

Roadmap to a Sustainable VU Amsterdam 2020-2025

Sustainable Leadership for a better world



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Roadmap sustainable VU Amsterdam 2020-2025

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1. Introduction

1.1 context

Climate change is one of the grand challenges of our time. There is sound consensus amongst climate scientists that the planet is warming, humanity is causing it and that it is a worldwide problem (e.g. Cook et al., 2016 and Ripple et al. 2019). Climate change could have extensive economic, social and environmental consequences (IPCC, 2014). The upcoming decades will be decisive in the way we tackle climate change. Therefore, the international community has rallied to address climate change. Most notably with the instalment of the [Paris Agreement](#) and, for example, with the recent launch of the European [Green Deal](#).

Universities hold a special position in addressing climate change. We educate the future and generate knowledge that drives humanity forward. Universities can influence sustainable development in terms of teaching students sustainability-related skills, so they are well equipped to make a sustainable contribution to society. Research can lead to innovations that benefit a sustainable society and help in tackling climate change. Also, universities have an effect in the form of knowledge transfer. Sustainable start-ups and scale-ups that are incubated and/or derived from universities can impact society positively. Moreover, the universities day to day operations also affect climate change. A sustainable university, therefore, can be characterized in terms of organization, knowledge transfer, research and education.

Recognizing the influence and responsibility the university has, the [strategy VU 2020-2025](#) introduces Sustainable as one of the priority areas of VU Amsterdam. See figure 1 for the infographic of the VU strategy 20-25. An overview of all ambitions of the priority area sustainable in the VU strategy 20-25 can be found [here](#) (in Dutch). The strategy conveys many ambitions that are related to sustainability.

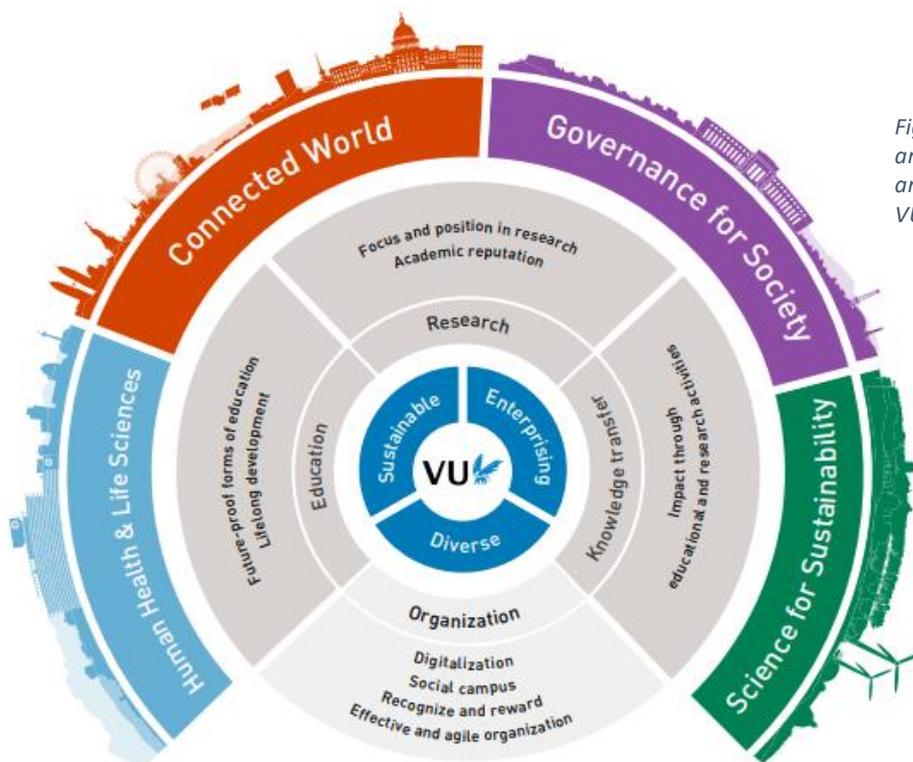


Figure 1. Summary of priority areas, strategic aspirations and profile themes from the VU strategy 20-25.

Therefore, the implementation of these ambitions will be done in partnership with the different relevant strategic teams (e.g. Entrepreneurial, Social campus and Recognize & Reward).

With sustainability as one of its priority area's it shows that VU Amsterdam wants to be a university at which sustainability is in an integral part of its functioning. At the VU Amsterdam, we view sustainability as something that is more than just the environment, it also extends to economic, human, cultural and societal aspects. VU Amsterdam, therefore, measure success in achieving our sustainability aspirations in terms of our contribution to the United Nations' Sustainable Development Goals (SDGs). The SDGs are a set of 17 "Global Goals" with 169 targets between them which the world should achieve in the period 2015-2030 (see figure 2). These goals and targets include a wide range of topics such as ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change, and protecting oceans and forests.



Figure 2 17 Sustainable Development Goals of the United Nations

VU Amsterdam is the founding partner of the [Aurora Alliance](#). This is a European university alliance of nine universities that have a strong academic position and focus on societal issues. One of these societal issues is sustainability. VU Amsterdam will closely cooperate with the other Aurora universities in realizing its own sustainability goals and the goals of the alliance.

In short, we must all act to mitigate climate change. VU Amsterdam takes its responsibility and focuses its efforts in the form of the priority area sustainable. In the following roadmap, we will outline how we will do this.

1.2 Readers guide

The roadmap is the starting point of the new sustainability endeavour of VU Amsterdam. The roadmap outlines the sustainability ambitions of VU Amsterdam. However, the roadmap is a living document, which entails that over the upcoming 5 years the content can be updated and adjusted according to what is needed at that moment. The Roadmap should be carried by the VU Amsterdam community and serve the VU Amsterdam community in its efforts to become more sustainable.

This Roadmap is crafted by the “Green Team,” which consists of four cluster teams representing the core activities of the university (i.e. Education, Research, Organization and Knowledge Transfer). These clusters consist of a wide range of motivated employees, teachers, researchers and students of the VU community. A key partner in the formation and execution of the Roadmap sustainable VU Amsterdam is the [Green Office VU](#) (GO). The GO is the student sustainability platform and students of the GO are involved in the Green team and its clusters.

The current document starts with a narrative about the approach VU Amsterdam has to sustainability. This is followed by a mission statement and central goals we intend to pursue. Then, the Education, Research, Organization and Knowledge Transfer clusters will be addressed. Each of these clusters will be discussed in separate chapters. Each cluster chapter starts with a general introduction and describes the current situation at VU Amsterdam. Subsequently, goals will be mentioned and elaborated on. Each goal will be several targets on how to realize it. Then, the implementation process and enabling targets are shown. Lastly, a table with an overview and general schedule of the implementation will be displayed.

We, the Green Team, hope you enjoy reading this roadmap and are excited and motivated to work on a more sustainable VU Amsterdam together with us!

2. Sustainability Narrative VU Amsterdam

The earth provides human society with essential resources, such as water and clean air. It is also of immeasurable value as a cultural, recreational, and spiritual resource. In present times, the earth is endangered by the human-induced global change that has effects such as diverse as deforestation and land degradation, pollution of river and seas, and depletion of mineral resources.

The VU Amsterdam community of teachers, researchers, technicians, administrators and last but not least students, wants to contribute to the urgently needed transition towards a more sustainable university and society. Through this sustainability transition, we must create a material, social and cultural ecosystem in which sustainability circulates and flourishes in the VU Amsterdam community, among its partners, and in wider society. We are excellently positioned for a leading role in academia in the Netherlands and beyond, to take a leading role in the sustainability transition. Already we are the most sustainable university of the Netherlands ([SustainaBul 2020](#)) and second in the world on climate action ([Times Higher Education Impact Ranking 2020](#)).

VU history shows the power of popular action, as we are a university that was founded by the people, for the people, more than 140 years ago. The story of VU Amsterdam is the story of people dedicated to society and improving the world by working together for a common cause. In the 21st century, the common cause is the planet: with the people, for the people.

Sustainability concerns all big societal issues outlined in the 17 United Nations Sustainable Development Goals. This makes our researchers, lecturers, and students, not just academics but also responsible public actors.

Our campus is a small city of sustainable science and an accelerator for positive impact. We are at the forefront of a sustainable future and we are proud to work towards a just cause and better world, together!

2.1 Mission statement

The primary goal of the roadmap is to create a material, social and cultural ecosystem, in which sustainability circulates and flourishes, for the VU Amsterdam community, including VU partners and wider society, that contributes to Transformation to Sustainability. We will address sustainability at all scales and levels of the logistics of VU Amsterdam, and parallel address all 17SDG's in our academic research, knowledge transfer and teaching.

