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The cover picture (© Stefanie Wetzke, 2020) of this report shows the project "A Fair Land" at Pforzheim University - a design, art and architecture installation with ecological and economic references. It offers a platform for joint exchange on sustainable topics and events, such as cooking together and various workshops.

 further information on the project

Preamble of the Pforzheim University's extended Board of Management

Sustainability is a central strategic driver at Pforzheim University. The orientation of the one vice president position towards energy management and climate protection anchors sustainability issues more firmly in the university management.

This report provides information on development and progress in the field of responsible management and sustainability at Pforzheim University.



Prof. Dr. Ingela Tietze (Vice Rector for Energy Economics and Climate Protection)

The Pforzheim University of Applied Sciences' extended board of management is committed to adhering to sustainable principles, in particular the Principles for Responsible Management Education (PRME), and to supporting the Sustainable Development Goals of the United Nations in teaching, research and operation of the university.

We would like to thank the stakeholders from all areas of our university (students, lecturers, administration and management) who have contributed to this report. Our special thanks go to the Sustainability Officer Stefanie Wetzke and the Sustainability Representative Prof. Dr. Tobias Viere for their perseverance in driving the activities forward.

Prof. Dr. Ingela Tietze (Prorector)
on behalf of the Pforzheim University's extended board *.

* The extended board of management consists of Prof. Dr. Ulrich Jautz (Rector), Prof. Dr. Ingela Tietze (Vice-President for Energy Management and Climate Protection), Prof. Dr.-Ing. Hanno Weber (Vice-Rector for Teaching), Bernd Welter (Chancellor), Prof. Dr. Thomas Cleff (Dean of the Faculty of Economics and Law), Prof. Johann Stockhammer (Dean of the Faculty of Design), Prof. Dr.-Ing. Matthias Weyer (Dean of the Faculty of Engineering).

Introduction to Pforzheim University

Pforzheim University with its three faculties – design, engineering and business and law - enjoys a first-class reputation. The faculties combine creativity with business education and technical precision. This combination makes our university an attractive science and research partner for the regional and national economy. With around 6,200 students, we are one of the largest universities of applied sciences in Baden-Wuerttemberg.

The qualification and practical experience of the teaching staff on the one hand and the intensive cooperation with successful companies on the other lay the foundation for our university's outstanding position in various rankings. We offer 29 Bachelor's and 19 Master's degree programs. Around 480 professors and lecturers ensure that students feel well looked after in Pforzheim right from the start.



HS PF New building of the Centre for Precision Technology (ZPT)

Through the close connection between theory and practice, positive synergy effects develop, which result in numerous projects and research approaches for industry and business. Our university cooperates with more than 100 partner universities worldwide, is involved in international networks and attaches great importance to business and corporate ethics.

The vision of our university is "Leading by changing perspectives".

This vision is based on the

recognition that the thinking, recognition and action of individuals are always only parts of several possibilities. The ability to change perspectives enables us to consider the diversity of perspectives and thus to act in a way that meets complex challenges. In this way, Pforzheim University makes a positive contribution to the coexistence and advancement of people in a changing world. The vision is further concretized by the following objectives:



#Interdisciplinary - We unite disciplines

We follow a distinct interdisciplinary approach where we consider complex future questions innovatively, responsibly and comprehensively and create our own solutions.



#responsible – We share responsibility

We develop viable solutions for complex challenges and consider their impact on the economy and society while accepting responsibility for their impact.



#International - We bridge borders

Pforzheim University is firmly rooted in the region and well connected on a national and international level. We educate our students as global thinkers for the worldwide labor market and invite participation in our programs and research from all over the world.



#personal - We foster relationships

Our learning environment values the individuality of our students and guides them towards academic success through excellent supervision.



#practical - We shape practice

We are a driving force in the discourse about future design, creative, economic and technological issues; we are sought after experts for businesses, politics and society.



