2014 Report on Progress
UN Principles for Responsible Management Education
Our Profile

Reutlingen University is one of Germany’s leading universities, offering international academic programs with close ties to industry and commerce. On our campus we have around 5400 students spread across five different departments: Applied Chemistry, Engineering, ESB Business School, Informatics, and Textile & Design.

Professors, visiting lecturers as well as administrative and technical staff guide these talented young people along their academic path. The spirit of communication is very open-minded. On the one hand, most professors and lecturers maintain close contacts to business companies and civil society groups. These information exchanges and joint research networks ensure that we offer the best possible combination of theory and practice. On the other hand, student initiatives are more than welcomed. Administrative and technical staff provides valuable support in communicating and realizing series of lectures, discussion rounds and other student’s projects.

Reutlingen University offers 39 degree programs at the bachelor and master level, in which we train the top executives of the future. All our degree programs are accredited with internationally respected agencies. At the same time it is very important to us to support our students’ personal development and to ensure that they become specialists and managers for whom social responsibility is second nature.
Our Vision

We work hard to prepare our students for future challenges. These challenges are global and complex in nature. Thus we are constantly deepening our research, improving our teaching, and expanding our extra-curricular courses.

The Principles for Responsible Management Education (PRiME) are leading guidelines for making our vision a living reality. We are committed to fostering global responsibility and we are proud to be a PRiME member. In February 2014 we signed the founding contract of the German Speaking PRiME-Chapter called “DACH”.

The International Dimension and Beyond

Reutlingen University is a university for engineering, business, computer science and design. We cooperate with more than 140 partner universities world-wide. 25% of our student body has an international background and comes from 80 different countries. In return, every semester around 600 Reutlingen students go abroad.

The international dimension, the interdisciplinary approach, and the practically oriented degree programs build a creative environment that enables effective learning experiences for responsible leadership. We consider the diverse background of our students and staff as an inspiring driving-force to develop innovative teaching methods. Currently, we are working on a concept for universal social responsibility management. The aim is to initiate individual reflection processes in each faculty on how to implement social and environmental values in research, lectures, and in its organizational culture.

Renewal of our Commitment

We see PRiME as a continuous process for reflection and improvement. This is our second report on progress in which we document the major achievements since 2012 and our future objectives. The most important effect of this regular reporting procedure is the constant dialogue on campus how to implement the six principles for responsible management education.

Herewith we renew our commitment to proceed on this path to educate responsible future managers in cooperation with our stakeholders and exchange effective practices related to these principles with other academic institutions.

Prof. Dr. Hendrik Brumme
President of Reutlingen University
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Imprint

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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.

Foundation Ceremony of PRME Regional Chapter DACH
Innsbruck, February 2014
Overview

Successful change management needs dedicated people.

The team for ethics and sustainable development at Reutlingen University is in charge of inspiring colleagues and students with the idea of global responsibility. Thus the first part of this progress report concentrates on human resources developments in the team and the shifts in its working areas.

We are aware that our own organizational practices serve as example of the values and attitudes we convey to our students. That is why part of our mission concerns the internal structure, self-perception, and network activities at Reutlingen University.

Furthermore the team each semester develops a particular program with lectures and university seminars, which is described in detail in the next part of the report. Having attended a particular number of seminars, students get the opportunity to receive the “Ethikum”-certificate for their extra-curricular knowledge and competences.

Major Achievements

Open-ended Part-time Position

In 2012, the team for ethics and sustainable development consisted of Professor Bernd Banke, Professor Martin Pfost and Eva Schwarz as Consultant for Ethics and Sustainable Development. Ms. Schwarz had a temporary employment for two years ending in September 2013.

The university’s steering committee, working together with the Ethics Officer and the Sustainability Officer, managed to establish an open-ended part-time position. Since December 2013 Dr. Ulrike Baumgärtner completes the team as new Consultant for Ethics and Sustainable Development.

Administrative Support & Conceptual Refinement

Administrative support is one part of the duties as Consultant for Ethics and Sustainable Development at Reutlingen University. Mrs. Baumgärtner coordinates the extra-curricular course program, assists external lecturers with their courses, advises students on their way to the “Ethikum”, supports projects organized by student’s initiatives, and prepares presentations for the Ethics and Sustainability Officers.

Furthermore, she is the person responsible for writing the PRiME-progress report. To this end, she compiles a structured overview of ethics and sustainability activities at Reutlingen University. The transparent documentation fuels the awareness for responsible education both at the top decision-level of the university as well as among all lecturers.

In addition to administrative support of the Ethics and Sustainability Officers she contributes to the conceptual refinement of the ethics and sustainability program. Her course on “sustainability of international sport events” e.g. sheds light on the ecological, social, economic, and political dimension of sustainability.
Finally, Mrs. Baumgärtner assists the Steering Committee in preparing public talks and visits.

**Public Relations**

Public relation of all activities of the team for ethics and sustainable development is the third component of the job description as consultant. The extra-curricular courses are announced on a centralized online platform where all students have regular access. In addition, Mrs. Baumgärtner issued a print version of the seminars on ethics and sustainable development.

![Image](image.jpg)

Stand with the student’s initiative “oikos” at the Newcomer’s Day, March 2014

Finally, ethics and sustainability issues are regularly addressed in the speaker’s series called „Studium Generale“. In cooperation with the Reutlingen School of Theology and the University of Education, Reutlingen University organizes around five lecturers each semester.

