

UN PRINCIPLES FOR RESPONSIBLE MANAGEMENT EDUCATION

SHARING INFORMATION ON PROGRESS (SIP)

Report 2021-2022



LETTER FROM THE DEAN

Driving sustainability through excellence in management – that’s how TUM School of Management contributes to achieving the United Nations’ Sustainable Development Goals (UN SDGs).

Unlike other management schools, TUM School of Management is part of a world-class technical university. Since our founding in 2002, we have been able to combine first-class management education with technological. We’re one of the leading management schools with a unique interface to technology, engineering, and sciences. Our technological and entrepreneurial ecosystem allows us to educate responsible talents, to contribute to solutions for grand societal transformations by pursuing interdisciplinary research that stipulates innovations for businesses and societies across Germany, Europe, and the world.

We bring together cutting-edge management knowledge and world-renowned technology research. In doing so, we recognize our responsibility to educate tomorrow’s leaders, and this is why we as an institution are striving toward a threefold commitment: to sustainability, digitalization and entrepreneurship.

The mission of the TUM School of Management is to guide its students to become responsible leaders. We want our students to be aware of social, ethical and environmental issues and dynamics when making business decisions. Moreover, we’re promoting sustainable business models inside and outside the classroom: through our close ties with the business community – from global leaders to start-ups – we’re championing social enterprises as the businesses of the future.

This report showcases our commitment to society, responsible management education and outreach. We’ve made considerable progress in developing an overarching sustainability strategy, and we’re bound and determined to keep on incorporating the core values of the UN-PRME initiative.

We’re proud to share our progress!



Prof. Dr. Gunther Friedl
Dean of TUM School of Management



CONTENTS

FACTS & FIGURES	6
Technical University of Munich: The Entrepreneurial University	6
Excellence, Rankings, Accreditations	8
Campuses and Study Programs	10
KEY PRME HIGHLIGHTS	12
PRINCIPLE 1: PURPOSE	14
TUM School of Management's Strategy	14
Mission	14
Vision	14
Letter from the Sustainability Manager	17
Focal SDGs	18
Sustainability Office	19
PRINCIPLE 2: VALUES	20
Code of Conduct	22
Ethical Standards in Depth	23
PRINCIPLE 3: METHOD	25
New Bachelor and Master in Sustainable Management and Technology	25
Impact for Future	25
Sustainability Assessment of Study Programs	26
Highlight of Courses Most Committed to Focal SDGs	27
Assurance of Learning	27
PRINCIPLE 4: RESEARCH	28
Sustainability Assessment of Publications	29
Highlight of Recently Published Research on Sustainability	30
Third-party Funding: EQUA Endowed Chair for Family Business	31
PRINCIPLE 5: PARTNERSHIPS	32
Activities with Corporate Partners	33
Collaborative Initiatives for Creating Positive Impact	34
Partnering with Industry to Offer Sustainability-centered Learning	37
Partnerships as a Space for Students' Projects on Sustainability Issues	39
PRINCIPLE 6: DIALOGUE	40
Emphasis on Sustainability in our Code of Conduct	41
Engaging Alumni to Support Solutions to Societal Problems	41
Voicing our Leadership Thought on Circular Economy	42
Creating Dialogue Space at the intersection of Sustainability and Entrepreneurship	44
Impactful Event – TUM Sustainability Day	46
Students-led Organizations	50
Diversity and Gender Equality	54
Assessment of Past Commitments	56
Future Commitments 2023-2024	57

FACTS & FIGURES

TECHNICAL UNIVERSITY OF MUNICH: THE ENTREPRENEURIAL UNIVERSITY

Since its foundation in 2002, TUM School of Management aims to shape a sustainable future through responsible research, trustworthy innovations, and farsighted concepts for teaching and continuing education. Our School focuses on bridging the gap between several disciplines, like management, engineering, and the natural and life sciences. By focusing on future trends and real-world solutions, TUM School of Management advances innovation-based businesses that benefit society at large. As reflected in our School's mission, we emphasize raising the level of awareness regarding responsible management, ethics, and sustainability among our students and faculty.

Our highly international student body, as well as the cooperation with renowned universities and management schools worldwide, guarantee a global perspective, while industry know-how is brought into our programs through strong collaboration with our corporate partners. Together, we create a dynamic, inspirational, and international community.

