

Strategic Action to Develop a Sustainable University, Case Study Wageningen University & Research

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Abstract. Sustainability/Corporate Social Responsibility (CSR) is an important pillar of research and education at Wageningen University & Research (WUR). The ambition of WUR in this respect is clearly expressed in its mission - *'To explore the potential of nature to improve the quality of life'*. Within the domain of 'healthy food and living conditions', WUR wants to further expand her leading position. Wageningen University & Research has actively integrated sustainability into the organisation since 2008, first by bringing the facility services (operations) in line with WUR's ambition to lead in sustainability in education and research. Next, by developing ambitious adoptive policies on sustainable operations, necessary action was taken to imprint sustainability into the organisation. Simultaneously, WUR has put considerable effort in informing own staff and students as well as the broader world on these actions in a clear and transparent way (by adopting GRI reporting guidelines). From 2014, WUR has increasingly phased in Corporate Social Responsibility. As a result, WUR was granted the special 'sustainability' quality mark, during the institutional (education) accreditation in 2018.

1. Introduction

Wageningen University & Research (WUR) has sustainable development as a fundamental philosophy, as is expressed in the mission 'To explore the potential of nature to improve the quality of life'[1]. Besides operationalising sustainable development in its education and research, WUR also regards sustainability as an important principle in its operational management. This involves achieving a balance in the complex relationships between today's social, environmental and economic needs, without endangering future needs [2].

Promoting and achieving sustainability is considered as a continuous and on-going process. In this paper we give an insight into the steps taken within WUR to integrate sustainability in its policies and practices in the past ten years. We distinguish three phases: formulating a strategy (section 2), broadening the sustainability strategy towards social responsibility (section 3) and making plans for the near future (section 4). Section 5 will conclude with some remarks on what we see as our achievements and the lessons learned.

2. Strategy for sustainability

Within WUR a broad discussion on sustainability started in 2008. The direct motivation for this debate was a study carried out by PriceWaterhouseCoopers in July 2008 [3], which showed that sustainability at WUR is certainly present, but further developed in the primary processes of research and education than in operational management. Taking into account the diversity within WUR -as WUR is a collaboration of Wageningen University and the specialized institutes of Wageningen Research [4-5]- a new sustainability policy was formulated and approved in 2009.

2.1. Ambition: be a frontrunner in sustainability

The ambition of the new sustainability policy was to become a frontrunner in sustainability. Elements of this policy were:

- On all levels sustainability should be a self-evident aspect of decision-making.
- WUR aims at closer cooperation between primary processes (education and research) and operations.
- Proven technology is applied, but not against all costs, in order not to unnecessarily endanger on-going processes in teaching/research and operational management. However, this does not mean there is no room for innovative pilot projects and trials [6].

The next step was to organize a broad debate with staff and students to offer an opportunity to contribute their ideas about sustainable operational management. Meetings were held, focusing on seven sustainability themes: construction & energy, catering, procurement, waste, mobility, education & research and the sustainable employee. This resulted in the action plan entitled ‘Accelerating towards more sustainable operational management’. This plan described what was required in the short and long term in order to reach the desired ambition level. The short term (2010-2012) focus was to realise a number of actions linked to the 7 themes. The emphasis in the long term was to ‘consolidate’ these actions through changing the organisation itself and the attitude of the employees [7].

2.2. Show it: increasing visibility

The period 2010-2012 was dominated by the implementation of the sustainability action plan. At the end of 2012 all actions were evaluated and a critical look was cast at sustainability within WUR to determine how to maintain and demonstrate its sustainable quality. The main conclusion was that WUR made important steps in sustainable operations, but that these efforts were not commonly known by internal and external stakeholders. More emphasis was put on communicating about the sustainability efforts, by giving more insights in actions and results, i.e. by showing what we are doing. Sustainability reporting and participation in benchmarks were part of this process.

During the 2013-2014 period, the 'frontrunner' ambition specifically for operations was developed in more detail. In addition, results were achieved in terms of combining education, research and operational management and in terms of creating awareness of sustainability [8].

2.3. Involving students: Green Office

Part of the new strategy was to involve employees and students in the sustainability plans. ‘Green Office Wageningen’ plays a central role in this by supporting and connecting initiatives by students and employees. Green Office started in 2012 as a student initiative and is now a platform for students and employees with sustainable ideas and initiatives. Projects of Green Office focus on making operations of WUR more sustainable, in cooperation with WUR’s Facilities and Services.