**Dissertations**

We are a university of applied science. Traditionally, students have no opportunity to write a dissertation at Reutlingen University. There is, however, a controversial political debate about this issue at the moment and research groups and faculties are cooperating with universities to support dissertations. Prof. Banke and Prof. Pfost supervise dissertation projects in the realm of business ethics, corporate social responsibility, and sustainable development.

**DACH as Regional Chapter**

Reutlingen University is sincerely committed to implement PRiME at all levels. Yet, the leading principles are formulated in a very general manner. That is why we are engaged in a number of networking activities to exchange ideas for concrete implementation with colleagues from other universities. In order to intensify the dialogue at the regional level, German speaking universities founded the regional chapter DACH in February 2014. Reutlingen University is a founding member.

In May 2014, we participated at the PRiME-Workshop “Launching and Implementing a Responsible Management Education Program” in Copenhagen to get further insights in best-practice examples.

**Future Objectives**

Raising awareness is and will be a crucial matter of concern for the further implementation of PRiME. Ethics and sustainable development is present on the University’s website. But the information about the extra-curricular courses, the requirements for obtaining the “Ethikum”-certificate and the modalities to register still have to be optimized.

For the next semester we plan to provide special seminars for lecturers and staff to train the teachers and administrative staff in ethical and sustainable thinking. In October 2014, the Ethics Officer and colleagues from Pforzheim and
Stuttgart will hold a seminar on justice for university lecturers.

In near future, the speaker’s series „Studium Generale” will be fundamentally re-structured. The team for ethics and sustainable development is interested in taking over the coordination of the diverse lecturers. Since the student’s initiative “oikos” also organizes speaker’s series, our aim is to integrate the student’s activities into the general speaker’s series of Reutlingen University. The basic topic should, in our opinion, be ethics and sustainable development according to our perspective.

Finally, the university is in a process of deciding whether to join the Eco-Management Audit Scheme (EMAS). EMAS is a voluntary management tool for companies and other organizations to evaluate, to improve and to report their environmental performance. It has been launched by the European Union in 1993. Originally, it was meant to motivate companies operating in the industrial sector to analyze its environmental impact, to provide public information on this matter and to start a continuous process of improvement. Twenty years later, the political initiative is a well-known instrument for both private companies and public administrations to improve their environmental performances. A number of German universities have undertaken the certification process and have obtained the EMAS-label. The Sustainability Officer strives for participating in the eco-management audit.

“I clearly support the idea to start the EMAS-certification process at Reutlingen University. It is a well-proven standardized management tool that supports organizations to reduce their environmental footprint.”

Thomas Poreski, Member of Parliament, Landtag Baden-Württemberg
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.
Overview

Responsibility, respect, reliability, and tolerance are values that professors at Reutlingen University incorporate in their research and teaching activities. There are numerous examples that aspects of global social responsibility are explicitly addressed in curricular courses at Reutlingen University. On the one hand, this part of the progress report provides a preliminary overview of curricular courses that integrate ethics and sustainability aspects.

On the other hand, it describes in detail the ethics and sustainability program we offer our students in addition to their curricula. Herewith, students get a chance to extend their horizons and look at current problems that affect us all, for example, climate change, shortage of resources, or what responsible business practices mean. Our aim is not only to transmit knowledge but also to offer a code of practice to guide action. The ethics and sustainability program invites students from all faculties and builds the basis for the extra-curricular certificate called “Ethikum”.

Major Achievements

Curricular Courses & Ethics and Sustainability

Applied Chemistry
- Master of Engineering/ Environmental Protection (Prof. Honnen/ see also our progress-report 2012)

The well-received Master Program is organized by four universities: Reutlingen, Esslingen, Nürtingen, and Stuttgart. Each university contributes its specific know-how. Students attend courses at all universities and thus gain a complete picture of the cross-sectional topic environmental protection. At Reutlingen University the lectures tackle ecological analysis or ecotoxicology but also intercultural management or rhetoric in order to prepare students to work, for instance, in public administrations.

ESB Business School
- Business Ethics: regular course (Prof. Banke)
- Intercultural Management: regular course (Prof. Grünewald)
- Simulation UN Climate Summit: project in course “marketing & strategy” (Prof. Kapmeier)
- Industrial Ecology: regular course (Prof. Kleine-Möllhoff)
- Student Project Sustainability: project in course “project management” (Prof. Kneip)
- Ethical Problems of Globalization from the Perspective of Developing Countries or Minorities: regular seminar (Prof. Theile)
- Ethics and Corporate Social Responsibility in a Global Context: regular seminar (Prof. Theile)

This section describes the “Student Project Sustainability” and the “Simulation UN Climate Summit” more detailed as they differ from conventional teaching formats.

The “Student Project Sustainability” is integrated in the course “project management”. Students
were asked to draft a concrete manageable project on sustainability until May, 15th 2014. A group of students contacted the team for ethics and sustainable development and proposed to join an initiative that offers online courses on sustainable development at a virtual academy. The vision of the students is that Reutlingen University participates in this initiative; puts own courses on the platform; integrates the attended courses in its ECTS-system; and organizes exams for the online courses.

