

Pforzheim University
PRME Report 2022-2023



Content

Preamble of Pforzheim University`s extended Board of Management	2
Introducing Pforzheim University	3
Principle 1 - Purpose	3
Principle 2 - Values	5
Principle 3 - Methods	5
Principle 4 - Research	8
Principle 5 - Partnership	9
Principle 6 - Dialog	11
Further information	13
Figure 1: Distribution of ethics certificates at Universities of Applied Sciences in Baden-Wuerttemberg	6
Table 1: Comparison of the proportion of newly launched R&D third-party funded projects with sustainability and PRME relevance	8

The cover picture (© Cornelia Kamper) of this report shows the campus of Pforzheim University.

Preamble of Pforzheim University's extended Board of Management

The responsible and holistic consideration of issues and challenges of sustainable development is an important component of a future-oriented, innovative university. Pforzheim University sees sustainable development as an ongoing process that is continuously shaped, reviewed and further developed.

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

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 United Nations Sustainable Development Goals in education, research and operations at the university.

We would like to thank the stakeholders from all areas of our university (students, teaching staff, administration and management) who contribute to the implementation of the diverse PRME and sustainability-related activities.

Prof. Dr. Ingela Tietze (Vice President)
on behalf of the Extended Executive Board of Pforzheim University*



Prof. Dr. Ingela Tietze (Vice President for Energy Management and Climate Protection)

*The extended university management consists of Prof. Dr. Ulrich Jautz (Rector), Prof. Dr. Ingela Tietze (Vice President for Energy Management and Climate Protection), and Prof. Dr.-Ing. Frank Niemann (Vice President for Teaching), Bernd Welter (Chancellor), Prof. Dr. Thomas Cleff (Dean of the Business School), Prof. Johann Stockhammer (Dean of the School of Design), Prof. Dr.-Ing. Matthias Weyer (Dean of the School of Engineering).

Pforzheim University introduces itself

Pforzheim University of Applied Sciences - Design, Technology, Business and Law (HS PF) is a public University of Applied Sciences in Baden-Wuerttemberg containing the Schools of Design, Technology and Business and Law. The three schools 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.

Almost 7,000 people teach, research, work or study at Pforzheim University: around 6,000 students, 170 professors, 250 lecturers and 390 employees. As one of the largest Universities of Applied Sciences in Baden-Wuerttemberg, Pforzheim University offers 37 Bachelor's and 23 Master's degree programs.

The qualifications and practical experience of the teaching staff on the one hand and the intensive cooperation with successful companies on the other form the basis for the excellent position of our university in various rankings.

The close connection between theory and practice creates positive synergy effects that result in numerous projects and research approaches for industry and business. Our university cooperates with more than 100 partner universities worldwide, is integrated into international networks and place great value on business ethics and sustainable development.



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 economy.

HS PF sees itself as a place of changing perspectives. Our vision - Leading through a change of perspective - is HS PF's long-term vision for the future. In this vision, we express that we see a change of perspective as the central image of an achievable reality. The power of a change of perspective should establish us as a leading university in the performance of our tasks in studies, teaching, research and further education. This vision is based on the realization that the thoughts, perceptions and actions of individual people only ever represent parts of several possibilities. The ability to change perspectives makes it possible to consider the diversity of viewpoints and thus to act in a way that does justice to complex challenges. In this way, HS PF makes a positive contribution to the coexistence and progress of people in a changing world.

Sustainability is anchored in the mission statement of Pforzheim University with #responsible. By #responsible, HS PF understands sustainability as a continuous process to ensure justice within and between generations as well as the preservation of natural resources and consideration of the ecological carrying capacity of the earth everywhere in the world. In its role model function, the university sees the need to help shape a sustainable society and to be a driving force for social transformation towards greater sustainability. The responsible and holistic consideration of issues and challenges of sustainable development is an important component of a future-oriented, innovative university.



#Interdisciplinary – We unite disciplines

We follow a distinct interdisciplinary approach, 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 welcome inspiration from all over the world into our teaching and research.



#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.