2.2 Central goals

Below you can find the central goals of the roadmap:

1. **(our People)** Employees and students at VU Amsterdam practice sustainable citizenship and engage in transformations to Sustainability
2. **(our Campus)** VU Amsterdam has a sustainable campus, a material, social and cultural ecosystem in which Transformation to Sustainability can thrive
3. **(our Society)** VU Amsterdam is a Societal leader and accelerator in Transformation to Sustainability on and off campus

The figure below shows the central goals and the different clusters. The goals that are formulated within each cluster can be plotted on the figure.

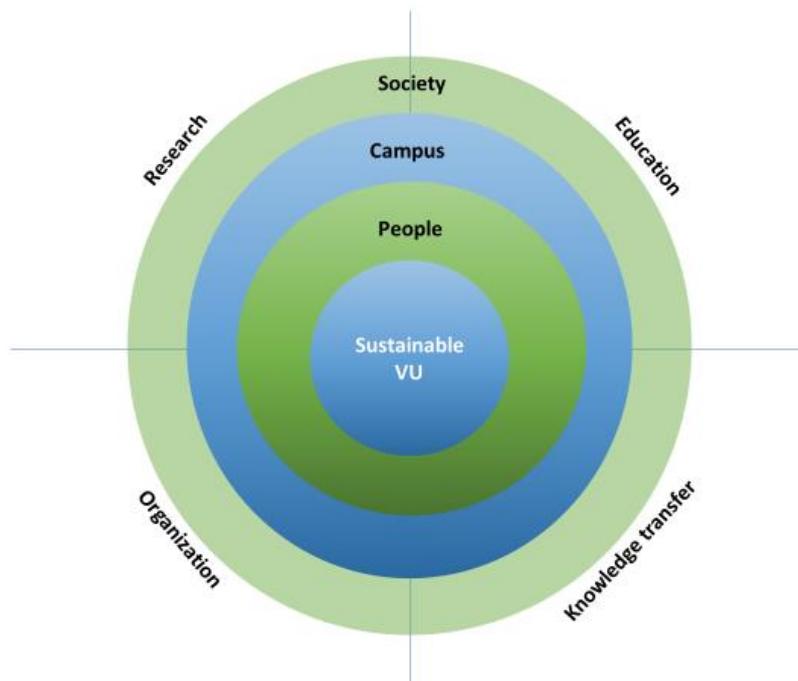


Figure 3 Overview of central goals

3. Education

3.1 Introduction Sustainability education VU Amsterdam

The values of VU Amsterdam are: personal, open and responsible. For sustainable education this means we minimize our footprint, be transparent about it and are intrinsically motivated to make the world a better place. We educate students in becoming responsible citizens that take care of the planet and society. We inspire students to find intrinsic motivation to address societal issues. In doing so, we aim to inspire academics to take sustainability into account in their future careers. Our teachers show leadership for sustainability and in doing so we educate tomorrow's leaders of sustainability.

3.2 Current sustainability education at VU Amsterdam

Currently, education about (environmental) sustainability at VU Amsterdam can be found in 105 bachelor courses in 25 different programs¹, 130 masters courses in 28 different programs² and in 48 minor courses. However, the scope of the courses that qualify as sustainable is focused on the climate aspect of sustainability, which is only one aspect of sustainability. Therefore, it is important to further assess and develop a method that can be used to evaluate sustainability in courses.

Some of the programs that have approached sustainability in a broader context are the student A Broader Mind ([ABM](#)) course and several Community service learning ([CSL](#)) projects. This shows sustainability is integrated into the VU Amsterdam education and community in various ways.

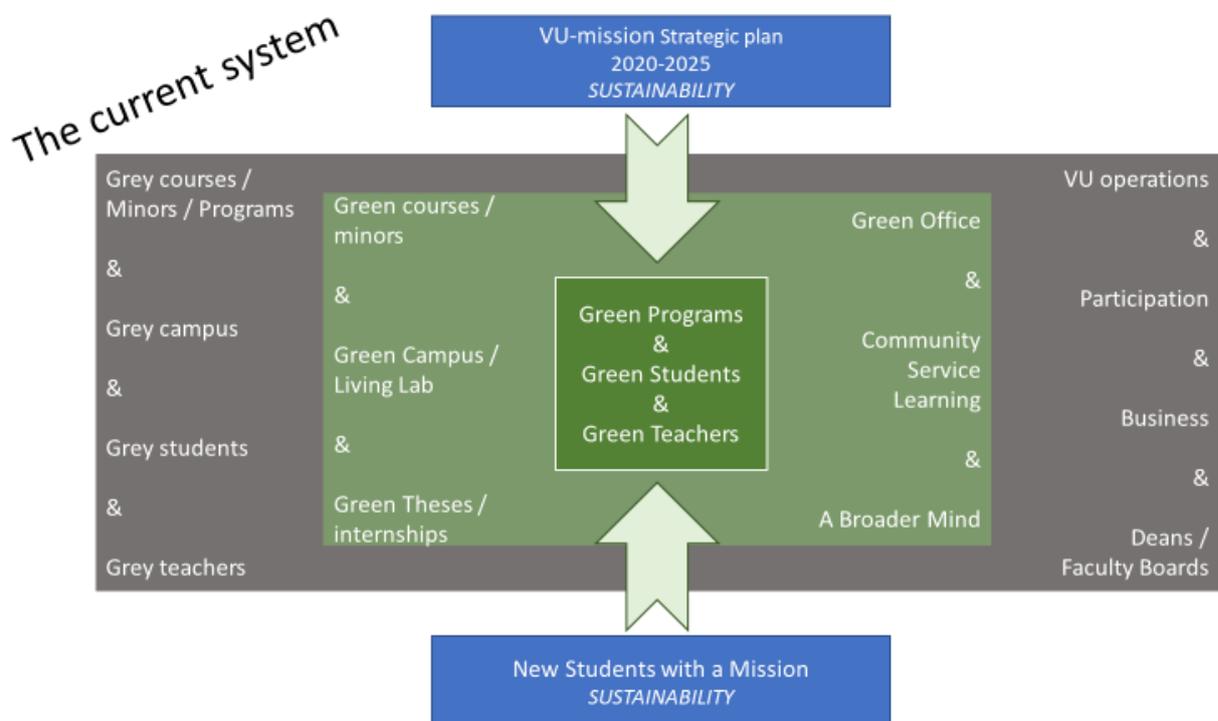


Figure 4: Overview of the current situation

¹ This is 27,5% of all 91 Bachelor programs at VU Amsterdam

² This is 62,2% of all 45 Master programs at VU Amsterdam

Figure 4 roughly illustrates the current situation. Three layers/colours can be distinguished:

- The core of this movement is **dark green** that includes activities and actors at VU Amsterdam that are fully embracing Sustainability as their core mission. Innovations for this domain could involve linking activities to allow dark green students more flexibility in their educational development.
- The next layer is the **light green** domain that includes activities and actors at VU Amsterdam that are partly embracing Sustainability in their mission. Innovations for this domain could involve expanding activities to expose light green students to sustainability more in their educational development.
- The outer layer is the **grey** domain that includes activities and actors at VU Amsterdam that are not embracing Sustainability in their mission (yet). Innovations for this domain could involve introductory activities to inspire grey students to address sustainability more in their educational development.

In short, there are programs, departments, students and/or teachers that are already very sustainability-minded and others that are not. In the efforts to realize Sustainable education at VU Amsterdam we must create a movement/community and try to involve every aspect of the organization (including the less green ones). In doing so we should enable teachers to do something with sustainability and give them the tools to implement it in their education.

However, there is a broader context we have to acknowledge as well. In today's individualistic society and precarious economy, the responsibility is fully on individuals shoulders for securing and maintaining employment and employability which leads to constant pressure for self-improvement and self-optimization. Students' choice for studies and career is often based on extrinsic and not intrinsic values and interests. Our education system doesn't emphasize helping students figuring out their calling. When the pressure is high the motivation for studying is not intrinsic. These stressors increase the chance on burnout, anxiety and depression among students. We should, therefore, help students with these struggles and sustainability could be a means of how to do this.

Community Service Learning

An example of green minded education is Community Service Learning ([CSL](#)). This is a form of education in which students use their academic skills to solve currently existing social issues. With Community Service Learning students use their academic knowledge and skills to contribute to solving societal problems. By doing so, students are closely working together with societal partners. Currently, an alliance focused on sustainability is set up to collect questions of societal partners on the theme sustainability to start new student projects.