The second project relates to political discussions on how to prevent global warming. The UN International Panel on Climate Change states that we can only avoid dangerous consequences from climate change by limiting the temperature increase to 2°C by 2100 over pre-industrial average. Even though some nations commit to reduce greenhouse gas emissions, nations’ leaders do not jointly agree on the size of emissions cuts, if at all. Master students at the ESB Business School in Reutlingen were able to experience the difficulty of these negotiations and the demanding underlying topic of climate change by simulating the United Nations Framework Convention on Climate Change (UNFCCC) negotiations. The students were divided into groups and assigned to different nations or blocks including the EU, USA, China, India, and Other Developing Countries to represent the different situations of the nations or blocks taking part at the UNFCCC negotiations. Moreover, environmental activists and fossil fuel lobbyists tried to influence the officials’ decisions during the negotiations. Negotiators had to agree on the year to stop growth of CO₂ emissions; the feasible year of CO₂ emissions reduction start; the annual percentage of CO₂ reduction; deforestation, and afforestation, if possible. The negotiation simulation is supported by the official UN-approved simulation tool C-Roads, which is based on a scientifically peer-reviewed system dynamics model – and which the actual climate negotiators use at the annual UNFCCC meetings to simulate impacts of climate policies.

**Mechanical Engineering**

- The construction of a wind generator: elective course (Prof. Truckenmüller)

In an extra-ordinary course 16 students built a wind generator in one week.

In cooperation with the Group “BÖEE” the students built the wooden wings, constructed the metallic parts and connected the electric components for the energy generation. The wind generator is 2m high (without tower) and produces 150 Watt for charging mobile phones, laptops or electric bikes.

- Master of Power and Microelectronics at the Robert Bosch Centre for Power Electronic (Prof. Scheible)

The curriculum of this Master Program was designed to reflect the current requirements of industry in terms of the development of electronic components and electronic systems. Applications in electro mobility or wind power and photovoltaic directly support the increase in renewable energy systems. Currently, energy generation is in a fundamental transformation process in Germany. The master program qualifies students to take part actively in...
transforming centralized conventional facilities in decentralized factories of renewable energy production.

Medical Technical Computer Science
Nearly all lectures address ethical questions since the implementation of computer science techniques in the medical field raise many issues regarding responsibility, ethical behavior of humans and systems, and interdisciplinary teamwork.
The lectures "Standards and Processes" (Prof Thies, Prof. Burgert), "Quality Management" (Prof Steddin) are culmination points for many ethical topics. In "Statistics and Biometry" (Prof Thies, Prof. Burgert), the students learn to work with statistical data and how to draw concrete conclusions from field research data. Those skills are essential for interpreting the diverse and sometimes confusing "world of experts". The students are encouraged to bring in their own perspective and select elective topics which they want to discuss in their project work.

- IT-Security in Medical Science: regular course (Prof. Tangemann)
The course addresses security issues in collecting, storing, and communicating information in medical services. It aims at presenting current developments in technical applications as well as discussing related ethical and moral questions.

Textile & Design
Several courses and lectures address topics such as sustainable management, natural materials, renewable raw materials, and social aspects of the textile industry.

Extra-Curricular Courses in Ethics and Sustainability
Students of all faculties at Reutlingen University have the opportunity to attend further courses on ethics and sustainability issues. The dedicated program exists since 2001. Being the Ethics Officer of Reutlingen University Prof. Banke joined as the regional network RTWE (Referat für Technik- und Wissenschaftsethik an den Fachhochschulen des Landes Baden-Württemberg). The network organizes regular meetings to exchange ideas and information on current courses on ethics and sustainability. RTWE confers the “Ethikum” as extra-curricular certificate. It proves that students have an in-depth knowledge in the area of ethics, sustainable development, and interpersonal skills. Students that attend courses at Reutlingen University or other universities of applied sciences in Baden-Württemberg acquire “Ethic Credits”. In order to obtain the “Ethikum” they need 100 Ethic Credits.

Ten students at Reutlingen University completed the whole process and received the certificate. Currently, Mrs. Baumgärtner supervises nine students on their way to the “Ethikum”- certificate.

The scope of the extra-curricular ethics and sustainability program has significantly broadened. In 2013, the program comprises four courses. In 2014, the team for ethics and sustainable development offers the students ten
courses. The format varies explicitly: online courses, a summer school, and workshops alternate to make it easier for students to integrate the courses in their “normal” studies.

In concrete terms, students may attend the following courses:

- Introduction to Ethics (online course)
- Introduction to Sustainable Development (online course)
- Corporate Social Responsibility and Communication (three-day workshop)
- Sustainable Development and Global Dynamics (four-day workshop)
- Social Sustainability – Buzzword or Vision for Social Work? (four-day workshop)
- The Sustainability of International Sport Events (seminar, three days)
- The Sustainability of Global Feeding (seminar, three days)
- Moderation and Social Processes (two-day workshop)
- Sustainable Textile Industry (summer school)

Future Objectives

The above documented list of curricular courses that integrate a perspective of ethics and sustainability on the specific subjects at hand is rather ad hoc and results from informal meetings and communication. In order to systematically integrate the perspective in all curricula at Reutlingen University the next step is to consult with the study coordinators of the respective faculties.

A second objective for the near future is the organization of a regular “Ethikum-Colloquium” for students that take part in social projects, such as the coaching of students at secondary schools, the support of refugees, or the assistance of kids with disabilities. An opportunity to meet and reflect on the social projects in a holistic framework of a university seminar might be a valuable offering. The seminar could take place once a semester and the students gain ethics credits for the participation, which is dependent on the engagement in a social project.

Finally, it might be useful for our work to evaluate the impact we make with our extra-curricular program on the studying experience of our students. All graduates at Reutlingen University are asked to participate at a survey that intends to grasp the perceptions of the weaknesses and strengths of the specialist studying programs. The team of ethics and sustainable development is working on questions for the questionnaire to capture the ability of students to reflect on ethics and sustainability issues.