#Innovative - We Innovate together

Our education provides our students with the professional, methodical and social skills and competences for innovation and creativity while our research contributes novel scientific insights for the changing needs of business and society.

 Complete HS PF Vision and Mission



Principle 1 - Purpose

We will develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.

#responsible in our university's vision emphasizes the outstanding role that social responsibility has in our institution. Our vision defines ethical and intercultural competence and responsible thinking as an essential part of education and we encourage our students to critically examine the social and ecological consequences of their own actions. We attach particular importance to transferring our knowledge to society, promote responsible action and teach democratic values.

🌐 Further explanations on our understanding of responsibility within teaching and education at our university

The hub of all our activities in the field of sustainability & PRME is the sustainability board, which was founded in 2016. It bundles competences and main actors on the topics of sustainability, PRME and ethics. In addition to many bilateral meetings, the board meets officially once every semester. The board is coordinated by Prof. Dr. Tobias Viere, the representative for sustainability and PRME, and the Vice Rector for Climate Protection and Energy Management, Prof. Dr. Ingela Tietze. Representatives for ethics and gender equality, quality managers, sustainability-oriented researchers, faculty and technical services representatives and further stakeholders collaborate in our sustainability board. Students are important players in the board with representatives of the general student's committee and of initiatives related to sustainability.

🌐 Further information about the sustainability board



Werkchau 2021: Design & Future Making: Graduation Works © HS PF



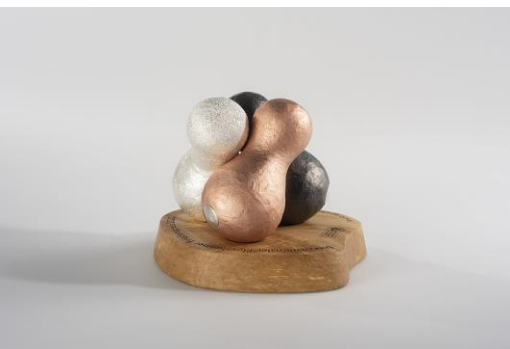
Principle 2 - Values

We will incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.

Pforzheim University is one of the first educational institutions worldwide to have joined the UN initiative "Principles for Responsible Management Education" (UN PRME). Since the 1980s Pforzheim University has been dealing with environmental matters and since the 1990s with economic and business ethics. Today, students have the opportunity to gain additional qualifications in matters of corporate responsibility and sustainability through various offers, which are further explained in the following section on Principle 3.

In 2019, our organizational values were discussed by university members in internal stakeholder groups in various workshop and dialogue formats. As a result, the three core values crystallized "Mutual appreciation", "Growing together" and "Striving forward". These values are an essential part of our mission statement and form the foundation on which we aspire to realize our vision and fulfill our mission.

 Further information



1. International Pforzheim Peace Prize, design: Johanna Seibert, Jewellery course, 2021 © HSPF

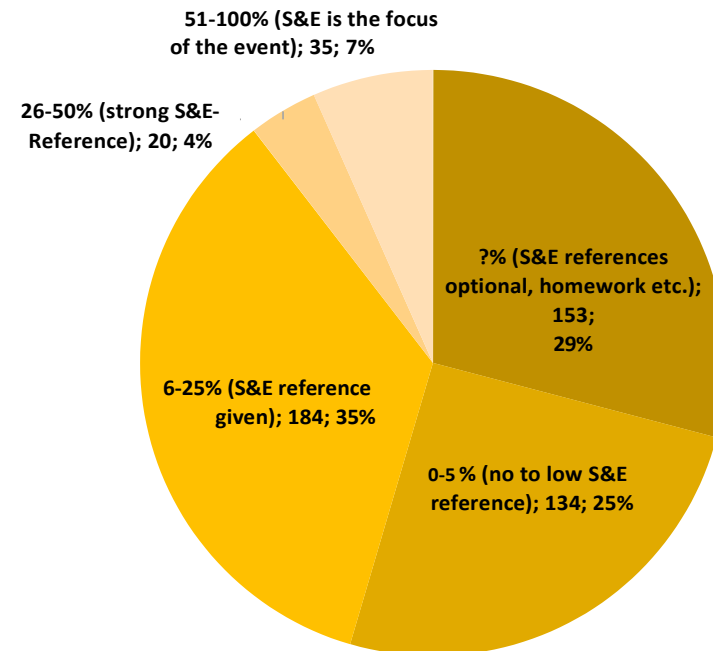


Principle 3 - Method

We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.