3.3 Sustainability education goals

1. In 2025, we educate student leadership for sustainability
2. In 2025, our teachers show leadership for sustainability
3. In 2025, all VU study programs are sustainable

The goals 1 and 2 will be tackled by the Sustainability Leadership HUB. This HUB will have a focus on students and teachers. The goals will be described below.

Sustainability Leadership HUB: In 2025, we educate Student leadership for sustainability

The objective of the Sustainability Leadership HUB is to create and empower a purposeful, thriving and sustainable VU community that has the organizational, community-wide and psychological resources to take a leadership role in working towards a sustainable future. For the students, the

main aspect of the Sustainability HUB is the training program. This program has the following aspects:

- A) Awareness-raising about SDG's
- B) Through a process of facilitated self-reflection and training, we support students in finding a sense of meaning, purpose and cause larger than themselves

Connecting with one's values and working toward them helps people lead authentic lives and improves their well-being. We support students in becoming leaders of sustainability by enabling them to contribute to society. We support students in building a community by connecting them with like-minded others. We support students in exploring meaningful career opportunities by connecting them with organizations and professionals who work in the (SDG) areas that they want to work on, and put them 'on track'. We support students in building psychological resilience in working towards social change and simultaneously building sustainable careers.

Moreover, this approach can lead to interesting collaborations with the community, businesses, NGO's and other organizations. We generate a dialogue with organizations that (want to) work towards SDG's and sustainability. This way, we will get to know their needs from education (i.e. what skills they would need students to develop through education) to work towards sustainability goals effectively as future employees. The organizations can indicate what research topics they would want to have studied by thesis students. We will train a generation of students that will have awareness and understanding of sustainability topics and skills, such as circular economy skills, that can help companies to work towards these goals (internships, volunteering). We will directly link organizations with potential, well-trained future employees. Doing so, will create synergies and helps organizations' sustainability efforts scale by offering this networking platform & offering students' energy that can be channelled into organizations' work toward social change.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Start with first course implementation of sustainability leadership education for students • Resource calculation and assessing the feasibility of the Sustainability Leadership HUB 	2020-2021
<ul style="list-style-type: none"> • Develop a Sustainability Leadership course/program for students • Develop a Sustainability A broader mind for business program • Set-up the Sustainability leadership HUB • Build internal and external partnerships • Develop E-lectures on the SDG's together with Aurora partners 	2021-2022
<ul style="list-style-type: none"> • Connect students, staff and teachers through the Sustainability Leadership Hub community • Expand sustainability education offer further • Expand collaborations with partners by building alliances 	2023-2025

Sustainability Leadership HUB: In 2025, our teachers show leadership for sustainability

The VU Amsterdam Sustainability Leadership HUB would offer deliberative workshops to help different departments across VU Amsterdam to integrate sustainability and community service

learning into education. Based on deliberative & participatory democracy methodologies, we would create a platform with VU staff for VU staff to:

- Co-determine what sustainability means for departments (and VU Amsterdam overall) & how academic work can be re-designed to create the conditions for social sustainability (health & well-being) for VU staff
- Make sense of the UN SDG's for their areas of expertise and teaching, and what phenomena they represent in their courses
- Connect courses with societal and environmental challenges to raise consciousness and increase a sense of civic responsibility
- Build a community around sustainability goals & mobilize VU staff
- Translate VU strategy to an actionable strategy for education in different departments and areas
- Co-create sustainable educational tools and resources for general education purposes & particular study areas based on workshop outcomes (& integration into existing resources)
- Integrate sustainability goals into learning lines for study programs (through the programs working toward sustainable citizenship)
- Generate tools and techniques that facilitate the students' learning of 21st-century skills (critical thinking, communication skills, etc)
- Learn blended learning methods from experts for sustainable education

We offer teachers support to turn their education sustainable (resilient & future proof) in various ways:

- Digitalization of courses by offering blended learning expertise (to be resilient to external events & shocks like the covid-19 crisis)
- Tuning in to the changing societal, economic, environmental and political context & being responsive to contemporary problems and challenges with education
- Being responsive to students' needs and concerns
- Training students for sustainable careers & labour market
- Being in touch with society, community partners, non & for-profit (sustainable) organizations etc. – being responsive to their needs (e.g. developing needed skills through education)
- Being in touch with sustainability public discourse – connecting, understanding, responding

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Help teachers to sustainably (re)design their course by piloting workshops for teachers 	2020-2021
<ul style="list-style-type: none"> • Expand the number of sustainability workshops for teachers • Build up a database and toolkit for teachers on how to include sustainability in courses • Create the Sustainability Leadership HUB network by finding the "heroes" of the faculties, teachers and students, who have a passion for sustainability. • Look for opportunities to collaborate with educational partners (both internally and externally). 	2021-2023
<ul style="list-style-type: none"> • Look for opportunities to scale up and implement structural change. For example by integrating Blended Learning, CSL and sustainability in education programs for teachers. 	2023-2025

Making all VU study programs Sustainable: In 2025, all VU study programs are sustainable

The climate crisis will bring a fundamental transformation of the economic system, and thereby of the employment market. The most obvious example is that the production and use of fossil fuels has to be phased out quickly; this requires a complete reconstruction of the energy and transportation sectors, with all adjacent industries. This, in turn, requires speedy and far-reaching adaptations in all other connected sectors as well, most notably the financial and insurance sectors. In short, this transformation will affect all students of all study programs soon.

VU Amsterdam educates its students based on yesterday's economic system and employment market. Much of our student's education will be outdated already within this decade. Too many of our students are trained for employment in jobs and economic sectors that will disappear soon. VU Amsterdam should not educate students for dead-end jobs and, thus, should "future-proof" the education it offers to its students. Therefore, the climate crisis should be mainstreamed in all programs and this should be incentivized with earmarking budget and staff hires. Moreover, sustainability should be integrated as a learning objective in all courses.

It is therefore needed to develop an implementation of a yearly "future-proof assessment". The assessment is based on an organizational assessment based on multiple indicators. All sustainable courses will be shown in an SDG-dashboard.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none">• Collaboration within the Aurora Alliance on working on the assessment of courses using the SDG's as a framework• Research existing systems for sustainable education certification, identification of necessary improvements and identification of external partners for development/improvement of certification system.	2020-2021
<ul style="list-style-type: none">• Development of sustainability indicators (following the SDG's)• Pilot assessment of courses	2021-2022
<ul style="list-style-type: none">• Creating an Aurora SDG dashboard in which sustainability courses are displayed• All VU Amsterdam study programs are assessed• Programs that do not address sustainability are encouraged to do so	2022-2024
<ul style="list-style-type: none">• All study programs are assessed and all outcomes are published• SDG education dashboard is used in VU external/marketing communication• Study programs that do not address sustainability are obligated to include sustainability• Assessment criteria are updated based on previous experience and with increasing ambition	2024-2025

4. Research

4.1 Introduction to Sustainability research VU Amsterdam

Transformations to Sustainability in research has two sides. Firstly, we need knowledge (hence research) on the material (technical), social and cultural aspects of climate change, depletion of resources, refugees and such issues as well as the solutions science can develop to mitigate negative effects and redirect processes of change in the direction of sustainability (sustainability research). Secondly, we need to create sustainable research practices and communities, organized in a collaborative, inter-and transdisciplinary way that can form a sustainable ecology to work in, in material, social and cultural terms (sustainable research).

These two sides of Transformations to Sustainability are, of course, closely connected. When VU Amsterdam contributes to sustainability we include the criteria for good research, such as sound methodologies and societal relevance. The green team research cluster emphasizes the ongoing interaction between theory and practice, between academia and civil society, collaborative and participatory research methodologies. Teenagers, students, farmers, yellow vests, in other words, “we the people”, are asking to hear their voices and take them and their world seriously. Sustainability is no longer only a matter of top-down, market and state, but also bottom-up. Therefore, the entire university needs to engage with sustainability research in terms of objectives, methods and research careers.

The green team research cluster has focussed on Sustainable research. This conveys the sustainable ecology of the VU Amsterdam community, that is, the conditional aspects in which research on sustainability can flourish. However, here we start with the knowledge-generating research related to Transformations to Sustainability.