May 2014
Principle 3 | Method
We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.
Overview

In its Mission Statement, Reutlingen University is committed to recognizing the cultural diversity in our society as a positive chance. It therefore strives for a university culture that promotes equal opportunities and family-friendliness, and that develops all existing talents and potentials regardless of sex, age, religion, and social origin.

The members of Reutlingen University are aware of their responsibility in preparing young people for management positions in various specific fields. Aiming at educating responsible personalities professors and staff at Reutlingen University encourage students to engage in social and ecological projects or in political bodies at the university. Students receive individual attention and welcome the open-door policy of the professors and staff.

This part of the progress report highlights achievements in promoting gender equality, in fostering an ecological awareness and in supporting student initiatives.

Major Achievements

Support of Female Careers

The Equal Opportunity Office takes a holistic approach and focuses on supporting those, who are under-represented in different faculties and at different levels of Reutlingen University. In 2014, the office published detailed statistics that reveal the gender ratio of students, staff, and professors.

Overall, 45% of the students, 52% of staff, and 15% of the professors at Reutlingen University are female. The following table shows the gender distribution at the five faculties at the different levels.

As in most private companies and public administrations the female proportion at Reutlingen University decreases the higher the level of employment. In order to enhance an environment that attracts more female job applicants and that increases the change that women are appointed as professors the Equal Opportunity Office compiled a number of activities and demands, for example:

- part-time professorships;
- more women in committees and official bodies;
- flexible working time, incl. home-office facilities;
- active recruitment of women;
- support in periods of parental leave.

A variety of support programmes are available for students and young scientists. Among them are:

- *The Programme for Women Professors* aims at increasing the number of women...
professors at German institutions of higher education. To this end, the Federal Ministry of Education and Research funds up to three tenure-track W2 and W3 professorships for women at universities.

- **Fast Track** is a support program organized by the Robert Bosch Fund for young female scientists from the natural sciences, especially physics, chemistry, mathematics or the engineering sciences.

- **YOLANTE** stands for Young Ladies’ Network of Technology. With this program, Siemens supports female students in engineering/technical and natural sciences degree programs.

- **The Femtec Network** supports ambitious female students in the natural and engineering sciences and offers them early insights into business practice. The career building program prepares young women especially for professional practice.

- **The Young Scientists Award** is provided to female students and graduates who have written very good scientific theses in the area of women and gender research.

- **MuT** is a program which supports young, highly qualified female scientists in Baden-Wuerttemberg in developing their careers. Women who later intend to apply for an academic teaching position are given special support to realize their competences and make the most of their career chances.

- The **Mathilde-Planck Teaching Contracts Program** aims at increasing the proportion of women in academic teaching positions by encouraging teaching contracts to be given to female academics.

In addition to these overall programs Reutlingen University takes active measures to increase the female percentage of students in computer science and engineering. Once a year schoolgirls from the region are invited to get to know these subjects and make first practical experiences. Around 15 girls each year make use of this offer. Similar events were undertaken to invite schoolboys at Reutlingen University and to present the department of textile & design.

**Family-friendly University**

Since 2010, Reutlingen University holds the certificate for "Family-friendly Universities", making clear that it attaches great importance to family-friendly policies. It reports annually to the Hertie Foundation about the latest developments.

Until now, Reutlingen University has already implemented a number of measures to support students and employees in combining work or studies with the demands of a fulfilled family life. The following three core areas of activities have been established:

- **Care for children**: Whether through its Day Care Centre, Campus TigeR or emergency care - the University is keen to make it easier for parents to combine family and work or study and has a variety of child care facilities for this purpose.

- **Campus Holiday Project**: The children of University employees have the opportunity to take part regularly in the varied holiday programs organized by the Campus Holiday Project and the Campus Academy here at the University.
Advice: The Family Services Centre is the first point of contact for mothers and fathers at the University. It provides information, contacts and advice on questions concerned with combining family responsibilities and study or work.

Ecological Awareness

Reutlingen University participates in the initiative “Bike to Work”, which is organized by one of the biggest German health insurance companies AOK and the German Bike Club. Companies and other employers should motivate their employees to use bikes to commute to work. During the period of eight weeks employees are asked to use the bike on at least 20 days. A combination with public transport is possible for those who have to travel long distances. The initiative aims to promote the awareness of a healthy and ecological way of arriving at one’s workplace.

Student Representatives

Due to political shifts in the county Baden-Württemberg in 2011, the so-called „verfasste Studierendenschaft“ has been re-established. This is the legal framework with which students have the right to take part actively in committees and political bodies at universities. As a result, students at Reutlingen University elected their student parliament on May 15th, 2014. The parliament consists of 19 members that discuss student’s interests and teaching improvements. Besides, they organize sport courses and the semester party on the campus. Members of the student parliament represent student’s interests at the Senate of Reutlingen University.

Furthermore, each School has a School Council (Fakultätsrat) which deliberates on all issues which are of fundamental importance to the School. Each School Council is made up of six elected active student representatives together with professors and administrative staff members. These student members of the School Council make up the Student Committee (Fachschaft) of the School. However, as a rule meetings of the Student Committee are open to anyone who is interested, so students who have not been elected can also be active on the Student Committee. This means that anyone who wishes to initiate debates on important topics in their School or to help organize parties can play a valuable role on the Student Committee of their School.