At our university, PRME and sustainability-related content can be found in courses of all study programs and in many theses (see Figure 1 and Table 1). The spectrum ranges from specific technical courses on sustainable product development, life cycle assessment, responsible design, fair fashion or ethics and social responsibility.

Figure 1: Number of lectures with sustainability, ethics and PRME content



The query of S&E courses (S&E: Sustainability, Ethics and PRME) currently comprises approx. 50% of all courses offered at HS PF. Status: 10/2021

Table 1: Theses with a sustainability focus at the Business School

| 2017 | 2018 | 2019 | 2020 |
|------|------|------|------|
| 5% | 6% | 6% | 14% |

Within our university two successful study programs have been established with a specialization on sustainability, resource efficiency, and industrial ecology. Both are operated by the Institute for Industrial Ecology.

- 🌐 B.Sc. Business Administration / Resource Efficiency Management
- 🌐 M.Sc. Life Cycle & Sustainability

At Pforzheim University, we ensure that sustainability and PRME topics are given a high profile both within and outside the curricula across all study programs. Some important cross-curricula initiatives and offers are presented below.

The elective module "**Ethics and Social Responsibility**" (EGV) was initially only offered to students of the Business School and is now also open to Bachelor students of the Faculties of Technology and Design. There are several specialization subjects to choose from:

- Business ethics: economic and socio-historical perspectives
- Business and corporate ethics
- Environmental management
- Sustainable development
- Situation and integration of refugees in Pforzheim
- Corporate responsibility and sustainability management

The module aims to expand the perspective of economic value to include ethical and social perspectives and their consequences for the globalized world. The aim is to impart basic knowledge and skills for dealing with different demands on companies as well as approaches for an extended value and conflict management. The coordinator of the elective module is Prof. Dr. Jürgen Volkert.

🌐 more information on EGV

At Pforzheim University, students can obtain the **Ethikum certificate** for special activities and learning efforts in the areas of ethics and

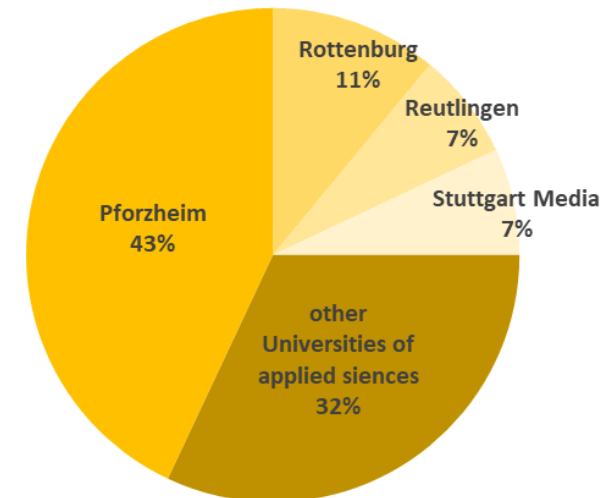
sustainability. The certificate is awarded by the Department for Ethics in Technology and Science (rtwe) only at Baden-Wuerttemberg universities of applied sciences. With more than 270 Ethikum certificates awarded, 43% of all Ethikum certificates are awarded to Pforzheim students (see Figure 2). The Ethics Officer Prof. Dr. Katharina Kilian-Yasin is the coordinator of the Ethikum.

