

## Bijlage III

# HZ University greening strategy

## Community diagnosis and design recommendations - Report summary

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This summary presents key findings from the research carried out by the minor students of Becoming Fit for the Future (BFF) - Circular Economy, in the second semester of the academic year 2021/2022. The research focuses on developing guidelines for the greening strategy of the HZ University of Applied Sciences through user-centred methodology, and recommendations for communications and engagement to increase community uptake in sustainability and greening.

A full version of the report is available.

## Method

The project consists of field and desk research focused on collecting qualitative data. Activities carried out for the field research involve:

- 1) Semi-structured interviews with key internal and external stakeholders: Martine van Ommen (HZ University Facility Manager), Carlien Nijdam (coordinator minor BFF and lecturer at Pabo), Adri Bimmel (head of HZ Canteen), and Ran Kok (coordinator at City Seeds Middelburg).
- 2) Rapid interviews with students. By approaching students in the canteen and asking for 'five minutes of their time' to talk about: ways they like to spend time outdoors, why and if they value green surroundings, their impressions of the University and ideas for making it more green and attractive. Questions have been quite general to enable interviewees to give spontaneous and honest answers. Afterwards we handed out flyers with more information, so the story of greening spread itself. We interviewed 47 students.
- 3) Unstructured interviews and discussions, with Viviane Smit (permaculture practitioner), Green Office members, and school janitors.
- 4) Brainstorm sessions
  - Session 1 with the pupils of Pontys in Goes who visited the HZ University in April 2022. This exercise aimed to think together with prospective students about what place they would wish to study at, from the perspective of sustainability, greenery, and convenience.
  - Session 2 with the minor colleagues and Water Management students involved in developing the food forest. This brainstorming session aimed to identify challenges to broad engagement in greening activities and develop ideas for communications and engagement activities to raise students' awareness about greening interventions at the University.
  - Session 3 with interns at the centre of the Expertise Biobased Economy at Avans and HZ, during a networking day at HZ University in June. The purpose of the workshop was to come up with practical ideas and solutions for greening, including biobased solutions, guided by our user-centred research and observations they made during the visit.
- 5) Two focus group sessions with teachers and research staff. This activity aimed to collect information from the second-biggest stakeholder group - the teachers and research staff of the University on their perceptions, needs and ideas on greening the university. We relayed

on voluntary sampling, participants were reached through cold mailing. Seven representatives of the academic staff took part in one-hour-long sessions.

Information collected over the research is analysed using a coding process and following principles of grounded theory – an inductive, interactive and comparative approach common in social research to generate a conceptual understanding of data. We coded and stored data in a research repository built in Airtable to reveal themes towards categorisation.

## Results

The results are categorised in three groups of stakeholders. The fourth category refers to communications and engagement, based on information received from all stakeholders.

### Staff and decision makers

The rationale for greening the University can be explained through the challenges this group of stakeholders put forward:

- Shortage of green, natural space around the facility, domination of paved surface (*'No green, only tiles, tiles, tiles everywhere'* - M. van Ommen) - an unfriendly place to spend time.
- Lack of proper outdoor teaching infrastructure and unfavourable external conditions (noise, scarcity of species for biology lessons), especially for training Pabo students.
- A place prone to climate threats, especially during warmer months - heat waves, no shadow, strong wind.

Two key functions are identified as critical for green interventions to serve: the social function and educational functions. A secondary function observed is the support of mental health and well-being of school community members. Interviewees put forward the following ideas for fulfilling these functions:

### Ideas for fulfilling the social function

- More and better sitting infrastructure in the green environment (*'There is no green environment to sit and enjoy, only a few benches - more relaxing spaces'* - M. van Ommen)
- More plants around the facility to make it a more pleasant place to spend time (*'People want more green spaces and attractive things, you want to sit on green, not tiles'* - M. van Ommen).

### Ideas for fulfilling the educational function

- Growing vegetables and different types of plants - for teaching biology, biodiversity, and nature in general - a type of content needed for teachers' trainers.
- Working with children - classes about movement and health (relevant for Pabo students)
- Any type of plants can be used in nature education and children's education (*'types of plants used for education can be very broad, flower bed, you can use everything', 'Vegetables - lessons about healthy food, and try to think with students how you can use herbs and plants, always useable'* - C. Nijdam)
- Reduction of the noise outside.
- Proper infrastructure for teaching outdoors. For example, an amphitheatre.