In addition to the institutionalized exchange of student representatives and university board, Reutlingen University asks its students to take part in the evaluation of the teaching courses. On a regular basis the Officer for Quality Management launches surveys for evaluating the organization of courses, the educational methods, and the support service. The careful analysis of the surveys and the constructive feedback to both lecturers and students are fundamental parts of the quality management at Reutlingen University.

PRiME-Related Student Initiatives & Projects

oikos

oikos stands for students for sustainable economics and management. In 2012, students established a group at Reutlingen University, which is also part of oikos International. More
The overall aim is to take new perspectives on sustainability and discuss concrete measures of realization with visionary leaders from business and academia. The following projects are organized by the group and supported by the Consultant for Ethics and Sustainable Development at Reutlingen University:

- series of lectures on different topics of sustainability;
- event for exchanging clothes and workshop on ecological effects of the washing temperature.

Enactus

The name „Enactus“ combines the three principles of the student group which is active in 47 countries: entrepreneurial spirit, the will to act, and the values and solidarity that bind us together.

This semester, Enactus organizes two projects. On the one hand, the student group creates a platform for civil society engagement. Those who are willing to support a social project find information on the platform about non-profit organizations or particular initiatives in the region that are looking for volunteers. On the other hand, it builds up a social business with persons with disabilities. The idea is that people donate the cash deposit from bottles. The people with disabilities restore the bottles and manage the marketing for the project.

The ESB Business School actively supports its student network in its projects that show global social responsibility. Among them are the following two projects.

ESB Cycling Tour for Charity and Children

Every year students undertake a cycling tour to a different European city, under the heading of "ESB Cycling Tour for Charity and Children" - to collect as many donations (aim: 15.000€) as possible for two charity programs (Help for children with cancer Tübingen and Integramus e.V.).

With the help of these donations, children with cancer in the hospital in Tübingen will be cared for in a better and more efficient way. Furthermore, the money will be used to integrate foreign children and adults in Germany coming from the Ukraine and Kenya. The bike tour is not a high performance sport. All that counts is team spirit, getting to know each other, having a lot of fun and working for a good cause.

ESB Model United Nations

Every year in New York City, where the UN headquarters resides, over 5,000 university students from all over the world join a conference for current global concerns in order to keep the UN's legacy and its mission, that is, the purpose of National Model United Nations - NMUN. Through a competitive selection process, 24 passionate students have formed a team for NMUN NY 2014. The team consists of students from 4 different countries. NMUN ESB will represent the delegation of Spain during the conference in 2014.

Future Objectives

Students at Reutlingen University have a diverse background. 20% have a non-German nationality. Many more have ethnically diverse backgrounds. As a university of applied science, Reutlingen is attractive for both students that begin their studies right after high school and students that first make a professional training. In its mission statement Reutlingen University emphasizes that the diversity of humans – cultural and religious
affiliation, age, or physical abilities – as a valuable resource for the university. Equal opportunities for all students and staff are not merely a necessary effort but an essential prerequisite for competitiveness and innovation. Yet, in everyday life the diverse background of the students is a challenge for many teaching courses. The International Office at Reutlingen University supports students by teaching German and foreign languages as well as intercultural communication courses. In order to develop further measures to manage diversity, Reutlingen University undertakes an auditing process in cooperation with the Stifterverband für die Deutsche Wissenschaft. A group of professors and staff is currently working in workshops to define diversity management for their working contexts and develop concrete measures for implementation. The integration of student representatives is planned for a later date.

The efforts to begin the Eco-Management Audit Scheme (EMAS) have been described in part one of this progress report.

Both auditing processes expand the workload of the existing staff that is working in the fields of gender equality, ethics and sustainability. Thus, an extension of the qualified staff is desirable and necessary to ensure concrete changes at Reutlingen University.
Principle 4 | Research

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

Prof. Dr. Thomas and his team received the Energy Award for his research in Micro-cogeneration (2013)
Overview

Reutlingen University is an institution of applied science. Traditionally it focuses on the highly qualified education of future business leaders in various branches. More recently, the research activities have gained increasing importance. In 2014 the research related third-party funds increased by 40% compared to 2013.

The diverse research structure makes use of an interdisciplinary approach that enables research projects to be considered in the light of different perspectives or to raise and develop new questions.

Unique to this school, Reutlingen University has established centres that combine teaching and research activities. Until today, three centres are and will be established: the Robert Bosch Centre for Power Electronic (RBZ; 2009), the Herman Hollerith Centre (HHZ; 2013) and the Center for Decentralized Energy Systems and Energy Efficiency (2014). The following part of the progress report summarizes research projects at Reutlingen University that relate to ethics and sustainability and herewith to the principles of responsible management education.

Major Achievements

PRIIME-Related Research at the RRI

The Reutlingen Research Institute (RRI) is the central scientific facility at Reutlingen University; all activities in the area of research and development are concentrated here. Research projects are organized in various research groups and research centers that cover ten research areas: the logistics center, the Robert Bosch Centre for Power Electronic, process analysis and technology, energy efficiency, service computing, simulations, sports marketing, computer assisted medicine, manufacturing and textile process engineering.

The following projects relate to sustainability issues, such as energy efficiency, electro mobility, or the use of recycle textile materials.

Environmental Concerns in the Design and Management of Paletts (Prof. Kleine-Möllhoff)

In 2012/2013 Prof. Kleine-Möllhoff spent a sabbatical term at the University of Sydney. He took part in a research project that analysis the ecological impact of paletts systems. He took a holistic perspective and integrated the material (e.g. wood, synthetic, steel) as well as the mode of transportation in its ecological accounting model. The model distinguishes different phases in order to find solutions to minimize the CO$_2$-emissions in different phases of logistics and transportation: the manufacturing and design of paletts as well as modes of transportation.

