



ALLIANCE AGENDA 2021-2025

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INTRODUCTION

This document is the result of discussions held with members of the General Board and the General Assembly in the autumn of 2020 on the alliance's ambitions. Proposals put forward by the alliance's working groups form the foundation of this Alliance Agenda.

This Agenda sets out the course for the coming years but is also a living document: on the one hand, because the implementation of existing proposals will lead to new insights and new opportunities, on the other hand, because the advisory boards of the working groups, which started their work at the beginning of 2021, play an important role in the further elaboration of the proposed plans. At the end of 2021, the status of all projects will be evaluated, which may lead to adjustments to the plans. In addition, over time an increasing number of staff and students will become involved in the alliance and contribute ideas. They too will contribute to shaping the alliance's plans.



OUR AMBITION

TOMORROW'S CHALLENGES

Future generations face unprecedented challenges: climate change, resource depletion 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.



Eindhoven University of Technology, Wageningen University & Research, Utrecht University and UMC Utrecht are working together to tackle pressing social challenges and realise sustainable transitions to create a better future. Starting in 2020, we are working together intensively in a strategic alliance.

Eindhoven University of Technology excels in technology and has research priorities in the areas of Artificial Intelligence, Renewable Energy, Complex Molecular Systems and Photonics.

Wageningen University & Research is a world leader in the areas of Life Sciences, agri-food, the environment and sustainability.

Utrecht University has a stellar reputation as an interdisciplinary university, with research strengths in sustainability and educational innovation, including our Faculty of Veterinary Medicine, which is the only one of its kind in the Netherlands.

University Medical Centre Utrecht is a top-level academic medical centre and leader in clinical research,

basic research and translational research, as well as active in turning research into concrete applications.

Together we possess a wide range of expertise: from the humanities and social sciences to medical sciences, life sciences, exact sciences and engineering, as well as agricultural and food sciences. By working together in areas where we complement each other, we can find new solutions to the challenges facing science, culture and society.

Our ambition is to stimulate new generations of researchers and students to find creative solutions to the scientific, cultural and societal challenges of tomorrow.

Our alliance takes the form of a preferred partnership. This means that we work together intensively on specific themes and that we explore the possibilities offered by the alliance first when forming new consortia. In addition, we will continue to collaborate with our other partners at home and abroad. When relevant, we will involve these partners in the alliance's activities.

We are dedicated to educating and training academics who can bring together insights from different disciplines and put them into practice, while working at and across disciplinary boundaries. Together with social partners we are developing innovative didactic concepts



within the alliance, where students will learn to apply knowledge and insights from multiple disciplines to solve specific problems. Our students will have the opportunity of taking electives at all partners, and we are promoting this mobility by removing administrative barriers. For professionals we are developing interdisciplinary programmes that match the current demand of employers and employees.

Preventive Health and Circular Society are the priority areas of our alliance. In these areas, we are conducting pioneering research, translating our findings into practical applications and developing study programmes in line with the latest research in the field. We work intensively with social partners in the regions Eindhoven, Gelderse Vallei and Utrecht to stimulate new interconnections between these regions. We involve our national and international partners in our initiatives and build on the knowledge and technologies already developed by a wide range of consortia.

OUR AMBITIONS FOR 2025

- A shared vision on joint **education**, based on challenge-based learning, forming interdisciplinary connections and focusing on societal challenges.
- **New joint education** from (online) modules and challenges, to minors and full Master's programmes, for both students and professionals.
- A **wide range of courses** accessible to all students across the boundaries of our individual institutions.
- Combining our expertise and networks in the area of **Preventive Health** and **Circular Society** while achieving intensive and sustainable cooperation with a broad network of social actors.
- Social and scientific 'thought leadership' in the fields of **Preventive Health** and **Circular Society** by connecting agendas, publishing white papers and leading prestigious programmes.
- Creating a vibrant **ecosystem** where a wide range of social actors work together on social issues on a variety of projects.
- Innovative, interdisciplinary research initiated by young researchers at the Centre for **Unusual Collaborations**.
- Developing and applying new techniques in molecular life sciences at the Centre for **Living Technologies** to improve human and environmental health.
- Collaborating on **AI for Health**, dedicated to developing new AI technologies for health and healthcare.
- A joint calendar of activities aimed at a broad audience which allows the alliance to contribute to social debates.
- A portfolio of **citizen science** projects, realised in cooperation with citizens and civil society organisations.
- A **vibrant community** of researchers and lecturers who know how to find each other across the boundaries of institutions and disciplines.