Ideas for fulfilling the health and well-being function

- Implementation of solutions for movement and health using existing infrastructure. For example, a climbing rope at the school facade (*'Infrastructure for movement and health with the fun factor, this is a very important factor'* - C. Nijdam).

## Students

Based on the interviews and brainstorming sessions with students, we learned how they like to spend their time outdoors, use the school's external premises and what they would like to see and have more of - both outdoors and indoors.

The most given answers to the question about what makes staying outdoors enjoyable are sunny weather (*'resting in the sun'*), green environment - trees and flowers, fresh air, sounds of nature (*'birds, trees, seagulls'*), and going to the beach or a forest. There are also unique answers like smelling flowers, beautiful skies, *'nice buildings, clean, hygiene, great ambience'*.

Function	Proposed ideas
<b>Social function</b>	<p>Increased, comfortable and more accessible sitting infrastructure, including benches, tables, power stations. Preferably placed in front of the school and made of natural materials. Good balance between shadowy and sunny places.</p> <p>Social infrastructure: hammocks, swings, places to organise picnics, an open-air terrace (i.e. on the roof).</p> <p>A designated area for smokers with bins to put out cigarettes.</p>
<b>Educational function</b>	<p>A quiet place outdoors for running classes that do not require using a screen.</p> <p>A quiet, shadowy area for studying.</p>
<b>Environmental function</b>	<p>Installation of insect hotels</p> <p>Improvement of biodiversity through planting wildflowers</p> <p>Installation of more solar panels for renewable energy production</p> <p>Rainwater storage solutions - the water could be reused in a lab or for toilets.</p>
<b>Health and well-being function</b>	<p>More greenery out- and indoors for better air quality and its relaxing properties. Trees, edible plants.</p> <p>More sports infrastructure outdoors.</p> <p>Healthy canteen more gluten- and lactose-free products, less meat.</p>

Table 1. Summary of ideas put forward by students for greening the HZ, categorised against functions.

The opinion of students about the schoolyard is that there are many stones, grey, boring and only a few trees and metal benches - *'We don't spend time here, it's boring, bricks, grey'*. Approximately half of the interviewees are enthusiastic about the idea of making the campus greener and eager to make suggestions on what can be done so that the place is more pleasant, attractive and encouraging to spend time outdoors more often. Students would like to see a more colourful environment with grass

and flowers (*'green - no tiles; grass, maybe meadow flowers'*). Interviewees also mention they need more sitting places (*'not a lot of options to sit, we're standing awkwardly'*), preferably made of a natural material as the metal benches are very hot in summer (*'benches are not comfortable, made of metal', 'more sitting spaces in the front, they got very hot in the summer'*). Some respondents say they like to sit on the grass, but usually with blankets. However, most opt for having a sitting infrastructure. There are a few that voice that sometimes the yard is too overwhelming due to many people - they would prefer having an option to go to a quiet, solitary place. Some students want more private sitting places in the shade, whereas others prefer to sit in the sun. They also raise the issue of noise, both when it comes to studying, having classes outdoors, and resting (*'It would be nice to have a nice, outdoor place to meet, calm, without noise', 'noise is an issue in the green corridors'*). Few students also observe that the interior could be more green - they argue that plants indoors provide better air and a more pleasant atmosphere.

#### Academic staff

We asked interviewees what the notion of 'greening' means to them. It turns out that greening is used interchangeably with sustainability and is not limited to physical interventions. When speaking about greening or sustainability, participants put much attention to communication, awareness-raising and behaviour change. They argue that not enough is done to build awareness of sustainable behaviour, and everything starts with the 'right mindset'. They point out that there is no right messaging to stimulate more sustainable behaviour and gave several ideas of what could be done. These are included in the communications and engagement guidelines in this summary.