Sustainability has been firmly anchored at the management level of HS PF with the Vice Rectorate for Energy Management and Climate Protection, whose departmental responsibilities also include sustainability in general and PRME. The Sustainability Board acts as the central body for sustainability and was legitimized by the Senate in 2021. It advises the Rectorate and supports the anchoring of sustainability in all areas of the university. Every semester, the Sustainability Board holds a public meeting at the university to provide information and exchange ideas on sustainability and PRME-related topics and to introduce its own topics. The Sustainability Board is coordinated by the vice president for Energy Management and Climate Protection, Prof. Dr. Ingela Tietze.



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Principle 2 – Values

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

Pforzheim University of Applied Sciences has a long tradition of teaching skills for sustainable development. The university has been dealing with environmental issues since the 1980s and with business and corporate ethics since the 1990s. HS PF teaches its students skills that enable them to think and act in a future-oriented way and to treat people and natural resources responsibly.

Through a variety of offers and activities (see Principle 3), students can deepen their knowledge in this direction. With the consolidation and expansion of inter- and transdisciplinary teaching and learning formats, ethics and sustainability topics are further integrated into the degree programs. However, competencies for sustainable development are not yet integrated into the curricula of all degree programs across the board, which is our long-term goal.

It is therefore all the more gratifying that HS PF was accepted into the „Transformative Skills for Sustainability“ network initiative by the Stifterverband für die Deutsche Wissenschaft e.V. in June 2023. The initiative supports 20 universities across Germany that have defined specific challenges in the development of new learning and teaching concepts for teaching sustainability skills. The teaching of transformative skills for sustainability is to be anchored in the university curriculum and reach as many students as possible. This should enable students to help shape the major challenges in a transformative world.



Principle 3 - Methods

We will create an educational framework, as well as materials, processes and environments that enable effective learning experiences for responsible leadership.

Students from all schools can gain qualifications in sustainability and corporate responsibility in various courses. The degree programs and a selection of courses are presented below.

Study programs with a focus on sustainability

In the Bachelor's degree program in **Business Administration/Sustainability and Resource Efficiency (BNRE)** at the Business School, students are trained in the field of sustainable management and acquire skills in the analysis and evaluation of sustainability, climate protection and resource conservation. A wide range of electives allow students to develop their own individual profile, enabling them to deepen their personal interests.

The Master's degree course in **Life Cycle & Sustainability (MLICS)** at the Business School focuses on sustainable production. Students learn about and apply a wide range of methods and tools to make the effects and potential for improvement in value creation systems transparent.

The Bachelor's degree course in **WI/Circular Economy Engineering** offered by the School of Engineering starting in the winter semester 2024/25 combines industrial engineering with sustainability-oriented approaches of „Circular Economy“. Students are prepared to shape companies for the future through training in sustainable product development and sustainability-oriented innovation management, among other things.

Cross-curricular events anchored in the curriculum

The course **Ecological Thinking** is offered as part of the compulsory curriculum in the B.A. Accessories Design, B.A. Fashion and B.A. Jewelry courses at the School of Design. It shows different disciplinary and transdisciplinary approaches to thinking ecologically - from the object, the instance or the addressee.

Using current examples and inviting guest lecturers from research and practice, the integration of different approaches, perspectives, contexts and processes will be analyzed and suitable criteria for responsible networked design practice will be discussed.

The compulsory elective subject **Ethics and Social Responsibility**, which is open to students from all three schools, aims to expand the economic value perspective to include ethical and social perspectives and to critically reflect on the consequences for the increasingly important social responsibility of companies in the context of globalization. The course provides students with basic knowledge and skills to deal with the different demands placed on companies as well as approaches for expanded value and conflict management.

The **SIK program** is a cross-course component of the Bachelor's degree programs at the Business School. The two-week program in the first three semesters promotes students' social, methodological and intercultural skills (SIK) through various modules such as communication, teamwork and presentation training as well as a business planning game.

The Cross-Cultural Competencies course is also a compulsory part of the SIK program. Students learn and strengthen their soft skills in order to be prepared for intercultural and transnational cooperation in an increasingly multicultural society.

