University Duisburg-Essen
ISCN-GULF Sustainable Campus Charter Report 2016

University Duisburg-Essen´s process development towards a tangible sustainable higher education institution

North Rhine-Westphalia (NRW) combines multifaceted cultures, a flourish economy and a strong system of education. This becomes particularly clear with a view on NRW´s education landscape. In Germany there is no other region with such a large concentration of higher education facilities.\(^1\) In this context and understanding of the land NRW as an ever-expanding society is the topic “sustainability” attributed to a special interest for coming challenges. Therefore NRW addressed the task of developing a sustainability strategy. This strategy makes a valuable contribution to the international-orientated Sustainable Development Goals (SDGs) of the United Nations.\(^2\) The University of Duisburg-Essen (UDE) – the ninth biggest University within Germany – considers the provision of local and global sustainability ambitions as central point of her responsibility towards inner and outer stakeholder networks. In 2013 the UDE has concluded to initialize and establish – as the first university in NRW – an innovative sustainable development process in the fields of education, research, administration and network activities within 5 years, which includes all stakeholders and especially its 44,000 students and all 3,200 staff members. The process enacted by the university’s rectorate aims to integrate sustainability into the fields of research, teaching and operation. It is, furthermore, striving to create a vivid network of existing initiatives, campaigns and action groups that are committed to sustainable development at and around the UDE. The sustainability

\(^1\) [https://land.nrw/en](https://land.nrw/en)

\(^2\) [http://www.nachhaltigkeit.nrw.de/ziele/](http://www.nachhaltigkeit.nrw.de/ziele/)
Process-office is put directly in charge of the rectorate and manages the conception and organization of the open process that is encouraging a variety of stakeholders to actively take part in shaping UDE’s profile to become a leader in sustainability.

In order to map and reflect the present state of sustainability of and within the university, the sustainability reporting is streamlined by orientation on the Global Reporting Initiative (GRI). The GRI concept includes 149 indicators orientated to the vision of developing a global and sustainable economy, where organizations can manage responsibly and report transparently their economical, ecological and social efficiency. Due to the fact that the indicators have been designed primarily for the business sector, particularly relevant indicators for higher education institutions had to be selected and adjusted. After the first survey, 98 indicators were determined as relevant for the UDE. In addition to this international approach, the Sustainability Code (DNK) serves as an important guideline for a consolidated reporting. The code includes 20 criteria as well as additional non-financial performance indicators that have been selected from GRI and European Federation of Financial Analysts Societies (EFFAS) indicators.\(^3\) The combination of DNK and GRI are reflected in the Sustainable Development Goals (SDGs)\(^4\) and therefore provide a solid basis for the further development of the UDE sustainable process (napro).

Process activities at UDE engage all fields of work of a higher education institution and thus provide a basis of a holistic sustainable development up to a sustainable institution in the future. In a strong participatory open process lecturers, researchers, students, employees, as well as societal, economic and public stakeholders will continuously verify, refine and consolidate which activities are necessary to promote sustainable development at UDE. In this connection they identify, configure and elaborate action fields of sustainability, such as operational mobility, diversity or inclusion management or procurement of materials and goods. To stabilize the process, sustainability guidelines and arrangements will be formulated. One of the measures shall include the

\(^3\) http://www.deutscher-nachhaltigkeitskodex.de/en/the-code/the-code.html

\(^4\) http://www.un.org/sustainabledevelopment/sustainable-development-goals/#
implementation of a green office and ensure a permanent integration of the university administration, especially by usage of data acquisition systems, reporting obligations, etc.

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Sustainability Process

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Principle 1 – Sustainability Performance of Buildings on Campus

**Principle 1: To demonstrate respect for nature and society, sustainability considerations should be an integral part of planning, construction, renovation, and operation of buildings on campus.**

A sustainable campus infrastructure is governed by respect for natural resources and social responsibility, and embraces the principle of a low carbon economy. Concrete goals embodied in individual buildings can include minimizing environmental impacts (such as energy and water consumption or waste), furthering equal access (such as nondiscrimination of the disabled), and optimizing the integration of the built and natural environments. To ensure buildings on campus can meet these goals in the long term, and in a flexible manner, useful processes include participatory planning (integrating end-users such as faculty, staff, and students) and life-cycle costing (taking into account future cost-savings from sustainable construction).

**Management Approach to Principle 1 Topics**

The UDE implement an energy management system by ISO 50001. It allows to illustrate a statistical data of consumption for analysis and documentation of energy distribution.