4.2 Current sustainability research at VU Amsterdam

4.2.1 Sustainability research

Sustainability related research at VU is organized in the Amsterdam Sustainability Institute ([ASI](#)), founded in 2019, that has the status of iOZI (inter-faculty research institute). ASI is connecting more than 200 researchers across seven faculties. ASI focuses on interdisciplinary innovation and societal impact and valorization. With minimal funding, it has already supported 16 innovative interdisciplinary and inter-faculty research seed money projects, resulting in jointly organized workshops, publications and new acquisition activities. ASI is the perfect platform for further developing interdisciplinary research for Transformation to Sustainability.

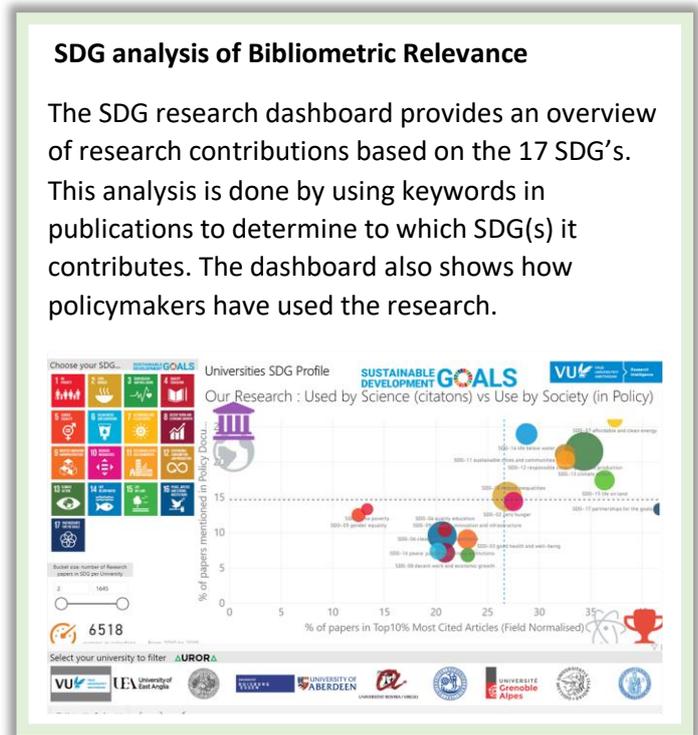
The VU strategy 20-25 also outlines four profile theme’s on which VU Amsterdam wants to show distinct academic focus and excellence. One of these themes is Science for Sustainability ([S4S](#)). ASI is leading the sustainability research within the profile theme S4S.

4.2.2 Sustainable research

To enhance the success and the strength of the VU Amsterdam Sustainability research we need to develop sustainable research practices and communities to form a sustainable ecology to work in, in material, social and cultural terms. What is needed is a culture and strategy that values focus on inter-and transdisciplinary work, supports colleagues in building the necessary personal networks, provides life-long learning opportunities and creates stable funding structures to develop excellence and impact. Building blocks for such a sustainable research ecology are already available.

A low-hanging fruit is the development of a VU-wide database of research related to the SDGs (at the level of specific SDG targets and indicators). Related, VU Amsterdam could easily develop a dedicated website on Transformations to Sustainability showcasing the most important disciplinary and interdisciplinary projects and results. Furthermore, in terms of communicating our existing world-class sustainability research, VU Amsterdam might produce (possibly with the help of students) pod-casts or short knowledge clips on all SDGs are VU-research, introducing not only the themes and projects but also the people and faces.

To create a sustainable research ecology in and around VU Amsterdam means taking into account climate impacts of our research practices, taking responsibility for aligning research with societal needs, and optimization of inter-and intra-disciplinary knowledge use within VU research community and transdisciplinary utilization across stakeholder communities.



4.3 Research goals:

- In 2025, our research activities are climate positive and do not generate environmental harm.
- In 2025, our sustainability research is supported by good management practices and professional services, a transparent assessment system that values interdisciplinary activities, and sufficient time to engage in collaborative research.
- In 2025, our research is focused and well-profiled (both nationally and internationally), and is generating societal impact via inter-and transdisciplinary collaboration organized in the Amsterdam Sustainability Institute (ASI).

Climate positive research: In 2025, our research activities are climate positive and do not generate environmental harm.

Sustainability research should reflect key VU values and identity. The climate impact of our research practice should therefore be reduced. We should aim for making all VU research activities climate positive and do research in a sustainable way. We should try to prevent CO2 output and reduce the CO2 output related to research activities. Besides, we should compensate for the CO2-output of our research activities. The funding generated by the compensation will be placed in a VU-carbon fund. The fund will invest in visible projects at VU Amsterdam.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Creating a VU-carbon fund that invests invisible and attractive projects at VU Amsterdam • Review sustainability of research practises at the VU Amsterdam 	2021-2022

- Creating in all ASI-clusters at least one covenant of we the people with all involved. This covenant refers to a promise between people to learn to take responsibility for a shared future, even or especially if they have conflicting interests in the present. The covenant provides a more bottom-up governance approach. 2022-2024
- Implement sustainable research practises
- Develop a more diverse and more balanced way of recognizing and valuing, which does justice to everyone's talent and which also distributes the workload/workload more widely 2024-2025

Sustainability research activities are supported: In 2025, our sustainability research is supported by good management practices and professional services, a transparent assessment system that values interdisciplinary activities, and sufficient time to engage in collaborative research.

We make the sustainable societal impact of research carried out at VU visible. The criteria for sustainable research and societal impact are integrated into the evaluation of researchers performance. Moreover, sustainable research methodologies are integrated into all research projects (e.g. Open science). Besides, we should address the interlinkage from practice to theory (and vice versa) research and see how to make this more sustainable (and rewarding for the researcher).

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • The bibliometric review method on the classification of research on the SDG's will be developed further in collaboration with the University Library VU • Exploring possibilities of the VU funds providing sustainable research funding for SDG-related research • Definition of criteria for sustainable societal impact in all fields of research 	2020-2021
<ul style="list-style-type: none"> • Develop guidelines/good practices for inter-and trans-disciplinary research: <ul style="list-style-type: none"> ○ what does inter-and trans-disciplinary research look like for different fields? ○ What "numbers" can be used to assess this? • Results on SDG related research will be shared openly with society • Evaluation and communication of research performance 	2022-2024
<ul style="list-style-type: none"> • Develop research audits/SEP and/or international rankings, possible qualitative measures for the performance of researchers (to complement quantitative measures): "narrative", involvement, engagement 	2024-2025

Our research is focused and is generating societal impact: In 2025, our research is focused and well-profiled (both nationally and internationally), and is generating societal impact via inter-and transdisciplinary collaboration organized in the Amsterdam Sustainability Institute (ASI).

We will increase VU-wide inter-faculty interdisciplinary research on sustainability via the ASI. One of the ways of approaching this is by positively stimulating researchers to generate societal impact. Therefore, we will set-up the VU Amsterdam Sustainable Research/impact/education team Prize. This could be linked to a VU Internal Ranking. This classifies each VU Faculty (Department or Unit) on a scale of sustainable research. This internal ranking will provide a prize to the most sustainable Faculty/Department/Unit in an award ceremony while also classifying the rest from the most to the least sustainable. The internal competition will be a way to improve sustainability practices and the environment (ecology).

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Formation of the Amsterdam Sustainability Institute • The profile themes are linked to distinct SDG's • Profiling sustainability research via thematic clusters and dedicated outreach and impact activities 	2019-2020
<ul style="list-style-type: none"> • Link researchers to sustainability local issues (on-campus) • Creating the criteria for a sustainability Team prize 	2020-2021
<ul style="list-style-type: none"> • Structural link between the sustainability operations of the VU and ASI researchers • Annual Sustainability team prize ceremony 	2021-2025

5. Knowledge transfer

5.1 Introduction to Sustainability Knowledge transfer VU Amsterdam

Sustainability is about environmental, economic, human, cultural and societal aspects. We, therefore, determine our success in achieving our sustainability aspirations in terms of our contribution to SDGs. Societal impact within the SDGs cannot always be reached through conventional business models. Other approaches in terms of the knowledge transfer process in the domain of partnerships, politics, public, social enterprise and NGO are therefore needed. The culture and thinking of VU Amsterdam scientists and teachers need to further evolve to be successful in knowledge transfer.

Knowledge Transfer is the process to reach impact in society (economic impact and/or societal impact) from scientific results (research and education). Knowledge Transfer is one of the core activities of the university and has many shapes and forms. Research can result in a concrete service and/or product that can be referred back to society. See the example of Climecs in the box on the right.