TUM School of Management is in the top one percent of business schools worldwide to hold Triple Crown accreditation by the Association to Advance Collegiate Schools of Business (AACSB), the Association of MBAs (AMBA), the European Foundation for Management Development (EQUIS). Triple Crown accreditation is internationally recognized as a seal of quality for business schools.

The same is true for qualified non-academic staff. Here, the salary is highly regulated by the government and most of the contracts are time-restricted with only some possibilities to extend contracts. Especially in highly competitive labor markets such as Heilbronn and Munich, this can hamper gaining and retaining non-academic staff.

EXCELLENCE, RANKINGS, ACCREDITATIONS

Leader in German rankings and top position in international business schools

In 2021, TUM School of Management achieved positions in the TOP-50 group worldwide in the important FT and QS rankings.

Since 2017, the School is a member of the prestigious Triple Crown certification held by only 1% of business schools worldwide



In 2022, the TUM School of Management is recognized for outstanding teaching and research:

1 BEST BUSINESS SCHOOL

Germany
QS World University Subject Ranking

3 TOP 3 BUSINESS & ECONOMICS

Germany
THE University Subject Ranking

2 TOP 2 MASTER IN MANAGEMENT

Germany
QS Business Masters Ranking

6 TOP 6 MASTER IN MANAGEMENT

Germany
FT Masters in Management Ranking

1 BEST IN MANAGEMENT

Germany
Shanghai Subject Ranking

1 BEST BUSINESS RESEARCH

Germany
Wirtschaftswoche Ranking



“At TUM School of Management, we have already been researching and teaching on this topic for many semesters, and we are also bringing our knowledge and expertise to the entire TUM through the TUM Sustainability Strategy.”

Prof. Dr. Alwine Mohnen
Head of the Faculty Graduate Center

CAMPUSES AND STUDY PROGRAMS

Studying at the TUM School of Management provides students with a solid knowledge of contemporary management techniques and enables them to become responsible managers and leaders at the interface of management and technology. In 2021-2022 the Bachelor's and Master's programs in Sustainable Management and Technology were launched at TUM Campus Straubing.

Undergraduate Programs

- Bachelor's degree in Management & Technology
- Bachelor's degree in Sustainable Management & Technology

Graduate Programs & Professional Master's Programs

- Master's degree in Management
- Master's degree in Management & Technology
- Master's degree in Finance & Information Management
- Master's degree in Consumer Science
- Master's degree in Sustainable Management & Technology
- Master's degree in Management & Innovation

Executing MBA

- Executive MBA
- Executive MBA in Business & IT
- Executive MBA in Innovation & Business Creation



KEY PRME HIGHLIGHTS

2021



Launch of the [new degree program Sustainable Management and Technology](#) at Campus Straubing, with a focus on redesigning production processes for companies transitioning to climate-neutral and sustainable management.

The [TUM Sustainability Award 2021](#) was assigned to Prof. Dr. Johannes Fottner and Prof. Dr. Magnus Fröhling for founding the CirculaTUM network.

Prof. Dr. Melanie Richard was appointed Associate Professor at the EQUA endowed Chair for Family Business Culture and Ownership, which among other topics, focuses on Sustainability and Corporate Social Responsibility.

2022



During the first TUM Sustainability Day in October 2022, the TUM Sustainable Futures Strategy 2030 has been presented publicly for the first time. This strategy demonstrates our bold commitment to sustainable change. It was developed together with TUM students and employees in a participatory process, in which TUM School of Management played a forerunning role. It charts our common path to a sustainable future - with specific and tangible measures.



Launch of the IMPACT FOR FUTURE consortium led by TUM School of Management in collaboration with other local partners. The program offers education and support for students, educators, and founders aiming at having a positive impact on society.

PRINCIPLE 1: PURPOSE

TUM SCHOOL OF MANAGEMENT'S STRATEGY

Sustainability is a central pillar of the TUM School of Management's Strategy 2026. Three major social transformations were identified as most relevant and connected to our School's future activities: United Nations Sustainable Development Goals (SDGs), Globalization, and Digitalization. These three aspects are embedded in the School's strategic objectives concerning research and faculty, students and programs, internationalization, corporate and start-up connections, and the enhancement of TUM School of Management as an impact brand.

MISSION

Grounded in our technological and entrepreneurial ecosystem, we educate responsible talents and pursue relevant research to advance innovation-based businesses and societies in Germany, Europe and the world.

