARCH

ARTIFICIAL INTELLIGENCE

Our [Artificial Intelligence programme](#) aims to develop new AI techniques that lead to a greater and better impact in the area of health and sustainability. Together the alliance partners have the data, technology, knowledge and facilities to make these solutions a reality.



Watch the [video](#) of this summit



“The students found working with data collected in daily clinical practice very valuable.”

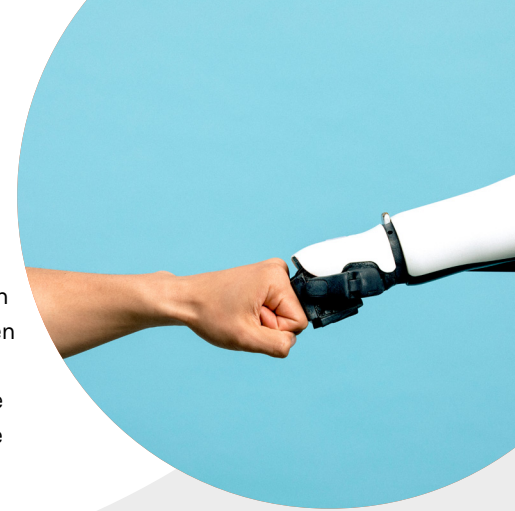
CHALLENGE AI FOR PRETERM INFANTS

Students with a background in data science, AI engineering and medicines [worked together on the prevention of sepsis in preterm babies](#) in collaboration with the intensive care unit for babies of UMC Utrecht. The goal was to provide doctors with an accurate risk analysis so they can quickly take the right measures to reduce health damage in premature babies.



AI TO THE BENEFIT OF SOCIETY

Innovative AI methods that contribute to better personalized care, to prevention and the reduction of administrative burden [were seed funded in 14 projects](#) with 78 researchers. In order to drive forward the development and application of AI to the benefit of society.



JOINT SEED CALL

A [joint seed money call](#) was launched for crossdisciplinary collaborations in which Artificial Intelligence plays a crucial role in advancing the state-of-the-art in Preventive Health and Circular Society. Seven innovative projects were funded in 2023.

AI & PREDICTIVE HEALTH SUMMIT

150 participants from our four institutions, private companies and public and non-profit organisations came together to collaborate at the [AI & Predictive Health Summit](#) in September.



OUR RESEARCH

UNUSUAL COLLABORATIONS

Our [Centre for Unusual Collaborations \(CUCo\)](#) brings together an interdisciplinary group of diverse young researchers in unusual collaboration to address the most pressing challenges of this age. This is done by removing barriers to research across boundaries for early and mid-career academics. Stimulating unexpected and out-of-the-box research is an essential aspect of the centre. Learning and reflection on the process of collaboration is key as well.

Watch the [video](#) of the Centre for Unusual Collaborations

UNUSUAL COLLABORATIONS GRANTS

The project *Imagining more than human communities* explores ways of imagining a more equitable community of humans and nonhumans (animals/ robots) and how to make it a reality in everyday live. Together with 12 other projects, it received a [Unusual Collaborations grant](#). The decision on funding was left to a lottery. In total 52 researchers were involved.



SPARK LEARNING JOURNEY

Spark grants aim to stimulate unusual collaborations to address societal challenges. A [Spark Learning Journey](#) was developed in 2022. Four new Spark teams kicked off, six ongoing Spark teams concluded their activities with 48 academics involved.



GREAT FAILURE FESTIVAL

CUCo organised 13 events with 500 participants, such as [the Great Failure Festival](#) in May. The events are characterised by their potential to stir up debate, as well as by their contribution to understanding unusual interdisciplinary research.



TOOLKIT FOR A COLLABORATIVE PROCESS

[The toolkit](#) offers a set of methods, approaches, people and likeminded initiatives that facilitate working across boundaries: across ideas, disciplines, institutes, types of knowledge and personalities.

BETWETER FESTIVAL

At [Betweter Festival](#) visitors could perform experiments with us and also travel in porous material using virtual reality.



ORGANISATION

BOARD

Members of the Executive Boards of TU/e, WUR, UU and UMC Utrecht form the Board of our EWUU alliance. The General Board involves all members of the Executive Boards of our four partner institutions.

The deans of TU/e and UU, the managing directors and deans of WUR and the chairs of the strategic themes of UMC Utrecht come together in the General Assembly.

EWUU OFFICE

The Board of the EWUU alliance receives expertise-related support from the alliance coordinator and the members of the Core Team. It receives organisational support from the Programme Team.

STEERING COMMITTEES

The six initiatives within research and education are led by steering committees, consisting of representatives of our four partner institutions.

CONTACT

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Fotografie:

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CHALLENGING FUTURE GENERATIONS

The motto of [the strategic alliance](#) between Eindhoven University of Technology, Wageningen University & Research, Utrecht University and University Medical Centre Utrecht is Challenging Future Generations. We strive to do that by putting young researchers, lecturers and students at the helm and by collaborating across the borders of the scientific disciplines. In the alliance, the four institutions combine their expertise in order to contribute to social transitions in the fields of health, food, energy and sustainability.