Extracurricular offers and certificates

Since the summer semester 2022, the impulse event **Sustainability and Climate Protection** has been offered to all first semester students at HS PF. This event raises students' awareness of sustainability and climate protection in general and gives them tips on how to behave in a more climate-friendly and sustainable way in everyday university life.

Students at HS PF have the opportunity to receive the Baden-Wuerttemberg **Ethikum certificate** for their in-depth commitment to ethics and sustainability. The certificate is awarded by the Department of Technology and Science Ethics (rtwe). HS PF continues to lead the way in awarding the certificate. In 2022 and 2023, a total of 20 Ethikum certificates were awarded to students at HS PF. With a total of 298 Ethikum certificates awarded, 44% of all Ethikum certificates were awarded to Pforzheim students (see Fig. 1).

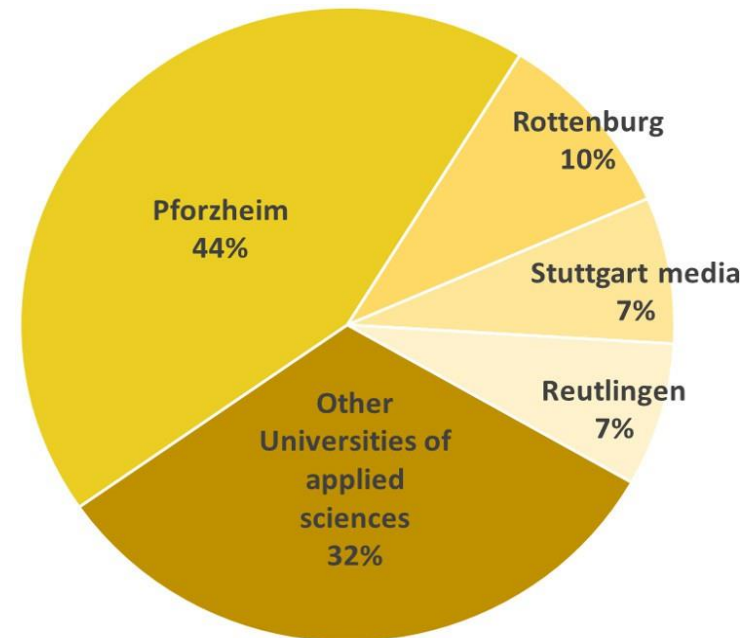


Figure 1: Distribution of ethics certificates at Universities of Applied Sciences in Baden-Wuerttemberg

The **PERSPECTUM** certificate for interdisciplinary skills documents students' change of perspective beyond their own subject area and their engagement with content and methods from other disciplines.

It certifies that interdisciplinary skills have been acquired and that students are able to think in a networked way in complex systems and to work on problems together in teams with other disciplines.

Examples:

- The **BEEsy-Mission bee project** is an interdisciplinary elective subject in which students learn and apply knowledge of project management and sustainable management using concrete examples.
- At the **Startup Summer Camp - Sustainable Innovation**, students get to know various methods of the startup scene and apply them to a specific business scenario in an interdisciplinary team.

Methods used in the classroom

In addition to traditional teaching methods such as lectures, case studies or excursions, a large number of courses in various degree programs use real business cases and challenges as the basis for project and case study work, often on topics relating to business ethics and sustainability.

The participatory teaching approach of **challenge-based learning** is used in a cooperation between the Industrial Engineering and Management course at the School of Engineering and the Business Administration/Sustainability and Resource Efficiency course at the Business School.

Students work independently on project topics for and with industry partners, research institutes and other organizations. The independent acquisition of methods and know-how is also essential. In addition to specialist content, this also involves aspects of social competence and communication. The self-directed learning and project process are accompanied and supported intensively by professors through regular coaching meetings. For many students, this format is often their first contact with companies in a professional environment.



BEEsy Mission information stand at the Info Day: Sustainability at HS PF 2022 ©Cornelia Kamper



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.

Pforzheim University is a recognized research location - this was confirmed at the beginning of 2022 by the renewed positive evaluation of the research institutes „Smart Systems and Services“ and „Industrial Ecology“ and their entry in the research map of the German Rectors' Conference (HRK). With sustainability- and PRME-oriented research, the HS PF contributes to and provides solutions for the current and future challenges of our society. Please find below more detailed information on research institutes and research activities at HS PF with a sustainability and PRME focus.