EDUCATION

COLLABORATE & CONNECT

The alliance partners will be educating and training academics who are equipped to contribute to complex societal transitions while working together across disciplinary boundaries.



The alliance partners are jointly developing innovative didactic concepts to educate the academics of the future in which deep disciplinary knowledge and expertise will be combined with a broad understanding of different fields of study. Our students will learn to collaborate and communicate with colleagues from other disciplines in a complex environment, while connecting with society. Our education will focus on partnerships between students, lecturers and social partners.

Educational portfolio

In addition to educating new generations of academics, there is also a great need to keep the knowledge and skills of the current generation of employees up to date. The rapid development of knowledge and technology combined with the current labour market situation where people change jobs more often and retire later,

requires continuous updating and upgrading of knowledge and skills. The alliance partners are using their complementary expertise and innovative teaching methods to develop up-to-date and interdisciplinary education for professionals.

The alliance partners want to encourage students to broaden their knowledge and take courses outside their field of study and at other institutions. We will be removing organisational and physical barriers that students encounter when studying at other universities. One way we are doing this is by working with the SURF to develop a user-friendly platform where students can find information about the courses of the alliance partners and register for them. Some courses will be offered independently of time and place to encourage exchange. In addition, we will be facilitating student exchange by creating flexible learning environments for online and hybrid education. This will also support the collaboration of teaching and support staff at the alliance partners.

Challenge-based learning

Part of the alliance's portfolio will take the form of challenges. In a challenge, students from various disciplines work together with social partners on problems put forward by the business community, public organisations or society. By contributing solutions to these problems, students can contribute to societal problems while studying as well as acquiring

By 2025

the alliance partners will have developed new joint education – from (online) modules and challenges, to minors and full Master's programme options.

By 2025

the alliance partners will have jointly developed modules for professionals.

By 2025

students will be able to take a wide range of courses at every partner institution in the alliance.

By 2025

students who take a course with an alliance partner will experience fewer administrative, organisational and practical barriers.

By 2025

the alliance partners will have a shared vision on joint education, based on challenge-based learning and interdisciplinary connections while focusing on societal challenges.

skills that will stand them in good stead in their later careers, including cooperation, creativity, design thinking and entrepreneurship.

In the 2020-2021 academic year, four joint challenges were offered, in addition to the challenges already offered by individual partners. In subsequent years the number of joint challenges will be increased.

Professional education

The alliance partners, in close collaboration with industry and social partners, are jointly developing a portfolio of courses for professionals, with a focus on the two themes: *Preventive Health* and *Circular Society*. In doing so, we will make use of existing courses as well as developing new ones based on the needs of employers and employees.

The alliance partners will be exchanging experiences and best practices in the field of professional education. The aim is to develop a common approach to better meet the needs of employers and employees and to build a strong network of teaching staff with experience in professional education. We are developing a tool-kit to support teaching staff in (re)designing their courses, and organising knowledge exchange and training sessions for teaching staff.

IT support systems

The educational goals of the alliance also require adjustments in the IT support systems and administrative processes. We will take measures so that teaching staff can develop and teach courses together and students can have access to courses offered by all the partners. In doing so, we will take privacy and security requirements into account.



OUR PRIORITY AREAS

PREVENTIVE HEALTH & CIRCULAR SOCIETY

Preventive Health and Circular Society are the priority areas of the alliance. The alliance encourages young researchers to explore new interdisciplinary connections at the Centre for Unusual Collaborations.



The alliance partners will use their wide range of expertise to contribute to major social transitions. Preventive Health and Circular Society are the priority areas of the alliance, with the aim of achieving ground-breaking and iconic cooperation while building on existing research capacity. The alliance encourages young researchers to explore new interdisciplinary connections at the Centre for Unusual Collaborations.

Preventive Health

The alliance partners want to contribute to the ambition that, by 2030, all Dutch people live at least five years longer in good health, and that the health differences between the lowest and highest socio-economic groups is reduced by 30%.