🌐 Information on the acquisition of the Ethikum at the HS PF

Also, of high sustainability relevance is the Perspectum certificate, which students can receive for participation in interdisciplinary teaching events and commitment beyond their regular studies. We support our students in developing solutions for interdisciplinary issues and in looking at objects from different perspectives (designers, technicians, economists, lawyers, etc.). We work on future-oriented topics in dialogue with regional, national and international cooperation partners from business and society.

🌐 more information about the Perspectum

Figure 2: Distribution of ethics certificates at universities of applied sciences in Baden-Württemberg





Principle 4 - Research

We will engage in conceptual and empirical research that advances our understanding about the role, dynamics and impact of corporations in creating sustainable social, environmental and economic value.

Research in the PRME and sustainability context takes place at all of our university's three faculties. Many of our researchers are active in projects and publications in these fields. Within the Institute for Industrial Ecology (INEC) and the Centre for Consumer Research and Sustainable Consumption (vunk), a number of researchers have joined forces to form powerful research units:

A flagship of sustainability research is the **Institute for Industrial Ecology (INEC)**, founded in 2010 and headed by Prof. Dr Mario Schmidt. More than 20 researchers with interdisciplinary backgrounds at INEC contribute to the ecological and economical optimization of product life cycles and operational production processes. They deal with many aspects of industrial ecology and quantitative sustainability assessment.

INEC website

Overview and further information on INEC projects

The **Centre for Consumer Research and Sustainable Consumption (vunk)** bundles the university's research activities on questions of consumer research and sustainable consumption. Lawyers, business economists and scientists from the fields of market and opinion research, technology, psychology, quantitative methods and design sciences are involved in the competence centre and work on the topics of electronic commerce, digitalisation and consumer issues, consumer research, sustainable consumption, obsolescence, consumer rights and consumer dispute resolution.

vunk website

In addition to the research activities of the above-mentioned institutions, further projects on PRME and sustainability-related research took place in 2020 and 2021, and a few of those are introduced in the following:

MaXycle

The aim is to increase the current recycling rate of permanent magnets by more than 90%, thus creating a sustainable, secondary raw material source for rare earth magnets to reduce dependencies and at the same time create new markets and jobs in the EU.

further project information

EAT-Regional - Tool for volunteers for regional and sustainable supply of camp and educational activities (EhrenAmtsTool für REGIONale und NACHhaltige Versorgung von Freizeitmaßnahmen Acronym: EAT-Regional)

The aim of the project is to provide recreational and educational activities at locations in the rural environment on a regional and sustainable basis.

further project information

AVENUE

Automated vehicles are being researched and tested worldwide. As part of an EU Horizon 2020 project, Pforzheim University, under the leadership of Prof. Guy Fournier, is exploring how automated minibuses can be integrated into public transport and under what conditions this will bring ecological, economic and social benefits.

further project information

The research activities related to sustainability and PRME are also reflected in a large number of corresponding scientific publications and the continuous increase in the share of peer-reviewed publications with a focus on aspects of sustainability (cf. Table 3).

Table 2: Proportion of peer-reviewed publications with sustainability relevance

| 2017 (2012-16) | 2018 (2013-17) | 2019 (2014-18) | 2020 (2015-19) |
|----------------|----------------|----------------|----------------|
| 24% | 29% | 33% | 39% |

Complete list of scientific HS PF publications



Principle 5 - Partnership

We will interact with managers of business corporations to extend our knowledge of their challenges in meeting social and environmental responsibility and to jointly develop effective approaches to meeting these challenges.

The permanent exchange with managers and companies is part of our university's DNA. At the university management level, this exchange is institutionalised in the Rector's Club, to which renowned companies in the region belong.

The partnership with companies also finds its way into courses and bachelor's and master's theses. A large variety of courses in different study programs uses real company cases and challenges as basis for project and case study work, often including topics of business ethics and sustainability. Professors and lectures use such formats as an opportunity for practice-oriented discussions with managers and engineers, which often result in long-term partnerships.