Knowledge Transfer can, for example, also be expressed by creating (online) lectures that are focussed on a (large) non-academic audience. Within the Aurora network, teachers give [SDG-lectures](#) that are then accessible for all.

These examples give a small view in the wide variety in which Knowledge Transfer can be expressed. It should be made clear to all scientists (and students) how to handle these process of knowledge transfer itself in a Sustainable and Socially Responsible manner; Socially responsible knowledge Ttransfer.

The sustainable knowledge transfer process should be implemented in an environment where the scientific integrity and independency is save guarded, potential partners have equal opportunity to collaborate with us and should be judged on set sustainability values and criteria. Moreover, research results should be broadly shared and scientists and teachers (individually and on a group level) should be valued and rewarded for knowledge transfer activities. Those employees to whom the process is a good fit (personality, skills, interests, etc.) are being stimulated to develop themselves further in this area. All of these activities and successes of sustainable Knowledge Transfer are communicated strongly, both internally and externally.

5.2 Current sustainability knowledge transfer at VU Amsterdam

VU Amsterdam is a very societally engaged university. The VU Amsterdam community and campus are strongly connected to society. Knowledge transfer is one of the key ways in which VU Amsterdam affects society. VU Amsterdam, therefore, has great potential that should be utilized more effectively. To do this, it is needed to have a uniform vision and approach to sustainable Knowledge Transfer. It should be made clear what the benefits of sustainable Knowledge Transfer are and it should not be viewed as an additional task. Teachers, researchers and students should, therefore, be assisted and empowered in engaging in Knowledge Transfer activities.

Climecs

This is an academic start-up that provide experimental setups in which the effects of climate change can be tested. They collaborate with the department of ecology of the Beta faculty. See more Sustainability related academic start-up from the Demonstrator Lab VU Amsterdam [here](#).



Also, the VU strategy 20-25 includes the priority area Entrepreneurial and the ambition impact through education and research activities. This shows the importance of Knowledge transfer within the strategy. Several projects have already been set in motion. One of these projects is the [Start-up village](#) on the VU campus. Students and employees can get the possibility to start a business in the start-up village. We will therefore work closely with the initiators and secure a focus on sustainable Knowledge Transfer.

Moreover, VU Amsterdam has started with the initiation of the Sapiens project. This is a collaboration with Naturalis and aims to set-up a museum and science centre at Zuidas Amsterdam. The subject of this museum will be the Anthropocene. Researchers, students, young-professionals and many other sustainability-related stakeholders will cooperate in [Sapiens](#). The Amsterdam Sustainability Institute will be the leading party from the VU Amsterdam.

Sapiens

Sapiens will start from 2021 and will be a unique place where young people and scientists come together to work on sustainability projects. Sapiens will be a lab, museum, think tank, platform and workplace. At Sapiens we aim to accelerate solutions for societal issues.



The Start-up village VU and Sapiens will be important ways in which VU Amsterdam expresses its efforts in (sustainable) knowledge transfer. They, therefore, complement the broader Knowledge transfer goals mentioned below.

5.3 Knowledge transfer goals:

1. In 2025, there are clear metrics in place to measure impact with respect to the SDGs and the results are communicated internally and externally and successes are widely celebrated
2. In 2025, all of the VU Amsterdam scientists and teachers are/feel empowered with respect to practicing Socially responsible Knowledge Transfer.
3. In 2025, all students are empowered with respect to Sustainability and their future career; they come back to VU Amsterdam to further grow their skill and understating of this topic during their career and they bring colleagues along.

Sustainable Knowledge transfer Compass: In 2025, metrics are in place to measure impact with respect to the SDGs and the results are communicated internally and externally and successes are celebrated.

Knowledge transfer is essential in the process to come to societal impact. However, it can be unclear what sustainable Knowledge transfer is. Therefore, we should set-up a guide that helps identify sustainable knowledge transfer. This can assist employees in further developing knowledge transfer related skills and inspires existing knowledge transfer projects to be more sustainable. The success of knowledge transfer should be identified and celebrated.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none">• Setting up the sustainable Knowledge transfer compass by identifying (SDG) indicators that assess sustainable impact/knowledge transfer and linking these indicators to research and education in collaboration with the Aurora Alliance• Set-up SDG/impact reporting workshops for start-ups at VU Amsterdam	2020-2021
<ul style="list-style-type: none">• Making research outcomes widely available and indicate which external partners have been connected to the projects• Setting up a (digital) platform for sustainable impact at VU Amsterdam	2022-2024
<ul style="list-style-type: none">• Reporting and communicating on the progress and results on sustainable impact• Development of (SDG) impact dashboard VU Amsterdam	2024-2025

Empowering Teachers and scientist: In 2025, all of the VU Amsterdam scientists and teachers are/feel empowered with respect to practicing socially responsible Knowledge Transfer

Knowledge transfer should be embedded in the regular concern of VU Amsterdam. Knowledge transfer, therefore, has to be accessible and attractive for employees to engage in. Thus, knowledge transfer should be acknowledged and valued similarly as education and research are evaluated in the annual employment conversations.

Moreover, we should be transparent in the amount of work that is needed to engage in knowledge transfer effectively. Efficient collaboration, realistic expectations and the necessary support are indispensable. Exchange of best practices between departments, faculties and colleagues can be useful in this.

It has to be acknowledged that not everyone will experience the same amount of satisfaction and success with knowledge transfer. Knowledge transfer should be evaluated in proportion to the employee's orientation towards this goal. It is, therefore, important not to ask the same knowledge transfer effort from every employee. For some employees, knowledge transfer can provide a new impulse to education and research, so it may be useful to combine knowledge transfer with education and/or research. Also, a knowledge transfer project often requires a different approach than education and research, such an alternation can provide renewed inspiration. Moreover, valorisation projects can provide attractive research or internships possibilities for students.

Through knowledge transfer, academics can implement their work more practically and be impactful on society. Various knowledge transfer projects show that the input that is gained during a valorisation project often provides input for new research or education. By properly planning projects and seeking cooperation with education or research, a knowledge transfer project can deliver more impact than just social impact or a financial impulse.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Setting up a platform/community in which best practices can be shared between departments, faculties and colleagues. • Teachers and researchers are encouraged to set-up projects in Sapiens 	2020-2021
<ul style="list-style-type: none"> • Training employees in knowledge transfer • Sapiens hosts several academic and non-academic events 	2022-2024
<ul style="list-style-type: none"> • Motivated researchers or research groups get time allocated to focus on knowledge transfer • (Sustainable) Knowledge transfer is integrated into the evaluation process of the employee 	2024-2025

Empowering students: In 2025, students are empowered with respect to Sustainability and their future career; they come back to VU Amsterdam to further grow their skill and understating of this topic during their career and they bring colleagues along.

We should allow students to start to learn about knowledge transfer at an early stage in their studies. An increasing amount of students finds it important to develop practical skills and competencies. Besides, it is found that the current students find it important to make "impact". Therefore, the process of creating impact needs to be part of the teaching/courses and (sustainable) knowledge transfer should be an academic skill.

Scientific education is changing. Research can be perceived as dull in the eyes of students and is not the ultimate goal for most of them. Students want to have an effect on society with their work. It is therefore also important that students understand that research is not drowsy and that you can have an influence on society. It is important that students learn to have an impact on society through research and that it is more than publishing in a scientific journal. Additionally, young people find sustainability an increasingly important topic and will also include this in their choice of study and university. It is therefore also important for VU Amsterdam to acknowledge this and focus on it more.

Knowledge transfer should, therefore, be an academic skill. During scientific training, students become "responsible citizens", it is therefore important that students learn to valorise sustainable and can have a sustainable impact on society. This can be done by including it in the curriculum (through Community Service Learning and/or A Broader Mind), but it should not be an obligation. We should therefore create a place where students can practise sustainable knowledge transfer (for example in the start-up village).

CarbonCancel

[CarbonCancel](#) is a great example of a sustainable student project. Two students built a smart calculator that determines your carbon footprint. CarbonCancel then helps you reduce and offset your carbon footprint. In doing so, you can "cancel" your carbon footprint.