Examples of projects and activities are the ‘Student Cooking Corner’, ‘Warm Sweater Week’, ‘Seriously Sustainable Week’, ‘Meatless Mondays and Reuse Revolution’. Green Office projects linked to education are Green Match (where students can find a vacancy for a thesis, internship or course project on a sustainable topic) and the Green Teacher Award [12].

Green Office Wageningen:
»We are the green heart of Wageningen University & Research. We make it an inspiring and 100% sustainable place to work and study. Our goal is to give all students and employees access to sustainable options in their workplace«

2.4. Reporting based on monitoring

Because of Dutch environmental legislation, WUR is obliged to report about its impact on the environment. Based on data gathered from monitoring processes, WUR reports on environmental aspects such as energy, water use and waste in its annual environmental report [9]. Since 2013 more and more sustainability themes were added to these reports, including biodiversity, procurement and transportation. In the next paragraphs an insight is given in the aspects energy, waste and CO₂-emissions.

2.4.1. Energy

The goal of the WUR energy vision is to reach energy neutrality in 2030: a sustainable energy provision with no CO₂ emissions. Policy is to reach 30% energy efficiency in 2005-2030. WUR generates renewable energy with wind turbines in Lelystad, bio-CHP’s, thermal storage on campus and solar panels. Results are shown in Fig. 1 [9, 10].

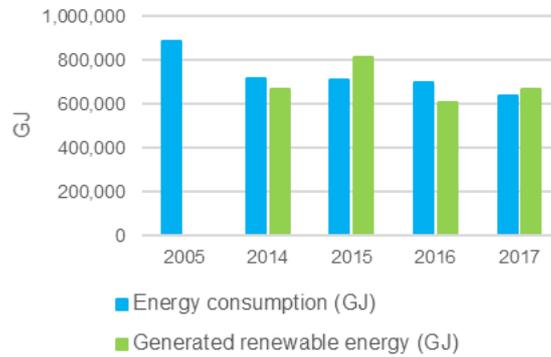


Figure 1. Energy consumption and generated renewable energy of WUR in 2014-2017 compared to 2005

2.4.2. Waste

WUR's approach to waste management follows a waste hierarchy. This means that waste management aims to give priority to the most environmentally friendly methods of processing [11]. WUR reports the three main waste streams: paper, hazardous, and residual. In addition waste is separated in 15 different waste streams, including plastics, organic waste and metals. In 2017 a separation percentage of 54% was reached. A processing method that is classified as a 'useful application' exists for 95% of WUR's waste. 40% of the waste is recycled, 55% is used for a variety of other useful applications. Fig. 2 presents the waste separation percentages in 2012-2017 [9].

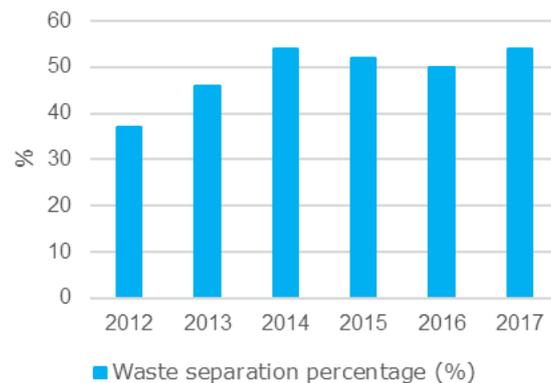


Figure 2. Waste separation percentages of WUR in 2012-2017

2.4.3. CO₂ emissions

To measure the impact of its activities on the climate, WUR started (as part of the sustainability action plan) to calculate a CO₂ footprint in 2010 to gain insight into its total greenhouse gas emissions. This created opportunities to formulate reduction targets as well as compensation measures. Comparison of the footprints in the period 2010-2017 enables WUR to specify effective measures for the reduction and compensation of emissions and to control the implementation of these measures. See Fig. 3 for the CO₂ emissions in 2010-2017 [9].



Figure 3. WUR's calculated CO₂ emissions and CO₂ compensation in kilotons, 2014-2017 compared to the reference year 2010

2.5. Transparency: GRI and benchmarks

In 2014, WUR started reporting according to the Global Reporting Initiative (GRI) in the WUR Annual report [13]. This means that reporting is aimed at being transparent about sustainability issues, human rights, governance and social well-being. The main reason to put such emphasis on transparency is to learn and reflect on how to further improve our performance.

Another aspect of being transparent about what WUR is doing on sustainability is participating in benchmarks. Currently WUR participates in the Transparency Benchmark of the Dutch Ministry of Economic Affairs, 'SustainaBul' (a ranking of Dutch universities, organised by the student organisation 'Studenten voor Morgen') and in the UI GreenMetric.