Micro-Cogeneration (Prof. Thomas)

Prof. Thomas and his team study the efficiency of Micro-cogeneration systems focusing primarily on primary energy savings. In this respect, they work on enhanced operating strategies within the Micro-CHP system including the energy management of the thermal storage tank. In 2013 they received the Energy Award for the sustainable efforts in improving primary energy savings and reducing CO$_2$-emissions by implementing Micro-CHP systems in the realm of constructions and reconstructions of buildings.

“We provide electro scooters and electro bikes for members of Reutlingen University for free use. In doing so, we seek to enhance the acceptance of this new technology. At the same time we use the practical experiences for further research.”

Prof. Dr.-Ing. Gerhard Gruhler
Waste Heat Utilization (Prof. Opferkuch/ Dipl.-Ing. Ostermann)
In chemical and mechanical processes the occurrence of waste heat is often unavoidable. Thus, only the use of this waste heat can make those processes more energy efficient. At the same time, the process of waste heat utilization demands a great heat resistance of the instruments. Prof. Opferkuch and Dipl.-Ing. Ostermann developed both a highly efficient way of using waste heat and a special compact and robust instrument.

Electro Scooter/ Electro Bikes (Prof. Gruhler)
In Germany, the use of electro bikes has increased only recently. There is still strong skepticism that bikes or scooters stop suddenly because of low batteries. And indeed, the range of coverage is still hard to predict as speed differences in heavy traffic or differences in height are not yet adequately transmitted to the display. Prof. Gruhler’s research projects contribute to improving the deficits of electro mobility systems.

Energy Efficient Control of Induction Machines (Prof. Schullerus)
Induction machines are widely used in industrial applications. One of their major drawbacks is the decrease of efficiency during operation with load torques below the rated value. To increase the overall efficiency of induction machines control algorithms for an energy efficient control are developed in the drive control laboratory.

Medical Technical Informatics
The research group CaMed bunches the research activities of the faculty of informatics at Reutlingen University. Prof. Burgert, Prof. Thies, Prof. Steddin, Prof. Tangemann, Prof. Martinez, Prof. Kloos, Prof. Tullius, Prof. Petrov study issues such as computer assisted surgery and therapy, computer assisted diagnosis and planning, information systems for hospitals, rehabilitation, process support in the area of hospitals, and personalized medicine. The research group cooperates with companies for medical technology, hospitals and university hospitals as well as other research groups in Germany and abroad.

Flash Memories with radically different properties are an evolving storage technology. Existing concurrency control approaches, optimization techniques, buffer management strategies, access paths and in essence the whole DBMS architecture are designed to compensate for traditional storage media (hard disks). To make full use of the characteristics of evolving storage technologies (such as Flash-SSDs), the existing architectural fundamentals need to be critically reevaluated. Since Flash-SSDs will have different impact on Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) systems, we propose to study the impact of flash-SSDs on OLTP systems as well as data warehouses.

Textile Process Engineering and Product Development (Mr. Eng. Nebel)
The work of this research group bases on an interdisciplinary and cooperative partnership with different subject areas as well as different companies and institutions. Sustainability - in an ecological and economic sense, but also in the sense of cooperation with our customers and partners - is of paramount importance for the activities of the group. Due to the world-wide growth in demand for raw materials, the need for commodities made from fibres and composites is also growing constantly. Innovative textiles and technical products from
fibres can be found in the most varied industrial products. The use of natural fibres and recyclables in industrial production demands critical accounting to balance the demands of manufacturing processes, the characteristics of the materials, costs and potential uses. The basis for manufacturing a sustainable range of industrial products is objective quality control as well as optimized extraction and preparation technologies.

In 2013, Mr. Eng. Nebel received the research award of Reutlingen University for his inventions and contributions to the research in this specific area. Currently, the group studies the following projects.

- Micro fibrils from natural fibres for high-performance applications
- Technologies for the production of injection moulded parts by the textile fraction of recycled tires
- Pellets for injection moulding from recycling materials
- Surface modification of stoneware paving tiles for a minimum use of cleaning agents
- Non-yellowing bra cups made of fibre composites
- Innovative processing and production technologies for natural fibres
- Regional, sustainable and ecological production of textiles
- Natural fibres for construction industry/ ecological insulation systems
- Development of a cross flow shredder (Querstromzerspaner) for raw fibre and paper materials
- Water footprint of fibrous raw materials
- Development of ecological adhesive systems
- Coatings for fashion industry

PRiME-Related Research at the RBZ

The Robert Bosch Centre for power electronics (RBZ) is a research and teaching association in which the Bosch Group, Reutlingen University and Stuttgart University have come together. This cooperation is the first and until now the only one of its kind in Germany. At the rbz students can take Bachelor's and Master's degree programs that focus on power and microelectronics, and can study in Stuttgart or Reutlingen, depending on their chosen program. There is also the possibility of studying for a doctorate. The close cooperation with Robert Bosch GmbH provides practical industrial training, which gives students the best possible preparation for the demands of developing the technology of the future.

The following project relates to ethics and sustainability.