Target description and schedule

Description	Projected moment
<ul style="list-style-type: none">• Promoting and incorporating sustainable knowledge transfer in curricula• <i>Student consultancy HUB</i>: Digital platform where sustainability issues from society are gathered and are linked to students.• Students are encouraged to set-up projects in Sapiens and the Start-up village.	2020-2021
<ul style="list-style-type: none">• Setting up internships for students to work on sustainable impact projects (at the VU campus and outside of it). This will be done in collaboration with the Sustainability Leadership Hub.• Rewarding and engaging students by organizing the Sustainability hackathon VU Amsterdam• Reward a prize for the most sustainable student start-up/initiative• (Sustainable) Knowledge transfer is an academic skill	2021-2025

6. Organization

6.1 Introduction to Sustainability organization at VU Amsterdam

The sustainability of VU Amsterdam, as an organization, relates to its operations and premises. A sustainable VU organization means that the VU organization supports sustainable research, education and knowledge transfer, while positively impacting the ability of our future selves and generations to meet social needs. To meet social needs, we need at present to have a positive impact on the natural environment, and we need to contribute to a fair and sustainable economic system. A sustainable VU organization must show ambition, collaboration and leadership.

- **Ambition.** A university is a place to be innovative, to aim for goals and undertake actions that most have not yet thought of. The VU, therefore, sets ambitious goals. Ambitious goals go, where possible, beyond what is legally required and see political and multilateral agreements as a minimum. Ambitious goals like the Paris Agreement aim for more than legally required.
- **Collaboration.** The sustainability goals of VU Amsterdam relate to each other. It is therefore needed that different departments collaborate. For instance, the new Green Roof on the main-building has been set-up to retain rainwater and is also used as a research and education location. The real-estate managers and researchers of the VU have worked together to realize this. The sustainability of the VU Amsterdam also relates to the sustainability of its external and internal surroundings. It is therefore often necessary to collaborate externally and internally.
- **Leadership.** VU Amsterdam should show leadership by inspiring and motivating others to achieve more. Internally, we need motivational leaders to promote the achievement of sustainability goals. We can also be a leader by achieving ambitious goals and by collaborating with external parties.

Green Roof main-building VU

The VU has a [blue-green roof](#) on the main building. The roof is used for operational, research and education purposes. For example, hydrology students study the effects of the roof on the local climate and on peak water discharge.



We can make this more specific with the example of food and drink. The VU can show leadership by making vegan/vegetarian options the university standard. It is ambitious because most people are not vegan. However, setting this as the standard can inspire and motivate change internally. According to the American Dietetic Association (2009), many consumers are interested in vegetarian diets – so we can speculate that they will eat more vegetarian options if these are the default. The VU can also show external leadership here. Setting vegan as default, and focusing on local food, can provide some support towards a more plant-based food production system. A mainly plant-based food production, according to the European Commission (*A Sustainable Europe by 2030*, z.d.), would greatly reduce GHG emissions; it would also free up land for vegetation and carbon uptake (Stehfest

et al., 2009), and plant-based diets may increase health ('Position of the American Dietetic Association', 2009).

6.2 Current situation of Sustainability organization at VU Amsterdam

In general, we can describe the current sustainability of the VU's organization as ambitious and showing leadership, and a little bit collaborative. The VU is ambitious in its strategy because it sets sustainability as one of three priority areas. The VU is also ambitious in its culture because there are numerous projects about sustainability that are developed by its people.

VU Amsterdam is a leader in the Netherlands. VU Amsterdam ranks high on the Times Higher education impact rankings and has ranked first place of Dutch universities in 2020 in a ranking performed by students (SustainaBul, since 2012).

The environmental impact of the VU is conveyed in a so-called "[Milieubarometer](#)". In this report (publicized annually since 2003), the carbon footprint, water usage, waste(water), commuting, emissions and many other key environmental factors are displayed in longitudinal graphs. This shows the overall environmental Campus Performance of the VU since 2003.

The Green Team Cluster Organization has put in great effort to formulate 57 goals for the VU to reduce the environmental impact of the VU in 2020 to 2025. The SDGs have been used to organize the goals. These 57 goals are formulated in the [Sustainable campus plan](#). In the following section, an overview of these goals will be provided. Please consult the sustainable campus plan for the extended explanation of the formulated goals.

The Green Team Cluster Organization strives to exchange of information, ideas, and best practices for achieving sustainable campus operations and furthermore integrating sustainability in research and teaching. The Green Team Cluster Organization has four operational priorities for achieving these ambitions:

1. to increase our impact
2. to expand our reach
3. to enhance community engagement
4. to increase our ability to adapt.

Times Higher Education Impact Ranking

The Times Higher Education Impact Ranking (*THE Impact Rankings 2020 by SDG*, 2020) indicated that VU Amsterdam scores second best in the world regarding climate action. This is measured by compiling research on climate action, environmental education, low carbon energy use and (a commitment to) carbon neutrality. It is possible that the VU's low carbon energy use and commitment to carbon neutrality is a best practice, but this cannot be inferred from the impact rankings.



6.3 Organization goals³

The main areas of focus for the immediate future on and around the VU Campus will be:

1. Energy and Climate
2. Food and Drink
3. Sustainable Procurement and Mobility
4. Greenery and Renewal

Each area of focus comprises several goals. The Green Team Cluster Organization appointed representatives from the different services of the VU to execute the targets. The targets are adopted by the different services and included in the separate annual plans and annual evaluations (VU's Planning & Control cycle) of the services. Moreover, the implementation of the Roadmap Sustainable Campus will be done in close collaboration with students and researchers. The cluster intends to find a researcher (and students) for each of the (suitable) targets in the roadmap.

Energy and Climate: towards a fossil-free university

In the Energy Masterplan 2035 the VU has set out the path to become a fossil free university in 2035. The masterplan includes all investments the VU is going to make to reach this goal. The plan is accorded by the University Board in 2018.

Also the VU will ban the use of solvents. Solvents can have a Greenhouse Warming Potential of over 20.000 times of carbondioxide. So it is very important to find alternatives for these solvents used in the production of PV-panels, LCD/LED-terminals, etc.

The VU has expressed an ambition to purchase 100% circular in 2030. The maintenance of all individual buildings is redesigned based on circularity principles. Keys are the rethink-step (R1), redesign (R2) and reduce (R3).

Energy reduction via increasing energy awareness and reduction of energy demand, together with internal users, are also steps to be taken further in 2020 to 2025.

VU works closely together with other Dutch universities on the Netherlands climate agreement. Therefore a roadmap is drawn which comprises of 14 VU-buildings and their carbon footprint as well as scenario's to decrease this footprint in these buildings.

Target description and schedule

Description	Projected moment
• Sustainable energy production	2020-2025
• Sustainable long-term maintenance plan for existing buildings (DMJOP)	2020-2025
• Netherlands climate agreement: Dutch universities roadmap	2020-2025
• Reduce energy demand	2020-2025
• Fossil-free campus	2020-2025

³ Looking beyond the goals. The VU Amsterdam should also strive further than reaching zero and focus on realizing a net Positive impact. This means that VU Amsterdam has no negative impact on the environment, and even has a positive impact on the environment. This also requires a change in the managerial mindset, from a linear approach to a circular approach (Ellen MacArthur Foundation, z.d.). Also, VU Amsterdam can also aim – in the longer term - for a net positive impact on the environment. We will keep this as a principle in addressing the different goals.

• Ban solvents	2020-2025
• Lower electricity usage of data and network infrastructure	2020-2025
• Increase energy awareness	2020-2025

Food and Drink: living for and with our planet

The VU plans to make vegan or vegetarian the preferred option in the choice of students and staff when visiting the canteen. Also in banqueting vegan or vegetarian food becomes the standard.

Furthermore projects are in place to promote regional produce. Food waste reduction is in place as well as making the campus a PET-free space (shops, canteens, vending machines, etc). Join the pipe water taps and Made blue water in vending machines is free of charge to the campus community. With these water taps the VU also sponsors free accessible drinking water for communities in several underdeveloped countries.

VU will promote fish (and fish products) from sustainable sources (MSC-certified) as part of the restaurant and banqueting demands.

Target description and schedule

Description	Projected moment
• Locally produced food	2020-2025
• Tackling food waste	2020-2025
• PET-free campus	2020-2025
• Vegan and vegetarian as standard option	2020-2025
• MSC-certificate for sustainable fishing	2020-2025
• Join the Pipe	2020-2025
• Made Blue	2020-2025

Sustainable Procurement and Mobility: individual contributions to a better world

Ambitious sustainable procurement will be implemented in 2021. In every purchase sustainability will be part of the decision making process in 5 different aspects:

1. diversity and inclusivity,
2. social return,
3. climate neutrality,
4. circularity
5. sustainable chain management.

Sustainable procurement is vital to many projects and sustainable goals, e.d. food and drink. Food and drink are outsourced at the VU Amsterdam and the renewal of these underlying contracts being a perfect moment to meet more ambitious sustainable requirements.