In terms of communication, it was pointed out that the Green Office should be responsible for initiating, running and coordinating communication, making connections between departments, school organisations, and the management. Participants acknowledge that strategic decisions need to be made at the managerial level. However, they perceive the Green Office as a connector of the community, the board, and the initiator of sustainability-focused decisions. It is worth emphasising that the Green Office is currently just a student organisation which implies limited capacity and dependence on students' voluntary work. Considering that it has been three years since the Green Office was established, and the community's expectations and demand evolved over this time, so as the circumstances, it is worth considering re-evaluation of the initial objectives, structure and resourcing. The Green Office may fail to meet the community's needs and expectations in the current operating model.

Teachers and staff clearly show that greening should not be limited to outdoor interventions. They point out that students and staff spend most of their time indoors due to weather conditions, equipment and proper infrastructure. Therefore pleasant and comfortable conditions are even more important than greening outdoors. It is said that greening indoors is relatively simple and does not require significant resourcing, for example, placing more plants in classrooms and offices. Interviewees reason that plants and green surroundings have a beneficial effect on mental health, support concentration and relaxation, and purify the air indoors. One interviewee points out that there are different plans considered as to the future of the building - whether it should be renovated or the University will move to another building, leaving this one for another educational institution. Therefore, light-touch actions, like placing more plants indoors, would not strain the school budget as much as large-scale, infrastructural interventions, which are financially not viable if the University were to leave the place in the next few years.

Apart from greening indoors, teachers and staff acknowledge the value and importance of reshaping the outdoor facilities towards greener and more natural. They highlight that currently it is not a very convenient environment due to large paved areas, including parking lots and too few trees. When speaking about how the building and facility services can be more environmentally friendly, academic staff propose installation of more solar panels on the roof, implementing solutions for rainwater collection and recycling, reviewing the scheme of emptying trash bins (doing this less often to reduce the number of plastic rubbish bags use), introducing more healthy and organic food to the school canteen. We also asked teachers and staff how and if they would use the greener external premises for educational purposes, for example, teaching outdoors. It occurs as an interesting opportunity but only for specific teaching methods, like brainstorming or seminars. Classes that require content provision seem to not be very feasible for outdoor teaching, as they require students to take notes and the teacher to present the content. A proper teaching infrastructure should involve: a place secured from wind, harsh sun and noise, equipment for content presentation, comfortable sitting infrastructure, and moveable tables.

Another important point raised during teachers' and researchers' discussions regarding the school's sustainability concerns the school management's vision and actions. They argue that sustainability actions should be better embedded in the overall school strategy and concern every area of University operations, including educational programmes. This involves also the Green Office activities, and sustainability actions taken by other units, being connected to the overarching vision of the school development and supported by strategic decisions. One interviewee mentions that sustainable development commitments taken up by the University do not translate into practice and miss the clear goals that would be measured to validate progress. Another interesting observation concerned connecting research with one another (more integrated and cross-sectoral approach) and research projects with didactic work. It can be concluded that all sustainability-focused endeavours taken up by the Green Office, other units, or individual leaders, must be supported by the senior management and aligned with the organisation's development vision. Otherwise, people and units will remain siloed, and the results of their actions will not break through and scale up.

### Communication and engagement guidelines

Communication and awareness raising often was brought up by stakeholders as a critical area for making greening widespread. Drawing on our experience and observations, and findings from the research, we identified challenges within this realm: too little engagement of teachers in introducing greening and sustainability-themed activities to students, lack of transparent and broad communication about the engagement opportunities and greening activities, and little diversity of proposed activities. Based on the diagnosed challenges, we developed guidelines that relevant school bodies should consider to increase community's uptake in green initiatives and raise awareness. These recommendations are presented in Table 2.

### Meet people where they are

Use of the school's existing and well-functioning communication tools can be more effective than social media channels (like Instagram), where one has to fight for attention with all types of profiles functioning in the social media sphere. A common source of information which students use for personality credits is a dedicated page on the HZ Learn and the HZ Work Zone. Every student and staff member uses the school mailbox, so monthly newsletters about upcoming events and engagement initiatives can support information spreading. Those need to be sent out well in advance so that people can plan their time accordingly.

Better and more frequent use of school displays (screens, information boards) for events promotion.