- Development of a highly innovative modular battery storage system which is particularly suited for the upgrade of existing residential photovoltaic installations

PRiME-Related Research at the HHZ

The Herman Hollerith Centre for Services Computing is a cooperative venture involving universities in Reutlingen, Esslingen and Stuttgart, as well as the city and county of Böblingen. The HHZ offers young people modern training programs in future-oriented professional fields, with the option of progressing to doctoral level. This is a research oriented Excellence Program combining academic and practical elements in the field of “Services Computing” – the development of Web 3.0.
The following projects relate to ethical questions, including the use of internet in non-democratic countries or the economic and social dynamics of social networks.

- Discovering the Internet- and Social Media Economy in China (cooperation with Harvard Business School).
- Drivers of eWoM-Strategies and Customer Co-Creation in Social Networks (cooperation with Indian Institute of Management Bangalore).
- Social Media Strategies for Small- and Medium-Sized Business (BMBF Initiative).
- Vitalization of communication patterns in Enterprise Social Networks (cooperation with ZF Friedrichshafen).
- Economic effects of service experience in social media channels (Telekom Germany).

**Future Objectives**

The German federal government has decided to phase out nuclear power. This has resulted in a fundamental shift in energy producing technologies. A highly centralized system of energy production has to be transformed into a decentralized system with a mix of renewable energy resources and energy efficiency systems. To this end, Reutlingen University is going to establish a third center for research and teaching activities that focus on this transformation process. In cooperation with a number of companies and the Karl Schlecht Foundation, Reutlingen University will set up a Master Program for 30 students per year. In the academic courses which are oriented towards the practical problems corporate partners are confronted with, students will literally be taking part in the “energy revolution”. In the near future, Reutlingen University will be educating 30 qualified employees per year in a market of the future.
Principle 5 | Partnership

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

ESB Business Fair
Overview

Reutlingen University is an institution of applied science. Thus, the interaction with managers of corporations and the university is very active and fruitful. The ESB Business School, for example, has an external advisory committee with leading figures from the world of business. The central tasks of this committee include consulting and support for the improvement and new development of study programs, new impulses for positioning ESB Business School in the German and international university landscape, presentation of the business school to the public and the extension of international partnerships.

The previous chapter highlights the research activities that incorporate the principles of global social and environmental responsibilities. These activities would not exist without financial contributions from the private sector and the know-how of empirically urgent problems and technological changes.

Reutlingen University considers itself a think tank and “do tank”. Its research activities contribute to innovative developments in a variety of industry and business sectors. Its teaching activities contribute to the education of highly qualified and reflected personalities that will enter the business world and hopefully will make a difference from “business as usual”.

This part of the progress report summarizes the modes of interaction with business corporations that exist at Reutlingen University.

Major Achievements

Business Fairs

ESB Business School holds two company fairs each year, designed to provide opportunities for contacts between students and companies. The fairs are organized by ESB students, supported by the Career Center. ESB students are given the opportunity to find out more about the companies through their thirty-minute presentations, and to contact company representatives at their stands.

The TIC Career Day is organized by the faculties of applied chemistry, informatics, and engineering. 60 company representatives took part at the fair this year. Students of technical subjects have the opportunity to meet potential employers for one day at the campus.

The Contexme is the business fair organized by the department of textile & design. It takes place each year and attracts around 30 exhibitors.

Start-Ups on the Campus

Reutlingen University is member of the IHK (Industrie und Handelskammer, Chamber of Industry and Commerce) Campus Start-up Network (in cooperation with the universities in Tübingen, Albstadt-Sigmaringen and Rottenburg). Thus it supports students and graduates on their way to self-employment. In the winter semester there is a University-wide Business Plan Seminar with experienced entrepreneurs. Further, Reutlingen IHK offers individual advice. Reutlingen Town Council gives start-up loans to support new businesses. Together with Reutlingen Town Council, the University makes free office space available to students and graduates in a trailer with three offices, network access, electricity, a small kitchen and sanitary arrangements.
Pakilia and Global Flow are two success stories for Start-Ups of former students. Pakilia supports Mexican craftspeople and sells fair trade silver jewelry from Mexico: http://shop.pakilia.com/UEber-pakilia/

Global Flow is a consultancy for waste management that helps companies to combine profitableness and sustainability: http://www.global-flow.de/

Campaign “Frauen Wirtschaftstage”

The Ministry of Finance and Economy in Baden-Württemberg executes a campaign for supporting women in economy once a year. Reutlingen University regularly participates at the “Frauen Wirtschaftstagen” and organizes lecturers or workshops to one of the following topics: comeback after parental leave, women in senior management positions, female entrepreneurs or work-life-balance. The campaign is an opportunity for networking and cooperation among private business and public institutions.

Alumni Network

The tight network of current and graduate students at Reutlingen University is outstanding. The Alumni community is an example of the strong network. The association ESB Reutlingen Alumni e.V., e.g., currently has more than 4,100 graduate student members all over the world, and is one of the strongest graduate networks of all German business schools. It aims at promoting knowledge and research in international business and it seeks to support the professional development of students and graduates. In addition to the participation at meetings and workshops Alumni are integrated in teaching activities. Katharina de Biasi, for instance, regularly presents coffee circle as example for a social business. And Petra Mitschke offers a three-day-workshop for students to develop a business plan for sustainable management. In doing so, they directly contribute to the transfer of knowledge from the business world into academia and education.

In January 2014, a graduate of the faculty informatics donated an award of 1.500 Euro for outstanding student projects. Michael Tews founded the company Aicomp after his studies at Reutlingen University. He likes to recruit graduates from Reutlingen as he appreciates the good education.