To achieve this, the alliance partners are conducting ground-breaking research into interventions that promote healthy living, taking into account the

lifestyle, circumstances and characteristics of individuals. Together, the alliance partners form a unique combination of academic research groups and innovation networks that are international leaders in the fields of health, the environment, food and nutrition, and advanced biomedical technologies, and supported by a wealth of key technologies and (clinical) research infrastructures.

Our approach to Preventive Health is unique in that it adopts an integrated and positive perspective on health with a participatory approach to health. We make use of the growing body of knowledge and technological possibilities in the fields of precision health and predictive health, and are following an integrated approach that focuses on health interventions at the intersection of technology, lifestyle and the physical and social environment. Regional, national and international partnerships and network partners will be involved in the initiative, including regional development agencies, regional authorities and private partners in each of the ecosystems. In addition, we are developing courses at the Bachelor's, Master's and PhD level and for professionals.

Two examples of collaboration in the field of Preventive Health are the Centre for Living Technologies and AI for Health.

By 2025

the alliance partners have pooled their expertise and networks in the fields of Preventive Health and Circular Society.

By 2025

together with social partners, a vibrant ecosystem has been created around these themes, where students and researchers collaborate in a broad portfolio of projects dealing with social issues.

By 2025

the alliance offers social and scientific ‘thought leadership’ on these themes by linking agendas, issuing white papers and leading prestigious programmes.

By 2025

young researchers from the alliance partners working at the Centre for Unusual Collaborations have initiated innovative, interdisciplinary research projects.

Living Technology is technology based on mechanisms that occur in living beings, for instance at the cellular level. The mission of the Centre for Living Technologies is to further develop next-generation techniques for controlling cellular behaviour in order to improve human and environmental health. The Centre acts as a platform by bringing together cutting-edge research in the field of synthetic biology and aspires to take a leading role in revolutionary developments in synthetic biology.

In the field of artificial intelligence, the alliance partners represent a unique combination of high-quality expertise and a broad national and international network. AI for Health brings together the expertise of the alliance partners and initiates new connections. AI for Health will create a complete overview of all AI-related activities and initiatives within the alliance and will stimulate new collaboration. In consultation with the AI community, a roadmap is being developed with a common agenda for research and teaching. Two important parts of this are the initiation of new projects and facilitation of ongoing projects within the alliance. Building on the strengths of individual institutions, AI for Health is developing into an important player in the national and international AI landscape.

Circular

Reuse of goods, components and materials forms an important part of the transition to a climate-neutral



society. This is not only a means of dealing with resource scarcity, but also an important means of reducing greenhouse gases and other emissions. The ambition of the alliance partners is to contribute to the transition to a climate-neutral society by creating concrete, inspiring, scientifically substantiated visions of what a circular future might look like.

The unique combination of the four partners’ areas of expertise enables the alliance to fulfil its social responsibility by actively contributing to the transition to a circular society. To this end, the alliance partners are combining their expertise in the area of Circular Society. Specific fields of expertise included in this initiative are food, energy, environment, health, advanced materials and technology, and the social sciences, including

By 2025

the Centre for Living Technologies has developed and applied new techniques in molecular life sciences to improve human and environmental health.

By 2025

AI for Health has developed new AI technologies for health and healthcare in collaboration with hospitals and other health care organisations.

psychology, law and governance, economics and transition management. Together, the alliance partners will act as innovators, generators of new knowledge, educators and role models in the field of circularity.

The initiative focuses on two main activities:

1. Setting up a science and education platform for a circular society. The platform will combine the knowledge of the four partner institutes in theme groups on specific aspects of the transition to a circular society, while making connections with social partners. In addition, the platform will develop courses at the Bachelor's, Master's and PhD level and for professionals.
2. Initiating hubs that focus on specific complex systems in society where multidisciplinary knowledge combinations are needed. The first hubs are Circular Hospital and Circular, Inclusive Cities.

Unusual Collaborations

The Centre for Unusual Collaborations initiates unusual, interdisciplinary collaborations led by young researchers. By combining the expertise and passion of young researchers of the alliance partners and connecting them to social partners, the Centre will contribute solutions to urgent challenges facing society. The Centre draws inspiration from international

ambitions and frameworks, such as the Sustainable Development Goals, the Paris Agreement on climate change, and the EU's Green Deal.