**Completed tasks:**
- Development of a documentation system with appropriate software
- Organisation of *Management*-layer
- Modernization of 200 power measurement counters for automatic data inquiry

**Main initiatives and results**

- Decentralized input and trend monitoring of consumption
- All energy related data integrated in one tool
  - key tasks: management of lab facilities
- Summary of lodger settlements (student services, AstA, gym,...)
- Diverse report analysis options like trend analysis and annual reference value
Principle 2 – Campus wide Master Planning and Target Setting

**Principle 2: To ensure long-term sustainable campus development, campus-wide master planning and target-setting should include environmental and social goals.**

Sustainable campus development needs to rely on forward-looking planning processes that consider the campus as a whole, and not just individual buildings. These processes can include comprehensive master planning with goals for impact management (for example, limiting use of land and other natural resources and protecting ecosystems), responsible operation (for example encouraging environmentally compatible transport modes and efficiently managing urban flows), and social integration (ensuring user diversity, creating indoor and outdoor spaces for social exchange and shared learning, and supporting ease of access to commerce and services). Such integrated planning can profit from including users and neighbors, and can be strengthened by organization-wide target setting (for example greenhouse gas emission goals). Existing low-carbon lifestyles and practices within individual campuses that foster sustainability, such as easy access for pedestrians, grey water recycling and low levels of resource use and waste generation, need to be identified, expanded and disseminated widely.

**Management Approach to Principle 2 Topics**

The sustainable process of the UDE is organized as follows:
- The UDE’s way towards sustainability includes a strategical and coordinating approach.
- It is designed as a decentralized process.
- For sustainability reporting it is our claim to integrate all contributors and activities within all sustainability indicators.
- We define responsibilities for matching of joint interests within participating units.
- The process development is our key activity.

**Co-operation & Networking as an important strategy part for sustainable development**

Together with the Technical University Dortmund and the Ruhr University Bochum, UDE forms the *Universitätsallianz Ruhr* (alliance of Ruhr universities). The regional network of some of the biggest universities of the state of North Rhine-Westphalia, the most populated German federal state, unifies more than 115,000 students. Within this collaboration the sustainability process of UDE encourages to jointly work on sustainability strategies for the alliance partners.

With the goal to further expand and strengthen the state-wide exchange of expertise and knowledge about the implementation of sustainability in higher education units, UDE successfully organised its first sustainability symposium in November 2016. The event was supported by the Ministry of Innovation, Science and Research of the State of North Rhine-Westphalia and hosted guests from the world of politics, research institutes and universities.

At national level, the UDE is participating in an exemplary project initiated by the German Federal Ministry of Education and Research that aims to introduce a sustainability code for higher education institutions in Germany. In different workshops throughout the project, a number of eleven universities and colleges cover the topics of sustainability in the fields of governance, sustainability reporting, research, teaching and administration. The UDE, together with the Freie Universität Berlin and the Universität Hamburg, is responsible for the working group for sustainability reporting. During the project the partners will co-operatively develop a manual for sustainability reporting for higher education units as a helpful guide for all German universities and colleges.
In 2016, the UDE joined the International Sustainable Campus Network (ISCN), in order to extend its efforts to cooperation to an international level. The sustainability process of UDE was thus represented at the annually ISCN conference in Siena, Italy, and gained first insights into the advantages of the memberships in the global network. In regard to those, the university plans to become more engaged within the network, to actively address partners and learn from best-practices.

In total, the UDE successfully engaged in collaborative actions and networks for sustainability since the launch of its sustainability process. It is an integral part of the sustainability process’ future alignment to deepen its partnerships at local, regional and international level and to contribute to the implementation of sustainability at higher education units by the open exchange of expertise and experience.

**Main initiatives and results**

Process activities at UDE engage all fields of work of a higher education institution and thus provides a basis of a holistic sustainable development up to a sustainable institution in the future. Lecturer, students, employees, society and ministries will be constantly verified and consolidated which activities are necessary to promote sustainable development at UDE. In this connection they structure and follow up action fields of sustainability, such as operational mobility, diversity or inclusion management. To stabilize the process, sustainability guidelines and arrangements will be formulated for the whole unit. One of the measures shall include the implementation of a green office and shall ensure a permanent integration of university administration, especially by usage of data acquisition systems, reporting obligations, etc.