[further information](#)

In 2020, Pforzheim University and Sparkasse Pforzheim Calw established the Pforzheim University Foundation to ensure the high level of research, teaching and further education in the long term. In accordance with its statutes, the foundation will serve to promote Pforzheim University in the areas of science, research, teaching, education and training, art and culture.

[further information](#)

Doctoral opportunities at the Business School

In Germany, only universities or equivalent institutions of higher education have the own right to award doctorates. Academic staff at the Business School nevertheless have the opportunity to gain a doctorate. The doctorate is awarded in the form of a cooperation between the HS PF and a partner entitled to award doctorates.

[further information](#)

100 companies for resource efficiency

An outstanding project with regard to partnerships is called "100 Companies for Resource Efficiency" and is coordinated by the Institute for Industrial Ecology. Together with the state government of Baden-Wuerttemberg and all important regional industry associations, the Institute honored 100 best-practice examples of resource efficiency, energy efficiency and related environmental and climate protection across all sectors.

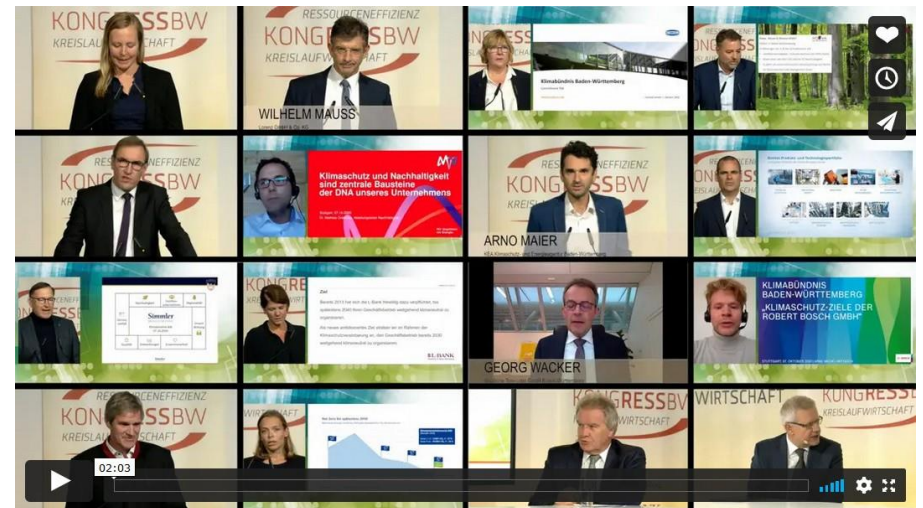
The best practice examples and general findings from these cases were published in Schmidt et al (2019): 100 Pioneers in Efficient Resource Management. In the meantime, the book has also made a contribution to international teaching in the sustainability context (see contribution).

[further information](#)

Resource Efficiency Congress BW 2021

The Institute for Industrial Ecology of the HSPF has been successfully involved in the organization of the Resource Efficiency Congress of the state government of Baden-Wuerttemberg for a decade. In 2021, the event took place as a hybrid event in Stuttgart and online on 13 and 14 October and attracted well over 1000 participants.

[more information about the congress](#)



© www.kongress-bw.de



Principle 6 - Dialogue

We will facilitate and support dialogue and debate among educators, students, businesses, governments, consumers, media, civil society organizations and other interested stakeholders on critical issues related to global social responsibility and sustainability. Some formats are presented below:

Lecture series on resource efficiency and sustainability

Every semester, external and internal experts present their findings in the field of resource efficiency and sustainability in our lecture series, enabling students, university members and interested guests to learn about current scientific, political and corporate developments at first hand.

A special highlight was the lecture by Franz Untersteller (former Minister for the Environment, Climate and Energy of Baden-Württemberg, 02.12.2020) with his impulse on "Environmental policy between vision and realpolitik".