Public Discussions

There are regular public discussions at Reutlingen University. In November 2013, Prof. Seiter discussed with the rhetoric expert Nikos Andreadis if the catastrophic ecological consequences of our wealth and consumer
behavior might be reducible and if a societal well-being could be realized without economic growth.

Another public discussion early this year picks up the relationship between sports and commerce. Ailing football clubs profit from the sponsoring of shirts or stadiums. Does such a distinct influence change sport events and the sport in general? Who profits and who pays for it? And what happens to the non-professional sport that does not receive such a sponsoring? A panel of sport officials, representatives of sponsoring companies and Prof. Nufer discussed these interesting questions.

Future Objectives

In the near future the university’s steering committee seeks to further intensify the exchanges between alumni and managers of business corporations. Dr. Karolina Wrobel, External Relations Manager, is creating a concept for win-win situations. Each school has different strengths and needs. The aim is to develop fundraising ideas that address individual circumstances and are mutually beneficial for all partners. In doing so, business corporations and Reutlingen University collaborate to realize the vision of a global, social, and environmental value system.

As a next step, the team for ethics and sustainable development prepares in cooperation with the Weltethos Institut Tübingen and Ashoka an exclusive forum for companies on issues of corporate social responsibility, social business, and social entrepreneurship. The forum will take place in July 2014.
Principle 6 | Dialogue

We will facilitate and support dialogue and debate among educators, students, business, government, consumers, media, civil society organisations and other interested groups and stakeholders on critical issues related to global social responsibility and sustainability.

Visit of Secretary Bauer and Thomas Poreski, Member of Parliament. Test of a scooter with electromobility. 2014
Overview

Fostering global social and environmental responsibility is a challenge that requires common efforts. Schools and universities, churches or parents or the media cannot initiate a re-thinking of society on their own. Networking activities are necessary to reach different audience groups through different media. The dialogue about the principles of responsible management education is crucial to constantly develop small projects that contribute to a small extent to the realization of global social and environmental values.

Reutlingen University is active in different networks to propose measures for implementation; learn best practices from others; and cooperatively develop new ideas.

Major Achievements

Networking with Other Universities

The Referat für Technik- und Wissenschaftsethik (RTWE) supports all Universities of Applied Science in Baden-Württemberg in the field of Ethics and Sustainable Development. Once a semester the Ethics Officers and Sustainability Officers meet and exchange current developments at theirs universities, inform about latest publications and seminars and exchange perspectives on political developments. Discussions about new funding programs are of particular importance. In addition to those services, the RTWE financially contributes to lectures, seminars and workshops that deal with ethics and sustainability issues at the universities. Finally, the RTWE organizes additional seminars, summer schools and online seminars that enrich our own program. This year’s summer school, for instance, deals with sustainability in the textile and clothing industry.

Students from the faculty textile and design are most interested in participating at that summer school.

Networking with the Government

Early this year, the Secretary of Culture and Education Theresia Bauer visited Reutlingen University. Above all, she intended to get to know the university, learn more about current research and teaching projects, and discuss the overall vision for the future. Mrs. Bauer was impressed by the range of innovative activities and the focus on responsible diversity management. President Brumme pointed out the needs in personal and financial resources.

Networking with the Churches

The ekhg Reutlingen is the campus’s Protestant and Catholic Student Ministry. In addition to offering support and guidance in religious and spiritual matters, the ekhg program includes a range of seminars on acquiring social skills and how to cope with the demands of studying for a degree. One of the most important project is “Do It!”. Students learn during an internship in a social facility exactly the skills that are more and more requested by companies: social competence, communication skills and responsibility. After the internship students write a report on their experiences. The participation at
this project allows students to gain credits for the Ethikum-certificate.

Networking with the Media
On May 12th 2014, President Brumme met with Valdo Lehari, the issuer of the regional newspaper in Reutlingen (Reutlinger Generalanzeiger). It was an interview about values and changing values in education and the media. The interview is published in the newspaper and reflects on what are values and how can they be mediated.

Networking with Schools
Regional schools contacted Reutlingen University and asked for a partnership in education. As many schools undertake a fundamental reform towards all-day-care the need for additional offers rises. Students are asked to help pupils in phases of individual learning in mathematic or German. In such cooperation with school girls and boys students learn to take responsibility and coach younger children on their educational path and career. The team for ethics and sustainable development coordinates the advertisement of the offers and assists students in receiving social credits at their faculties.

The offering of Girls’ Days at which pupils have the possibility to get an insight on MINT subjects (Mathematics, Informatics, Natural Sciences, and Engineering) is described in part three of this report.

Networking with the Public
The Studium Generale is the most important public activity Reutlingen University offers. It is a series of approximately five lectures per semester that are bound together by an overall topic. This year the general topic is “Freedom, Equality and Diversity”. Studium Generale aims at fostering the general education of all members of the university and interested people in the region. It is organized by all three universities in Reutlingen: the Protestant and Catholic Student Ministry and the Reutlingen School of Theology, the University of Education and Reutlingen University.

Future Objectives
We are currently re-structuring the lectures series Studium Generale. The University of Education closes the local branch in Reutlingen. Besides, internal personnel shifts demand a new mode of
organization. The team for ethics and sustainable development will take over the coordination of the Studium Generale. We will invite student initiatives to organize and advertise their speaker’s series under the umbrella of the Studium Generale. In this regard, we open the decision of what should be learned at Reutlingen University to student’s groups that get engaged.

Finally, Reutlingen University will host the meeting of all Sustainability Officers in Baden-Württemberg in 2015.