VU Amsterdam has a value chain, and close to VU Amsterdam, in its value chain, is transport to and from VU Amsterdam or VU-related activities. All of these transport movements should be zero-emission or compensated. VU Amsterdam can also spread awareness among its students, employees and partners, to increase sustainable mobility. Close collaboration with the Zuidas, the city of

Amsterdam, and the Dutch government can also increase broader willingness to move around without emissions.

The VU also promotes biking as the best way to commute. Together more additional capacity will be made available for recharging electric bikes, - scooters and -cars.

Target description and schedule

Description	Projected moment
• Sustainable procurement policy	2020-2021
• Sustainable business travel policy	2021-2025
• Stimulate people to take the bike to work ("Bike-mission")	2020-2025
• Improve Biking infrastructure	2020-2025
• Zero emission city logistics	2020-2025
• Covenant accessible Zuidas	2020-2025
• Sustainable Mobility	2020-2025
• Increase the number of charging spots for electric vehicles	2020-2025

Greenery and Renewal: making the VU a better place for everybody

Many actions are undertaken to make the VU Campus a better, healthier and more supportive place. The relevant actions benefit all students, staff members and visitors when using an improved learning and working environment. A few of the ambitious goals from the Roadmap Sustainable Campus 2020-2025 are mentioned in the following table.

Target description and schedule

Description	Projected moment
• Human Resources	2020-2025
○ Smoke-free campus (project has been completed)	
○ Woman in top-positions	
○ Sustainable employability	
• Student	2020-2025
○ Improve student well-being	
○ Inclusive excellence	
○ Life Long Learning	
○ Studying with dyslexia, disabilities and/or chronic diseases	
○ Increase the number of study spots	
• Collaborations	2020-2025
○ Realize/maintain top 5 position on the SustainaBul	
○ Organize Climate tables at VU Amsterdam and Zuidas	
○ VU Amsterdam Campus as Living Lab	
• Campus operations	2020-2025
○ VU Campus as a living lab	
○ Biodiversity increase	
○ Sustainable hub for building materials	
○ BREAAAM New Build: level excellent	
○ BREAAAM Existing buildings: minimum level past	

7. Implementation

7.1 Strategy implementation VU Amsterdam wide

The following paragraphs describe how the implementation of the sustainability roadmap is approached.

The Lead Sustainability VU (Ivar Maas) is responsible for the implementation of the Sustainability strategy of VU Amsterdam. The implementation of the Sustainability strategy is overseen by the Core team sustainability. The Core team includes a member of the board of the VU (Marcel Nollen), a dean (Maurits van Tulder) and a director of one of the services (Franc van Nunen). The Green team oversees the progress made within each cluster, searches for connections between projects and discusses overarching sustainability topics. The Green Team has the following members: the manager of the Green Office VU, a member from the University student Council (USR), a member of the works council (OR) and representatives of the clusters (i.e. Education, Research, Organization and Knowledge Transfer).

The cluster teams address the sustainability issues within its particular focus. The targets formulated for each cluster will be addressed by project teams within each cluster. At the start of each year, the clusters determine what they will be working on that coming year and what project team(s) are needed. These targets will be communicated to the VU community. Doing so we intend to include the VU community in the implementation as much as possible.

Funding for the implementation may come from the VU Strategy budget and/or the related service/faculty. This will differ per project. Each year the expected needed means will be calculated per cluster. The total required means will be presented to the strategy team VU. Note that the projects that are initiated by the Green team clusters should be adopted and eventually carried by or integrated into the "regular" operations.



Figure 5 Organizational structure of the Roadmap Sustainable VU

7.2 Enabling and reoccurring targets

To achieve the sustainability goals (people, campus and society) certain enabling targets and reoccurring targets must be realized/installed. This section will outline these targets.

University-wide sustainability platform. The first step in setting up the current roadmap was shaping the Green Team and its clusters. Maintaining the Green Team and the clusters is important for moving towards a more sustainable university. The Green Team will be the central spot where the overall sustainability direction of VU Amsterdam is determined. Besides, there are many people involved in the sustainability strategy. The work that is done by these people is of great significance.

We should recognize and reward these efforts. One way of doing this by gathering the (sustainability) VU community annually to celebrate all the great things that we have realized and are going to work on.

Green Ambassadors. To make sustainability an integral part of the entire organization, green ambassadors will be appointed. The Green Ambassadors Program of the VU will organize small groups/committees of employees and students, who are working on making their faculty or service more sustainable. These committee members will be called Green Ambassadors. Local sustainability issues can be addressed by the Green Ambassadors and best practises can be shared amongst the Green Ambassadors.

Communication. Communication (both internally and externally) is key in realizing sustainability ambitions. The broader VU community has to be mobilized for the efforts and therefore communication is essential. The website of VU Amsterdam has to be updated and sustainability should be a prominent part of it. Moreover, the projects and success of the Green Team should be made visible to the VU community. A communication strategy for sustainability will be created to streamline the way we communicate.

Reporting and surveying. By doing impact reporting, VU Amsterdam is transparent about the effect it has on the environment. This should be a part of the regular (annual) reporting procedures of VU Amsterdam. Also, being a sustainable university entails a certain mindset and sustainable behaviour of the people within the VU community. To track this, we will explore the possibility of creating a sustainability survey that could be sent out to the VU community.

Partnerships. Collaboration is needed to realize the targets. We should further build on our local partnerships (such as) with the Green Business Club, Amsterdam Economic Board and the Municipality of Amsterdam. Moreover, the collaboration with the University of Twente could also be extended. In an international context (within and beyond the Aurora Alliance) we should actively participate and broaden our sustainability-related contacts.

Target description and schedule

Description	Projected moment
<ul style="list-style-type: none"> • Formation of the Green Team and its clusters • Start the Green Ambassadors program • VU Sustainability website online • Communication strategy for Sustainability 	2020-2021
<ul style="list-style-type: none"> • Annual impact/integrated reporting • Sustainability survey VU community • Annual VU-wide Sustainability gathering • Build and expand our sustainability partnerships nationally and internationally 	2021-2025

8. Targets

8.1 Overview of Education targets

		2020	2021	2022	2023	2024	2025
Cluster	Overall Goal	Description					
Education	Eduation for sustainability	<ul style="list-style-type: none"> Start with first course implementation of sustainability leadership education for students Help teachers to sustainably (re)design their course by piloting workshops for teachers 	<ul style="list-style-type: none"> Develop a Sustainability Leadership course/program for students Develop a Sustainability A broader mind for business program Set-up the Sustainability leadership HUB Build internal and external partnerships Develop E-lectures on the SDG's together with Aurora partners 	<ul style="list-style-type: none"> Connect students, staff and teachers through the Sustainability Leadership Hub community Expand sustainability education offer further Expand collaborations with partners by building alliances 			
	Teachers for sustainability	<ul style="list-style-type: none"> Help teachers to sustainably (re) design their course by piloting workshops for teachers 	<ul style="list-style-type: none"> Expand the number of sustainability workshops for teachers Build up a database and toolkit for teachers on how to include sustainability in the course Create the Sustainability Leadership HUB network by finding the "heroes" of the faculties, teachers and students, who have a passion for sustainability. Look for opportunities to collaborate with educational partners (both internally and externally). 			<ul style="list-style-type: none"> Look for opportunities to scale up and implement structural change. For example by integrating Blended Learning, CSL and sustainability in education programs for teachers. 	
	Sustainable study programs	<ul style="list-style-type: none"> Collaboration within the Aurora Alliance on working on the assessment of courses using the SDG's as a framework Research on existing systems for sustainable education certification, identification of necessary improvements. Identification of external partners for development/improvement of certification system. 	<ul style="list-style-type: none"> Development of sustainability indicators (following the SDG's) Pilot assessment of courses 	<ul style="list-style-type: none"> Creating an Aurora SDG dashboard in which sustainability courses are displayed All study programs are assessed Programs that do not address sustainability are encouraged to do so 	<ul style="list-style-type: none"> All study programs are assessed and all outcomes are published SDG education dashboard is used in VU external/marketing communication Study programs that do not address sustainability are obligated to include sustainability in the course Assessment criteria are updated based on previous experience and with increasing ambition 		