VISION

Being one of the leading management schools at the interface with technology, engineering, and the sciences, contributing to solutions for the grand societal transformations.



Ever since our founding some 20 years ago, our mission has been to bridge the gap between management and technology.

Prof. Dr. Gunther Friedl
Dean of TUM School of Management



Thanks to our faculty and our programs, our students make a difference - equipped with a profound management education, they excel at any business with their interfacing skills and a deep understanding of entrepreneurship, ethics, responsibility and sustainability.

Barbara Tasch
Managing Director of TUM School of Management





“ PRME is not a sprint,
it is an Ironman

LETTER FROM THE SUSTAINABILITY MANAGER

Our journey towards integrating sustainability into research and teaching has been tremendous over the years. At the TUM School of Management, sustainability and social responsibility have evolved from a separate function to a holistic and fundamental driver of our responsible management. In my role as Sustainability Manager of the TUM School of Management, I am thrilled to be part of this transformational journey and to bring the Principles for Responsible Management Education (PRME) to life at our school.

This report covers a critical time of great change. A global post-pandemic world and sudden turmoil in global energy markets. Such disruptions have prompted significant reflection on the way forward for the world, and the importance of sustainability and social responsibility has crystallised more than ever, especially in the business world.

At the TUM School of Management, we embrace our role as educators and researchers, equipping future business leaders with relevant and unique skills needed to address global societal challenges. As such, we encourage our students to be critical, focused and pragmatic. To this end, we have decided to focus on five SDGs, specifically 5, 7, 11, 12 and 13. This crafting process helps us to prioritise and excel as a leading business school in Europe and around the world. The PRME provides an important foundation for our approach to educating the next generation of action-oriented business leaders, and an inspiration for expanding the focus on the five SDGs at the university level.

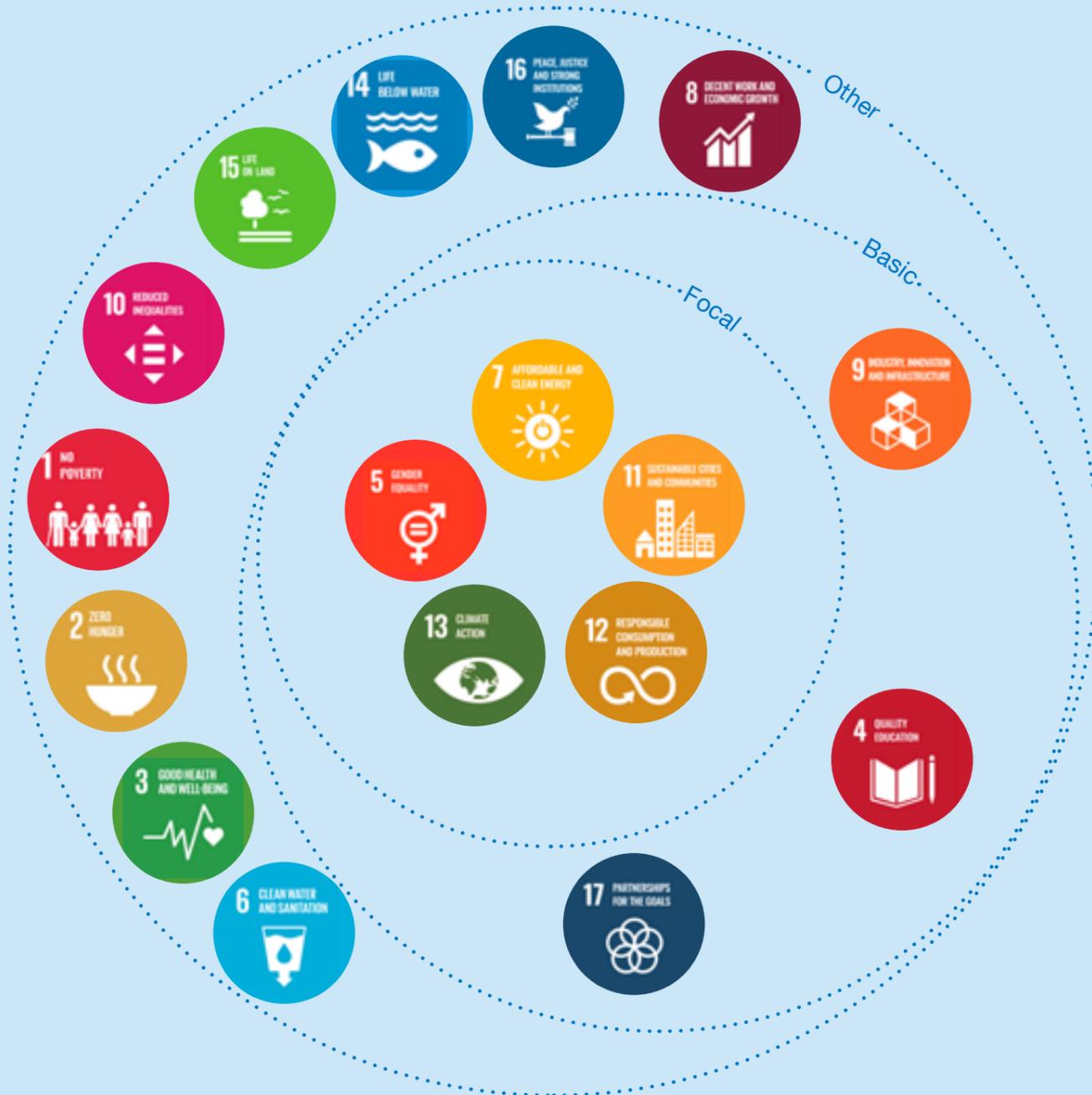
In particular, I would like to highlight the importance of SDG 7 'Affordable and clean energy for all' as one of our focus SDGs. Renewable energy technology and its management, both in established companies and in impact-driven start-ups, is an important and timely topic. We offer our students the opportunity to learn, develop and address complex issues around sustainable energy in a newly established specialisation within our Master in Management and Technology, which is offered at the main TUM campus in Munich. This is on the same wavelength as the launch of a new degree programme in Sustainable Management and Technology at the TUM campus in Straubing.