3. From Sustainability to Corporate Social Responsibility (CSR)

Since 2015 WUR started to include more social aspects in the sustainability strategy, in line with the ambition of the Strategic Plan 2015-2018: WUR acts as a socially responsible organisation and "We account for social aspects and ecological boundaries in our performance." [14]

Three pillars are important in WUR's approach on social responsibility:

- 1) do what you say and show what you do,
- 2) create awareness within and outside the organisation,
- 3) search for connections between research, education, value creation and operational management [15].

In the next two subsections we will explain the shift from sustainability towards corporate social responsibility and show the importance of CSR in research and education.

3.1. Setting the agenda for CSR

With a CSR agenda WUR highlights the social themes that will receive extra attention. The CSR agenda, which was first approved by the Executive Board in 2016, consists of 21 topics that were identified as important inside and outside WUR. By following the framework of the ISO 26000 self-declaration and the Global Reporting Initiative (GRI), WUR intends to work on relevant social and sustainable areas where it can make a difference. Every year WUR reports about the activities, achievements and changes of the CSR agenda. Fig. 4 shows the top 10 prioritized themes of the CSR agenda of WUR [13].

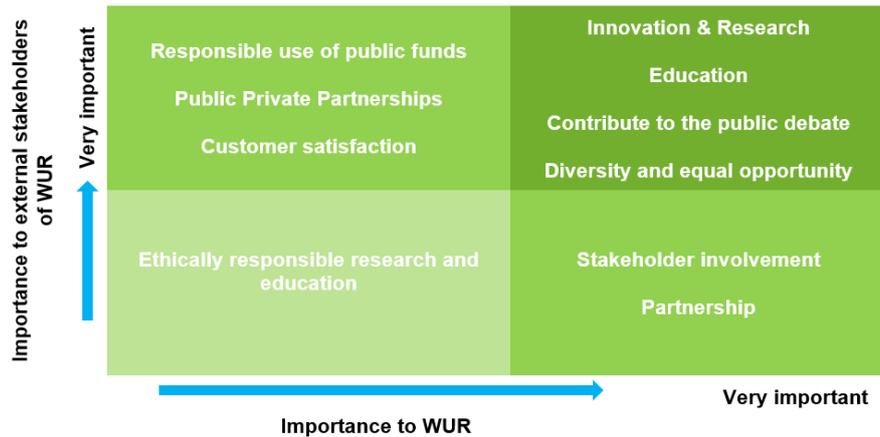


Figure 4. Top 10 prioritized themes of the CSR agenda of WUR

3.2. Sustainability in research and education

‘Innovation & research’ and ‘Education’ are ranked at the top of WUR’s CSR agenda by internal and external stakeholders. Through research WUR contributes to the global challenges in the fields of ecology, sustainability, health and food safety. As WUR combines Wageningen University and the institutes of Wageningen Research, scientific breakthroughs can be quickly translated into practical applications. Knowledge is shared with society, science and business, and integrated into our education. WUR research contributes to the (Dutch) National Science Agenda, the Grand Societal Challenges of the EU and the Sustainable Development Goals of the UN.

A central ambition is to provide excellent education:

newest insights from research are applied in the education programs of Wageningen University. Next to the focus on personal learning needs of students, the university aims to offer every student a solid foundation in scientific knowledge and academic skills [13].

Over the past years, WUR has developed a vision for sustainability in education. Wageningen University’s mission states “We educate students to become academic professionals, who can contribute to sustainable solutions for existing and future complex issues in the domain of ‘healthy food and living environment’ all over the world, and who take their social, personal and ethical responsibilities seriously.” Working on sustainable solutions and social, ethical, and personal responsibility have been explicitly included as goals. [16]. This approach led to recognition by the Accreditation Organisation of the Netherlands and Flanders (NVAO). In an institutional audit in 2018 Wageningen University received a positive advice on sustainability as a valuable and distinctive specific aspect [17].

4. Towards a ‘One Wageningen’ Approach

As pointed out in section 3, WUR started to move from environmental (green) sustainability to social responsibility since 2015. In 2018 a new strategic plan for WUR has been formulated, which presented a perfect opportunity to examine how WUR can take CSR to the next level.

A central notion in the new CSR strategy is that everything we do, we want to do in a ‘One Wageningen’ way to take full advantage of all available WUR knowledge. In order to achieve this, staff and student engagement in CSR policy and actions will be essential.

CSR in the WUR Strategic Plan 2019-2022:

«As an organisation, we continue to be a front-runner in sustainability and CoRPorate Social Responsibility (CSR). In this Strategic Plan period we give priority to promoting the vitality of staff and students, to offer healthier and more sustainably produced food in our canteens, and to reduce our food waste.