Short, nudging informative notes distributed across the facility, especially those frequently visited, i.e. coffee machines. Those can inform on sustainability related data and be connected to students' and staff's everyday lives - i.e. information of your lunch carbon footprint, CO2 capture abilities of a single tree. Messaging should be positive to avoid shaming as it would be counter-effective.

### Be recognizable

The Green Office should introduce a recognizable branding, consistent with the HZ corporate identity, like HZ Sports and HZ Cult. This would facilitate communication and visually connect GO with the University, making recipients recognizing the content and its source quicker.

### Long term planning

Like HZ Sports and HZ Cult, the Green Office could issue a booklet that is widely distributed amongst students at the beginning of the school year and available at the school campuses. This initiative would make GO more visible and would raise students' awareness about what the school does in the sustainability domain, and what the involvement options are. This would also allow students to plan their engagement in advance and make more informed decisions about earning personality credits. It is understandable that not all actions, especially those organised by partner institutions, can be announced several months in advance. Monthly newsletters, and complementary social media channels can work well to fill the information gap.

Booklet requires long-term planning on the Green Office end, which can also be beneficial for the organisation in terms of systematising their work over the year.

### Make alliances

Involve teachers in greening actions, especially those in environmental sciences, as they have direct connection and authority with students. Depending on the curricula, some practical classes can be held outdoors, and HZ campus in Vlissingen can serve as a 'living lab'. What's more, as the University plans to rebuild a large part of the facility in the coming years, some of the nature based solutions could be designed by students and teachers of relevant faculties. Such an initiative would boost students' involvement and fulfil learning goals.

One of the important factors when engaging with young people is that the work is fun. Joint initiatives with HZ Sports or HZ Cult can potentially attract more people, also these traditionally disengaged in sustainability-related actions. Such alliances could also diversify the narrative as constant, 'green' messaging can be dull.

### Attract by value

Diversification of the engagement offer can attract those who are already into greening and sustainability, and so are more inclined for a long-term engagement. At the same time, this group is also more demanding - they value evidence-based content and hands-on experience. The key is to offer something they won't find in books and other educational sources, like workshops with experts and practitioners, masterclasses, seminars. The Green Office is a perfect avenue for providing these types of activities. Engaged students can in turn act as community champions for promoting the greening interventions and increase community uptake.

Table 2. Recommendations for communication and engagement activities for increasing school's community participation in green initiatives.

## Conclusions

Facility staff and greening leaders would like to create a pleasant, green outdoor area where students and staff spend time more often and eagerly use it for educational purposes. Thanks to rich vegetation and biodiversity, the outdoors area is climate change proof, provides relief from the heat, secures from noise, and supports water retention.

Students primarily would like the outdoor space to provide more possibilities for rest opportunities, preferably with friends. Interestingly, the environmental benefits that green solutions should provide were not observed by stakeholders and users, or at least it was not their immediate observation, even those inclined with sustainability topics. However, we argue that all interventions taken to make the facility more green and attractive should address the environmental challenges. Thus, the environmental focus plays a transversal function that should always be considered when greening solutions are designed and implemented.

Stakeholders often perceive greening as a complex and holistic approach, addressing not only external premises but also indoor areas. What is more, greening is often used interchangeably with sustainability. It reaches beyond the outdoor physical interventions: communications and awareness-raising activities, programmes to support behaviour change, embedding sustainability topics in educational programmes, and strategic decisions taken at a managerial level which are supported by adequate resourcing to pursue the sustainability goals. In physical meaning, greening activities should also encompass indoor spaces, as students and staff spend most of the year in classrooms, hallways and offices. Therefore, the institution leadership should look after creating an environment conducive to concentration and effective work through green solutions.

Greening pursuit should not be a mission fulfilled solely by one school unit or individuals. Actors such as the Green Office, facility manager, or engaged community champions should reach out and stimulate the wider community. Their work should be supported by a well-defined, goal-oriented, concrete vision for the University's development. This also means that leaders' work needs to be supported by proper resourcing and applying sustainability measures to every field of the organisation's operations. Through the genuine involvement of the facility's senior management and their buy-in for bold sustainable-focused decisions, bottom-up initiatives will scale up. To ensure the goals are achieved on time, regular audits should be carried out.