Research Institutes and research projects

The **Institute of Industrial Ecology (INEC)** was founded in 2010 and focuses on analyzing energy and material flows between the technosphere and ecosystem. The interdisciplinary team works in the field of ecological and economic optimization of product life cycles and operational production processes with the aim of efficient use of scarce resources. Prof. Dr. Mario Schmidt, Professor and Institute Director of INEC, was included in Stanford University's „World's Top 2% Scientists“ list in 2022. The prestigious list includes the most cited scientists worldwide and is published by researchers at Stanford University.

The **Center for Consumer Research and Sustainable Consumption (vunk)** bundles the interdisciplinary research activities at the university on issues relating to the future society. It offers a platform for applied research in the field of consumer, user and sustainability research. It facilitates transfer, exchange and cooperation with and in relation to government agencies, civil society, business, media and politics.

In addition to the research activities of the previous institutions, further projects on PRME and sustainability-related research took place in 2022 and 2023, two of which are presented below:

ULTIMO

As part of the project, user-centered, sustainable mobility is being promoted at three European locations through the use of autonomous vehicles in order to provide an alternative to the current mobility paradigm.

ESG-HR

The project examines the current status of sustainability reporting by HR (Human Resources) and develops a standard for reporting as well as fields of action for HR to successfully implement ESG (Environmental, Social and Corporate Governance) and sustainability in the company.

The research activities relating to sustainability and PRME are also reflected in the third-party funded projects started by the research institutes in 2022 and 2023. More than half of the newly launched research projects are related to sustainability and PRME (see table 1). The Institute for Applied Research (IAF) publishes the diverse **research activities** of HS PF in an annual report.

Table 1: Comparison of the proportion of newly launched R&D third-party funded projects related to sustainability and PRME

Year	2021	2022	2023
New projects	22	23	23
Sustainability and PRME reference	41%	52%	57%

PhD programs - Cooperative doctoral college KLIREC

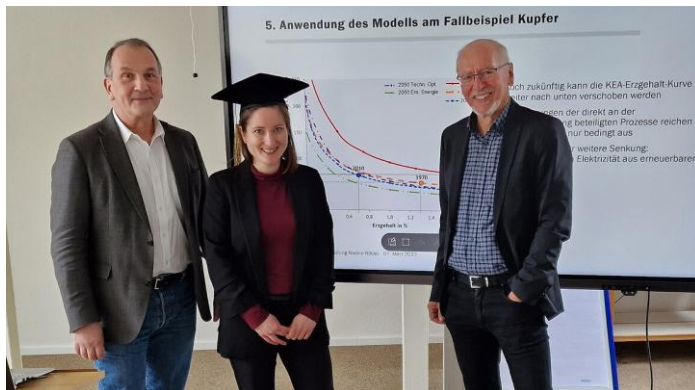
Universities of Applied Sciences do not have their own right to award doctorates. However, doctorates can be made possible through cooperation with universities.

Together with the Karlsruhe Institute of Technology (KIT), HS PF has been running the cooperative doctoral program **Climate, Resources and Circular Economy (KLIREC) - Interrelationships, Synergies and Trade-offs** since 2022. Until 2027, scholarships will be offered for up to 15 doctoral students working on interdisciplinary research into climate protection, resource conservation and the circular economy.

Communication of PRME-related research

In addition to traditional academic publications, PRME-related research activities are also published in the annual university journal **KONTUREN**. A new „Sustainability“ section was introduced with the 2021 edition, in which sustainability- and PRME-related research activities have since been published alongside the university's general sustainability activities.

KONTUREN reaches all members of the university as well as external interested parties and reflects the diverse activities of the past two semesters of the entire HS PF.



Taking the center stage after completing her doctorate: Nadine Rötzer with her supervisors Prof. Dr. Armin Grunwald (KIT, right) and Prof. Dr. Mario Schmidt (INEC, left). Ms. Rötzer wrote her doctoral thesis on the energy required for copper extraction and the assessment of future raw material availability at the doctoral college „Energy Systems and Resource Efficiency“, which was carried out by the HS PF together with the KIT until 2022.