In transforming our organisation’s sustainability, we apply a Living Lab concept – an approach to provide opportunities for research and education experiments. In our procurement policies and practices, we push supply chains to be transparent, sustainable, circular and free from modern slavery.»

The next level CSR strategy includes the following elements:

- developing a vision on CSR in operations specifically for human resources, mobility, (food)waste management, catering, energy and procurement.
- involving students and employees, connecting research, education and operations in an integral approach, for example a 'Living Lab' approach.
- increasing the visibility of WUR CSR achievements to staff, students and other stakeholders [18].

These elements are further elaborated upon in the next sections.

4.1. Momentum for change and living labs

For WUR's operational management the integral approach on social responsibility will be continued for existing and new policies. The approach will be most effective if CSR policies and actions are built upon the concept of 'momentum for change'. For example, food provision on Wageningen Campus has environmental and social impacts throughout the food chain. New procurement contracts for food catering and waste management services give us the opportunity to scan the market for innovative CSR-proof solutions, thus generating momentum for change. Outcomes of research about food, for instance themes as health, food security and prevention of food waste, will be used in WUR's CSR approach to food and vitality.

Innovative ideas originating from research and education may encourage change in how WUR operates. Input from research and education is particularly valuable in operations, including procurement processes. Focus will be on projects that combine education, research and operations and on the involvement of students, staff and local stakeholders. This provides opportunities for research pilots and student theses in a living lab approach [18].

4.2. Next level CSR: themes

For the next steps in our CSR policy seven themes [18] are formulated:

- *Human resources*: WUR aims to be an inclusive organisation for employees, where diversity -in terms of gender, ethnic and cultural background, nationality, sexual orientation, and age- is highly valued. Focus is on employability, talent development and vitality.
- *Procurement*: WUR uses a growth model to determine the progress in social responsibility and sustainability in procurement from year to year. For each procurement process this model will encourage the use of specific sets of criteria and measures.
- *Modern slavery*: WUR will develop a policy - within WUR's broader ethical framework - which provides clear guidance on how to prevent, detect and report modern slavery in WUR supply chains or any other part of the organisation.
- *Circularity*: a new strategy on material flows and waste management is being developed, based on an extensive Campus-based Material Flow Analysis (MFA) that maps all WUR material goods and their flows, from procurement through disposal. First results of the MFA is shown in Fig. 5.
- *Catering*: food waste is an important theme in the education and research programmes as well as in the operational management at WUR. The Green Office has an active portfolio on catering (Meatless Monday, Student Cooking Corner and Reuse Revolution).
- *Energy*: WUR aims at a leading role in the energy transition, by setting an example for a balanced system for energy provision, which is sustainable, affordable, reliable and compliant. Optimisation of energy use in buildings is one of the main challenges [10].
- *Mobility*: WUR vision on sustainable mobility [19] identifies measures to increase sustainability: decrease the number and distance of work-related trips, to promote alternative transport and cleaner means of transport and to increase efficiency of existing transport options.

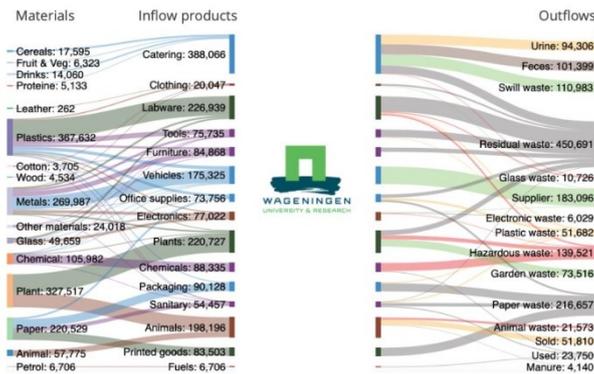


Figure 5. A campus-based Material Flow Analysis (MFA) [20]

5. Concluding Remarks

5.1. Achievements

Working on sustainable development is a continuous and on-going process: a ‘work in progress’. Since 2009 WUR has followed an integral approach to sustainability in research, education and operations. At first, emphasis was put on the ‘green’ sustainability in operational management and on being transparent about WUR’s impact on the environment. Step by step the strategy shifted from sustainability to corporate social responsibility (CSR). This involves achieving a balance in the complex relationships between today’s social, environmental and economic needs, without endangering future needs. Fig. 6 gives an overview the achievements in the past 10 years.