Our progress towards PRME principles has been significant, but we recognise that this is only the beginning. We look forward to taking responsibility and maintaining our focus. For us, PRME is not a sprint, it is an Ironman! It requires consistency in training and perseverance in competition. It requires commitment and an iron will in challenging times. We remain committed to responsible management education for a fairer and more sustainable world.

Prof. Dr. Frank-Martin Belz
Sustainability Manager at the TUM School of Management

FOCAL SDGs

The TUM School of Management focuses on five SDGs, including SDGs 5, 7, 11, 12, and 13, and their basic principles. While the other SDGs are important, they are not at the core of the school's mission and vision. The prioritization of the SDGs was part of a strategic process to best allocate resources and increase impact.



SUSTAINABILITY OFFICE

In 2020, the Sustainability Office was established to bring together all existing initiatives and ideas under an overarching strategic framework and support their implementation of new projects through cooperation. Moreover, our Sustainability Taskforce is responsible to publish the PRME to underpin TUM's sustainability strategy at the school level.

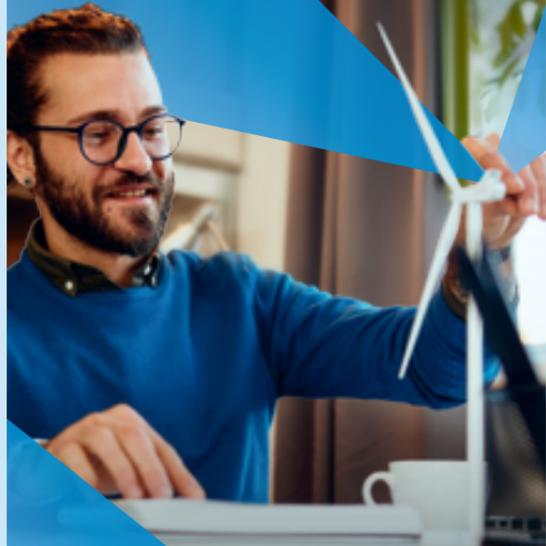
In 2021 the team collected systematic quantitative data related to PRME Principles 3 and 4, with the aim of recording our core sustainability-related activities and defining core strategies for enhancing the sustainable impact of our institution.