For the first period of the process from 2013 - 2018, there are aims achieved within the sustainability process as follows:

- Experiences in organizational structures within napro
- Network development with internal and external competence centers and partners
- Sustainability campaign for public awareness (students, employees, researchers, public)
• Support of students, employees and researchers to think about a more sustainable way of their actions and to make decisions for the future

Next milestones and steps are:

• Sustainability reporting (every 2 years)
• Establishing sustainability guidelines at UDE
• Continuation and embedding of the process in education, research and administration
• Permanent integration of university administration, especially by usage of data acquisition systems, reporting obligations, etc.
Principle 3 – Integration of Facilities, Research, and Education

**Principle 3: To align the organization’s core mission with sustainable development, facilities, research, and education should be linked to create a “living laboratory” for sustainability.**

On a sustainable campus, the built environment, operational systems, research, scholarship, and education are linked as a “living laboratory” for sustainability. Users (such as students, faculty, and staff) have access to research, teaching, and learning opportunities on connections between environmental, social, and economic issues. Campus sustainability programs have concrete goals and can bring together campus residents with external partners, such as industry, government, or organized civil society. Beyond exploring a sustainable future in general, such programs can address issues pertinent to research and higher education (such as environmental impacts of research facilities, participatory teaching, or research that transcends disciplines). Institutional commitments (such as a sustainability policy) and dedicated resources (such as a person or team in the administration focused on this task) contribute to success.

Management Approach to Principle 3 Topics

In preparation of UDE’s first sustainability report, which will be published in 2017, the sustainability process team collected information about all indicators of the Global Reporting Initiative (GRI) standard. Based on this data pool, measures for the implementation of sustainability could be taken. One of those measures was to reorganise the use of bureau materials at the UDE. Options to choose ecologically friendly materials were introduced by widening the range of products and customizing the new options in the SAP order catalogue. In addition, it is intended to assign this procedure to the procurement of office furniture, and to eventually create a cradle-to-cradle approach in the longer term.

As the collection of indicators needed to report on sustainability performance is covering various fields, the sustainability process of the UDE took further actions. Since January 2016 the UDE is providing electric vehicles for its mail delivery service between its campuses in Duisburg and Essen, two cities with a distance of around 24km. Moreover, the sustainability process team is currently working on an integrated mobility concept, which is planned to provide and motivate to use sustainable transport alternatives to get
from and to the university. Here, with more than 5,000 employees and around 43,000 students, the UDE is facing the challenge of meeting the needs of a broad targeted individuals. Furthermore, as the university is situated in the metropolitan area of North Rhine-Westphalia, in the middle of the Ruhrgebiet and surrounded by a number of cities, the university is known as a "commuter university". Therefore, the approach to create sustainable mobility solutions for the amount of roughly 48,000 people is highly relevant for the UDE’s goal to become an outstanding example for the implementation of sustainability at a higher education unit. In order to realise a concept for sustainable mobility, first steps have been taken. In our research project “Sustainable Higher Education Units – Practice-oriented research for sustainable development of the UDE and urban areas” undertaken by students in 2016, for example, the number of commuters and different commuting options have been analysed. Additionally, the option to travel to and from the campuses by bike has been analysed with regards to factors such as safety and infrastructure. The subject aims of the project were as follows:

- Insights into methods of planning and implementing sustainability in higher education units
- Awareness of the complexity to harmonize previous structures into a holistic sustainable thinking and acting of the unit
- Awareness and development of strategies for sustainable issues in different research fields
- cross-faculty exchange of sustainable developments in the holistic unit
- Insights into ecological, economic and social research fields and its connections
- Reports based on real-life experiences for a better understanding of the complexity in the field of sustainable development in higher education units
- Insights into the link between Campus Management, Sustainable Education and Research and Diversity and Inclusion Management and the challenges and opportunities of the individual priorities themselves
- long-term implementation of the designed concepts and ideas
Next to the mentioned examples of how the UDE puts sustainability into practice in its daily operations, it is furthermore considering more strategic approaches. Therefore the sustainability process is going to implement a Green Office for continuation the current activities around sustainable development.

Since the UDE started its sustainability process it is engaged in and supports on-campus activities. It is regularly presenting itself at the students fair Markt der Möglichkeiten (market of possibilities) on the two campuses in Essen and Duisburg, to inform freshmen and interested students about the university’s goal to implement sustainability in the fields of research, teaching and operation. Moreover, it organises campaign days on campus and honours students and employees who are dedicated to sustainability on the annual summer festival.