The Centre for Unusual Collaborations plays an important role in building the alliance community. The Centre has meeting rooms and work areas that create a lively and inspiring environment for meeting, discussing and creative brainstorming. The Centre organises matchmaking events, workshops and symposiums, making it a breeding ground for innovative and high-quality research.



OUR PARTNERS

CONNECTING ECOSYSTEMS

The alliance partners aspire to increase the societal impact of their teaching and research by adding economic and social value.



We collaborate with companies and social partners in the regions Utrecht, Gelderse Vallei and Eindhoven and stimulate new connections between these regions. We involve our national and international partners in our initiatives and build on the knowledge and technologies already developed by a wide range of consortia.



Connecting ecosystems

Each of the alliance partners is embedded in a successful innovation ecosystem: Brainport, Foodvalley and the Utrecht region. By bringing these ecosystems together, we can capitalise on our knowledge and optimise our effectiveness. We will map the strengths and weaknesses of our ecosystems, with the aim of using our complementary strengths to create unique, innovative and complete ecosystems aimed at the social challenges and the investment agendas of the business sector. We will work together to support young researchers who want to turn academic knowledge into a start-up.

National and international networks

Societal challenges such as health, climate change and sustainability affect everyone. Many organisations are working on these challenges: knowledge institutions, companies, governments, civil society organisations and NGOs. We will build on the alliance partners' national and international networks around the themes Preventive Health and Circular Society, focusing on both teaching and research, and investing in business development to transfer our knowledge to society.

By 2025

the ecosystems of the alliance partners will have formed a fruitful partnership.

By 2025

our priority areas Preventive Health and the Circular Society have a broad network of social partners who participate in strategic and long-lasting collaborations.

By 2025

the initiatives of the alliance partners have led to a number of start-ups.

By 2025

the Centre for Living Technologies has developed and applied new techniques in molecular life sciences to improve human and environmental health.

By 2025

AI for Health has developed new AI technologies for health and healthcare in collaboration with hospitals and other health care organisations.

General public

A number of activities will be organised annually to involve the general public in the alliance's initiatives. In addition, the alliance partners will develop a joint portfolio of Citizen Science projects which invite the general public to participate in research. Alliance ambassadors will actively and recognisably engage in social dialogue on the issues on which they are collaborating.



OUR COMMUNITY

A VIBRANT COMMUNITY

The alliance partners want to challenge researchers and students to find creative solutions to the scientific, cultural and societal challenges of tomorrow. By working together in areas where we complement each other, we become stronger - individually and together.



We encourage young researchers and students to discover new connections between disciplines. By 2025, a vibrant community of young researchers will have emerged who know how to find each other across the boundaries of institutions and disciplines.

This will be reflected, for example, in researchers with multiple affiliations, lecturers who develop joint courses, staff departments who learn from each other, joint appointments and students who are taught at different institutions. The HR policies of the partner institutions will support the mobility of researchers and teaching staff between the partner institutions. For new employees, the alliance will offer attractive career prospects.

Lecturers, researchers, administrative staff and students will meet at the annual Alliance Event, as well as throughout the year at lectures, symposia and workshops.

Staff Exchange

The alliance will enable lecturers and researchers from one of the alliance partners to work temporarily at one of the other partners. In this way, new forms of collaboration can be explored and a new generation of scientists with a broad network within the alliance will emerge.

Joint professionalisation

By 2025, the alliance will have a joint professionalisation programme for academic and support and management staff where colleagues from the partner institutions get to know each other and complete the same programme together. Target groups are:

- Beginning and advanced lecturers (educational leadership)
- Researchers (research leadership)
- Managers (both academic and support and management staff)
- Administrative staff

In addition, we are setting up a programme where employees can take a look at how others work or take a sabbatical in a department of one of the partner institutions.



By 2025

a vibrant community of researchers and lecturers will have emerged who know how to find each other across the boundaries of institutions and disciplines.

By 2025

employees of the alliance partners will be able to go on staff exchange at another partner.

By 2025

the investments of the Alliance Seed Fund will have resulted in successful project proposals, new courses and other outreach and community building initiatives.

By 2025

the support staff departments (HR, finance, valorisation, building and site development and management, etc.) are actively exchanging expertise and best practices.

Seed Fund

In order to explore new interdisciplinary connections, the alliance has established a seed money fund.

By 2025, 30% of these new initiatives will have developed into large-scale collaborations that will no longer need financial support from the alliance.



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