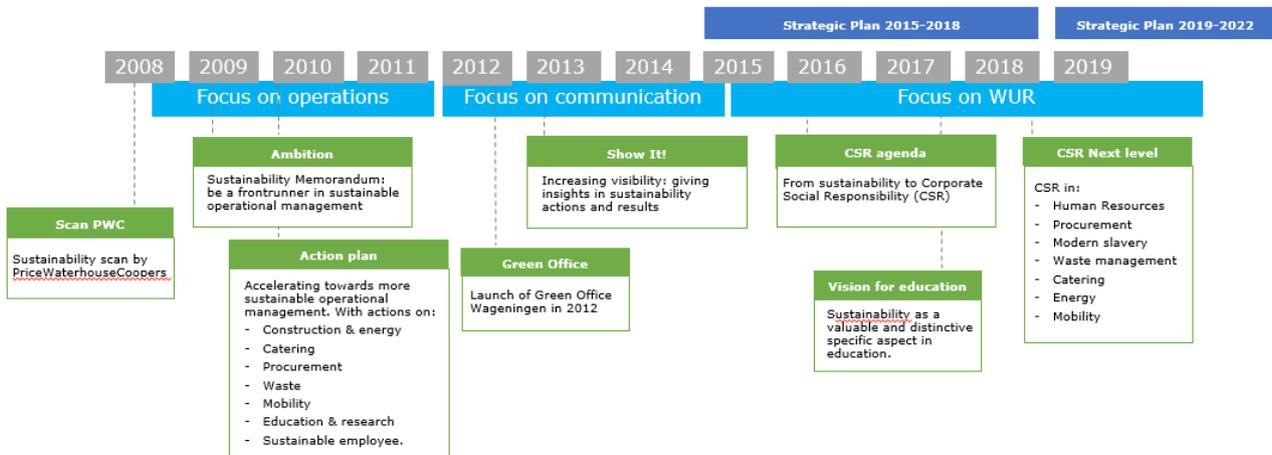


Figure 6. A timeline of the WUR’s strategy towards sustainability and social responsibility

For the coming period WUR will work on further broadening strategy on social responsibility. The CSR agenda will be brought in line with the Strategic Plan 2019-2022. More focus will be put on the involvement of students and staff for example via a Living Lab approach and increasing the visibility of CSR achievements to all (internal and external) stakeholders.

5.2. Lessons learned

For WUR, we learned the following lessons:

- Mapping out strategies and formulating policies is easily done, but sustainable development does not happen by itself. A driving force is needed, responsible persons need to be appointed.
- Be patient and work step by step: you simply cannot do all at the same time. Start with the ‘low hanging fruits’, and continue with more complicated topics that are appropriate for and can be influenced by your organisation.
- Sometimes it is better to wait for the right moment to start (or continue) working on an issue. Use ‘momentum of change’ when an opportunity or a sense of urgency occurs. Examples for WUR are the

interest within the organisation for the UN Sustainable Development Goals and for social responsibility and circularity in procurement and supply chains.

As sustainability is more and more intertwined in all activities of the organisation –as part of the day to day practices and routines- it becomes difficult to value the effort (in time and money) of the strategies, measures and activities linked to sustainability and social responsibility.

References

- [1] WUR, Strategic Plan 2019-2022 (2019) [link]
- [2] WUR, Accelerating towards more sustainable operational management, p. 4 (2010)
- [3] PriceWaterhouseCoopers, Duurzaamheidsscan 2008 Wageningen University en Researchcentrum (2008)
- [4] WUR, website: About Wageningen [link]
- [5] WUR, website: Organisation chart [link]
- [6] WUR, Sustainability Memorandum, Wageningen UR (2009)
- [7] WUR, Accelerating towards more sustainable operational management (2010)
- [8] Show It! Interpretation of sustainability for Wageningen UR 2013 + 2014 (2012)
- [9] WUR, Annual Environmental Report (2017) [link]
- [10] WUR, Energy Vision for 2030 (2014) [link]
- [11] WUR, Wageningen UR Waste policy & implementation (2014) [link]
- [12] Green Office Wageningen, website [link]
- [13] WUR, Annual Year Report 2017 (2018) [link]
- [14] WUR, Strategic Plan 2015-2018 (2016) [link]
- [15] WUR, Annual Report 2016 (2017) [link]
- [16] WUR, Vision for Education (2017) [link]
- [17] NVAO, Report NVAO, Besluit tot het verlenen van een instellingstoets kwaliteitszorg, p. 2-3 (2018) [link report and website]
- [18] WUR, Next Level CSR; Summary and background note (to the Strategic Plan 2019-2022) (2018)
- [19] WUR, Mobility Vision 2030 (2019) [link]
- [20] T. Bouzidi, Thesis Product Flows (2019)