Further interesting lectures were given by:

- Prof. Dr Mario Schmidt, HS PF (21.10.2021) "Climate neutrality - realistic vision or deceptive package?"
- Dr. Roda Verheyen, lawyer and judge at the Hamburg Constitutional Court (25.11.2021) "Climate neutrality - The state's constitutional obligation to protect the climate and the environment".
- Steffen Lewerenz, HS PF, Markus Szaguhn (KIT), Prof. Dr. Ingela Tietze, HS PF (09.12.2021) "Climate Neutrality and Universities"
- Altan Günsoy, Global Climate GmbH, Prof. Dr. Bastian Schröter, CO2OP GbR (16.12.2021) "Climate neutrality - Innovative start-up solutions for more climate protection in company".



Environment Minister Franz Untersteller during his keynote speech on environmental policy between visions and Realpolitik (c) Axel Grehl

Further information on the lecture series

Since 1985, the lecture "Studium Generale" has regularly attracted a large audience from Pforzheim and the surrounding area, filling the Audimax with several hundred listeners. Particularly noteworthy are the lectures focusing on sustainability and ethics:

- Prof. Dr. Stefan Rahmstorf (11/2020) It's getting too warm for Homo Sapiens
 - Prof. Dr Hartmut Walz and Dr Gerhard Schick (10/2021) So that the bank does not always win - For fair financial markets and products
 - Prof. Dr. Matthias Quent (11/2021) Justification of Inequality: Social Populism, Culture War and Climate Racism of the Radical Right
- Website Studium Generale

A Fair Land Pforzheim

With "A Fair Land Pforzheim", the Faculty of Design of the Pforzheim University of Applied Sciences started the cooperation project SPIEL MAL together with the city in 2020. Courgettes were planted on over 200 bales of straw. With this organic sculpture, the HS PF designed a place of social cohesion for the Waisenhausplatz. Of course, the "Fair Land" was about more than just a harvest. Art, design and architecture were experimented with to combine social activation, co-production, poetic spaces and ecological and economic sustainability. More information on Fair Land Pforzheim can be found in the following article.

more information on the SPIEL MAL project




Pforzheim University is an active member of the PRME community. During the reporting period, our PRME and Sustainability Representative, Prof. Dr Tobias Viere, was a member of the steering committee of the German-speaking PRME Chapter and the German Global Compact Network.

In addition, the university is involved in many other forms of sustainability-related dialogue, of which only a few can be mentioned here. For instance, Prof. Dr. Mario Schmidt is Sustainability Advisory Board member of Baden-Wuerttemberg's prime minister, and Prof. Dr. Tobias Brönneke is the Chairman of the Baden-Wuerttemberg's Consumer Commission. It is furthermore noteworthy that many of our students foster a continuous dialogue with society and their own university. Some student initiatives with sustainability and PRME -related issues should be highlighted here.

Since 2020 Rennschmiede (racing company) develops an electric racing car instead of a combustion engine (see picture on the right).

Remedy e.V. is a student initiative that deals with topics related to the environment and sustainability. They want to offer students at Pforzheim University, and especially those on the BW/Resource Efficiency Management course, added value beyond their studies. In doing so, they focus on the problem of dwindling resources and contribute to climate- and resource-friendly actions in politics, business and society. They operate a Fair-O-Mat, a mechanical snack machine without electricity, and fill it exclusively with Fairtrade and organic products. In doing so, they contribute to the concept of the "Fair Trade University". They design the implementation of the Edible Campus and regularly organize events, such as the rubbish collection campaign, together with other initiatives.

initiAID enables students to become socially involved in the initiative in Pforzheim or to gain formative experience and assume social responsibility in project assignments. initiAID runs a project in a South African township and supports refugees living in Pforzheim.

 Information on all student initiatives



the first electric car from Rennschmiede Pforzheim © HSPF

further information

This is the 7th Progress Report (SIP) of Pforzheim University on the implementation of the Principles for Responsible Management Education PRME. In general, the report covers two academic years from the beginning of the winter semester 2019/20 (Sept. 2019) to the end of the summer semester 2021 (August 2021). The figures on publications, theses and research projects refer to calendar years instead.

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