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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.

HS PF builds on constant exchange with representatives from business and society. Networks have been created and knowledge and insights from sustainability-oriented research have been transferred in order to actively shape sustainable action beyond the university boundaries. At university management level, this professional exchange is institutionalized in the Rector's Club, to which well-known companies in the region belong.

Involvement in PRME networks

As part of the **PRME Global Students Ambassador Program**, 20 management students took part in a ten-week series on corporate sustainability and responsible management and were able to discuss business challenges with experts and develop creative, measurable and sustainable solutions in group work. Four students from the Business School successfully completed the program.

One of them is our student Luca Schmidt (Master of Life Cycle & Sustainability), who subsequently received a scholarship to attend the 10th Responsible Management Education Research Conference (RMER) at the ISCTE Business School in Lisbon.

The PRME conference offered the scholarship holders the opportunity to give presentations as part of the PGS Student Ambassador Program. Luca Schmidt spoke about „Student Commuting at Pforzheim University“ and presented the challenges and opportunities of student mobility at Pforzheim University.

„Overall, attending the 10th RMER conference in Lisbon was an incredibly enriching experience. It not only allowed me to deepen my knowledge on important topics, but also to make new contacts in the global community of responsible management education. I am grateful for the support of the scholarship and look forward to incorporating the knowledge and connections I gained into my future endeavors in responsible management,“ he concludes.

Pforzheim University's participation in this program supports the sustainability-oriented education of future leaders and encourages all students to take advantage of opportunities to become ambassadors for change.

HS PF is in regular contact with other PRME member universities and is represented at the network meeting of the PRME Chapter DACH. A joint newsletter reports on university and student activities, research projects and upcoming events, among other things. For example, in the May/July newsletter, HS PF reported on its inclusion in the „Transformative Skills for Sustainability“ network initiative of the Stifterverband für die Deutsche Wissenschaft e.V. and in August/December on the successful participation of four students in the PRME Global Students Ambassador Program

Since 2021, HS PF has also been an institutional member of the **German Association for Sustainability at Higher Education Institutes (DG HochN)**. The network promotes sustainable developments at universities and brings sustainability stakeholders together across Germany. In numerous joint hubs, there is an exchange on relevant sustainability topics at universities. In June 2022, HS PF offered its own hub as part of the public hub series „Sustainable Procurement“ on the topic of „Possibility of a university being awarded the Fairtrade University label using the example of Pforzheim University“.



Luca Schmidt (right) at the 10th RMER Conference at the ISCTE Business School in Lisbon
©private



Principle 6 - Dialog

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:

Symposium on sustainability and resource efficiency

After more than ten years, the INEC has replaced the lecture series in the winter semester 2022/23 with the **Sustainability and Resource Efficiency Symposium**. The symposium offers space for external and internal speakers as well as alumni of the two Bachelor's and Master's degree programs with a focus on sustainability. In previous symposia, the main topics were

- Life cycle assessment (winter semester 2022/23),
- Current research and industrial implementation of the circular economy (summer semester 2023) and
- Sustainability Reporting: Claim and reality of sustainability reporting (winter semester 2023/24).

Industry meets university

The **Industry Meets University** lecture series was launched by the Pforzheim University in cooperation with the „Hochform“ (WSP) cluster initiative. Its main aim is to support companies in the Pforzheim- Northern Black Forest economic region in their innovation activities. In addition, the intensive exchange between science and practice is intended to promote insights into the development processes of innovative products and production methods. The lecture series also addresses topics related to PRME and sustainability, such as „Circular Economy - resource-efficient technologies and implementation approaches for companies“ in October 2022 or „Energy management and climate protection in companies - obligation or opportunity?“ in October 2023.