8.2 Overview of Research targets

		2020	2021	2022	2023	2024	2025
Cluster	Overall Goal	Description					
Research	Climate positive research.		<ul style="list-style-type: none"> Creating a VU-carbon fund that invests in visible and attractive projects at VU Amsterdam Review sustainability of research practises at the VU Amsterdam 	<ul style="list-style-type: none"> Creating in all ASI-clusters at least one covenant of we the people with all involved. This covenant refers to a promise between people to learn to take responsibility for a shared future, even or especially if they have conflicting interests in the present. The covenant provides a more bottom-up governance approach. Implement sustainable research practises 		<ul style="list-style-type: none"> Develop a more diverse and more balanced way of recognizing and valuing, which does justice to everyone's talent and which also distributes the workload/workload more widely 	
	Sustainability research activities are supported	<ul style="list-style-type: none"> The bibliometric review method on the classification of research on the SDG's will be developed further in collaboration with the University Library VU Exploring possibilities of the VU funds providing sustainable research funding for SDG-related research Definition of criteria for sustainable societal impact in all fields of research 	<ul style="list-style-type: none"> Develop guidelines/good practices for inter-and trans-disciplinary research: <ul style="list-style-type: none"> what does inter-and trans-disciplinary research look like for different fields? What "numbers" can be used to assess this? Results on SDG related research will be shared openly with society Evaluation and communication of research performance 		<ul style="list-style-type: none"> Develop research audits/SEP and/or international rankings, possible qualitative measures for the performance of researchers (to complement quantitative measures): "narrative", involvement, engagement 		
	Our research is focused and is generating societal impact	<ul style="list-style-type: none"> Formation of the Amsterdam Sustainability Institute The profile themes are linked to SDG's Profiling sustainability research via thematic clusters and dedicated outreach and impact activities 	<ul style="list-style-type: none"> Link researchers to sustainability local issues (on-campus) Creating the criteria for a sustainability Team prize 	<ul style="list-style-type: none"> Structural link between the sustainability operations of the VU and ASI researchers Annual Sustainability team prize ceremony 			

8.3 Overview of Knowledge Transfer targets

		2020	2021	2022	2023	2024	2025
Cluster	Overall Goal	Description					
Knowledge transfer	Sustainable Knowledge transfer Compass	<ul style="list-style-type: none"> Setting up the sustainable Knowledge transfer compass by identifying (SDG) indicators that assess sustainable impact/knowledge transfer and linking these indicators to research and education in collaboration with the Aurora Alliance Set-up SDG/impact reporting workshops for start-ups at VU Amsterdam 		<ul style="list-style-type: none"> Making research outcomes widely available and indicate which external partners have been connected to the projects Setting up a (digital) platform for sustainable impact at VU Amsterdam 		<ul style="list-style-type: none"> Reporting and communicating on the progress and results on sustainable impact Development of (SDG) impact dashboard VU Amsterdam 	
	Empowering Teachers and scientist	<ul style="list-style-type: none"> Setting up a platform/community in which best practices can be shared between departments, faculties and colleagues. Teachers and researchers are encouraged to set-up projects in Sapiens 		<ul style="list-style-type: none"> Training employees in knowledge transfer Sapiens hosts several academic and non-academic events 		<ul style="list-style-type: none"> Motivated researchers or research groups get time allocated to focus on knowledge transfer (Sustainable) Knowledge transfer is integrated into the evaluation process of the employee 	
	Empowering students	<ul style="list-style-type: none"> Promoting and incorporating sustainable knowledge transfer in curricula <i>Student consultancy HUB</i>: Digital platform where sustainability issues from society are gathered and are linked to students. Students are encouraged to set-up projects in Sapiens and the Start-up village. 		<ul style="list-style-type: none"> Setting up internships for students to work on sustainable impact projects (at the VU campus and outside of it). This will be done in collaboration with the Sustainability Leadership Hub. Rewarding and engaging students by organizing the Sustainability hackathon VU Amsterdam Reward a prize for the most sustainable student start-up/initiative (Sustainable) Knowledge transfer is an academic skill 			

8.4.1 Overview of Organization targets

		2020	2021	2022	2023	2024	2025
Cluster	Overall Goal	Description					
Organization	Energy and Climate – towards fossil-free	<ul style="list-style-type: none"> • Sustainable energy production • Sustainable long-term maintenance plan for existing buildings (DMJOP) • Netherlands climate agreement: Dutch universities roadmap • Reduce energy demand • Fossil-free campus • Ban solvents • Lower electricity usage of data and network infrastructure • Increase energy awareness 					
	Food and Drink – our living planet	<ul style="list-style-type: none"> • Locally produced food • Tackling food waste • PET-free campus • Vegan and vegetarian as standard option • MSC-certificate for sustainable fishing • Join the Pipe • Made Blue 					
	Sustainable Procurement and Mobility – individual contributions	<ul style="list-style-type: none"> • Sustainable procurement policy • Sustainable business travel policy 	<ul style="list-style-type: none"> • Stimulate people to take the bike to work (“Bike-mission”) • Improve Biking infrastructure • Zero emission city logistics • Covenant accessible Zuidas • Sustainable Mobility • Increase the number of charging spots for electric vehicles 				

8.4.2 Overview of Organization targets

		2020	2021	2022	2023	2024	2025
Cluster	Overall Goal	Description					
Organization	Greenery and Renewal – a better place	<ul style="list-style-type: none"> • Human Resources <ul style="list-style-type: none"> ○ Smoke-free campus (project is ready) ○ Woman in top-positions ○ Sustainable employability • Student <ul style="list-style-type: none"> ○ Improve student well-being ○ Inclusive excellence ○ Life Long Learning ○ Studying with dyslexia, disabilities and/or chronic diseases ○ Increase the number of study spots • Collaborations <ul style="list-style-type: none"> ○ Realize/maintain top 5 position on the SustainaBul ○ Organize Climate tables at VU Amsterdam and Zuidas ○ VU Amsterdam Campus as Living Lab • Campus operations <ul style="list-style-type: none"> ○ VU Campus as a living lab ○ Biodiversity increase ○ Sustainable hub for building materials ○ BREAAAM New Build: level excellent ○ BREAAAM Existing buildings: minimum level past 					

8.4 Goals of the Green Team clusters of the Sustainability roadmap VU



9. References

- Camilleri, M. A. (2019). The circular economy's closed loop and product service systems for sustainable development: A review and appraisal. *Sustainable Development*, 27(3), 530–536. <https://doi.org/10.1002/sd.1909>
- Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. L., Verheggen, B., Maibach, E. W., ... Rice, K. (2016). *Consensus on consensus: A synthesis of consensus estimates on human caused global warming*. *Environmental Research Letters*, 11, 1
- Ellen MacArthur Foundation. (z.d.). *The Circular Economy In Detail*. Geraadpleegd 17 juni 2020, van <https://www.ellenmacarthurfoundation.org/explore/the-circular-economy-in-detail>
- Interface. (z.d.). *Carbon Neutral Floors*. Geraadpleegd 17 juni 2020, van https://www.interface.com/EU/nl-NL/duurzaamheid/carbon-neutral-floors-nl_NL
- IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
- A Sustainable Europe by 2030. (z.d.). [Text]. European Commission - European Commission. Geraadpleegd 4 juni 2020, van https://ec.europa.eu/commission/publications/reflection-paper-towards-sustainable-europe-2030_en
- Position of the American Dietetic Association: Vegetarian Diets. (2009). *Journal of the American Dietetic Association*, 109(7), 1266–1282. <https://doi.org/10.1016/j.jada.2009.05.027>
- Ripple, W. J., Wolf, C., Newsome, T. M., Barnard, P., Moomaw, W. R. (2019): *World Scientists' Warning of a Climate Emergency*. In *Bio Science* 70 (1), pp. 8-12. DOI: 10.1093/biosci/biz088
- Stehfest, E., Bouwman, L., van Vuuren, D. P., den Elzen, M. G. J., Eickhout, B., & Kabat, P. (2009). Climate benefits of changing diet. *Climatic Change*, 95(1), 83–102. <https://doi.org/10.1007/s10584-008-9534-6>
- Sustainabul. (z.d.). Geraadpleegd 5 juni 2020, van <https://sustainabul.com/>
- THE Impact Rankings 2020 by SDG: Climate action (SDG 13) methodology. (2020, april 17). Times Higher Education (THE). <https://www.timeshighereducation.com/impact-rankings-2020-sdg-climate-action-sdg-13-methodology>
- Ripple, William J.; Wolf, Christopher; Newsome, Thomas M.; Barnard, Phoebe; Moomaw, William R. (2019): World Scientists' Warning of a Climate Emergency. In *BioScience* 70 (1), pp. 8–12. DOI: 10.1093/biosci/biz088.