Commitment to fair trade

Since May 2022, HS PF has been a **Fairtrade University**, a university that is committed to fair trade and integrates it with all its aspects into everyday university life. To this end, HS PF offers regular fair trade events, networks intensively with other fair trade actors from the region and provides fair trade products at various points of sale on campus and at university events

Examples of event formats and topics

- Hands-on fair electronics: students solder a computer mouse (06/2022)
- FAIRer your home! Lecture and plant exchange campaign with Fairtrade Germany (11/2022)
- Online lecture on Fairtrade and the Fairtrade labels (12/2022)
- Change Fashion: Lecture on slow fashion and clothes swapping (04/2023)
- City walk through Pforzheim: On the trail of fair coffee (06/2023)



Vice President Prof. Dr. Ingela Tietze and Rector Prof. Dr. Ulrich Jautz are delighted with the award as a Fairtrade-University ©Cornelia Kamper

Lecture series Studium Generale

Since 1985, the **Studium Generale** lecture series has regularly attracted a large audience from Pforzheim and the surrounding area, filling the Audimax with several hundred listeners. The following lectures with a focus on sustainability and ethics are particularly noteworthy:

- Prof. Dr. Ernst Ulrich von Weizsäcker (04/2022) „A new enlightenment for the whole world - 50 years of „Limits to Growth“
- Sven Plöger (05/2022) „Heat, drought, heavy rain - Can we still save ourselves?“
- Klaus Scherer (11/2022) „Hate online: Despite hate speech, the glass is half full“
- Prof. Dr. Mario Schmidt (11/2022) „Is the gold town of Pforzheim also a cycling capital?“
- Dr. Dr. h.c. Heiner Bielefeldt (12/2022) „Misjudged human right? Current debates on religious freedom“
- Dr. Bernhard Pörksen (03/2023) „The art of talking to each other in times of great irritation“
- Rüdiger von Fritsch (04/2023) „Turning point. Putin's war and the consequences.“
- Dr. Katajun Amirpur (05/2023) „Iran - what's next for the uprising stand against the theocracy?“
- Prof. Dr. Hanno Beck (12/2023) „Happiness - What really counts in life“

Stakeholders present their sustainability activities at HS PF

For the second time, university members and interested parties were able to find out about a wide range of topics relating to various aspects of sustainability such as climate protection, energy management, biodiversity and social responsibility on **Sustainability Day** at HS PF.

The event was supported by various institutions and organizations and a great range of projects, ideas and commitment was presented. A particular highlight of the day was the presentation by Anika Neugart on the topic of „Slow Travel“. The speaker explained how traveling with care and mindfulness not only protects the environment, but can also lead to a more intense and fulfilling travel experience.

The day ended with the play „Das Ding“ by Philipp Löhle at the Stadttheater. During the subsequent panel discussion, the audience was able to discuss the topics of sustainability and global responsibility raised in Löhle's play with Vice President Prof. Dr. Ingela Tietze, among others.

Student commitment

Some students at HS PF are actively shaping everyday university life and the campus in a more sustainable way. At this point, we would like to highlight the student commitment to sustainability and PRME.

The student initiative **Remedy e.V.** deals with issues relating to the environment and sustainability. The purchase and operation of the Fair-o-mat, the cultivation of herbs and vegetables on campus and waste collection campaigns are examples of their initiative work.

InitiAID e.V. is an initiative that promotes and supports people in need with educational projects. Examples include a Welcome Café for potential students with a refugee background and the Vrygrond Community Lab in Cape Town.



Campus garden of Remedy e.V. ©Irina Pfitzenmeier

The **Rennschmiede** initiative designs, constructs and manufactures a new formula race car every year, with which it competes against student racing teams in an international design competition. The Rennschmiede students take into account the growing importance of sustainability in the automotive industry and have been building electric racing cars since August 2019.

In addition, HS PF is involved in many other forms of sustainability dialog, only a few of which can be mentioned here. For example, Prof. Dr. Ingela Tietze is a member of the Scientific Advisory Board of the Network of Universities for Sustainable Development (HNE) in Baden-Wuerttemberg and Prof. Dr. Mario Schmidt was appointed to the jury of the „Blue Angel“ environmental label in 2022.

Further Information

This is the 8th 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 summer semester 2022 up to and including the winter semester 2023/2024. The figures for research projects and certificates refer to calendar years instead.

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