The Sustainability Office plays a key role in measuring the current sustainability orientation of the School. It does this by means of an in-depth analysis of our teaching and research activities. It also monitors the dialogue with both internal and external stakeholders. Furthermore, it analyses and shapes our sustainability strategy, whose aim is to tackle the grand societal challenges, and transmits our core values and purpose to our students – the responsible leaders of tomorrow.

PRINCIPLE 2: VALUES

At TUM School of Management, we pursue our mission and follow our vision of becoming one of Europe’s leading management schools at the interface to engineering and science, contributing to solutions for the grand societal challenges following specific values, which are embedded in our organization at all levels:

RESPONSIBILITY & INTEGRITY



We conduct research in line with the highest scientific and ethical standards and are committed to progress and innovation for improving people’s lives. We teach general management skills with an emphasis on technology and in doing so, advocate the United Nations’ sustainability values of freedom, equality, solidarity, tolerance, respect for nature and shared responsibility.

PASSION FOR EXCELLENCE

We strive for excellence in our areas of research and publish our findings in order to create impact. We provide our students at all levels with a sound scientific education, not only to facilitate their starts in careers in business or in science, but also to improve their critical thinking so that they act responsibly in society.



ENTREPRENEURIAL SPIRIT

We research entrepreneurship and innovation and integrate the results into the education of our students at all levels in order to enable our students to think and act entrepreneurially. We encourage our TUM colleagues, students and doctoral candidates to found growth-oriented start-ups and facilitate their successful development.



COLLEGIALITY & “GEMÜTLICHKEIT”

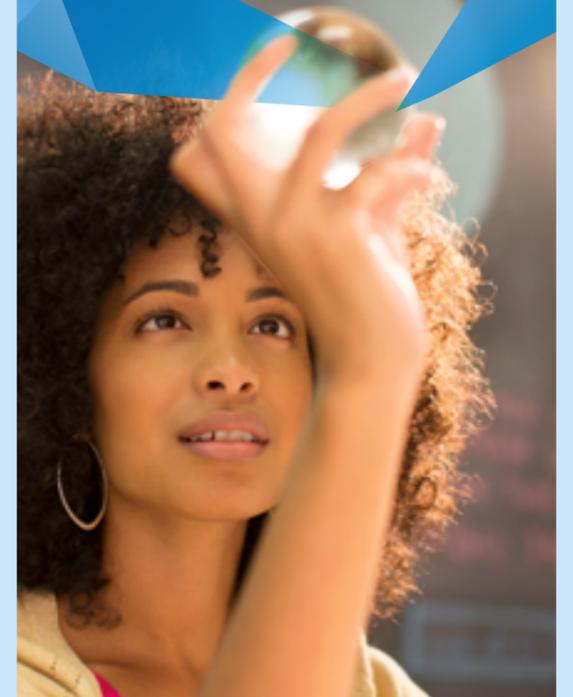
We foster a climate of mutual interaction, help and collaboration among students, faculty and administrative staff. Gemütlichkeit* is an attribute that we would particularly like to focus on.



*Gemütlichkeit (Ger.): "A feeling of warmth, friendliness, peace of mind and acceptance."

CURIOSITY & OPENNESS

We encourage research beyond disciplinary, institutional and national borders in order to open up new perspectives and generate novel research findings and ways to approach management practices. We develop talented individuals irrespective of gender, nationality, religion or belief, skin color, ability, age, or sexual orientation and are determined to learn from our students’ cultures, experiences and opinions.





ETHICAL STANDARDS IN DEPTH

Honesty

Being truthful and sincere in communication and action. At TUM this value of honesty should be reflected in your conduct and your compliance with TUM's legislation and regulations.

Trust

Believe that people are good and honest and mean you no harm. Trust that you can rely on information given to you. Reflect this value in your own behavior by being honest and respectful. Give people a reason to trust you.

Diversity

Respecting everyone regardless of their ethnicity, gender, physical abilities, cultural background, religion or belief, socio-economic status, sexual orientation, life-style, age, interests and experiences. At TUM we see diversity as an opportunity and an enrichment of our community.

Sustainability

Maintaining environmental sources at a level that does not exhaust natural resources or produce unnecessary waste.

Responsibility

Understanding our educational mission as a responsibility towards society. Scientific advancement strives for the improvement of human life and coexistence.

Fairness

Making decisions impartially and objectively. Conduct is free from competing self-interest, prejudice, nepotism and favoritism. Be open when meeting people in a fair and unprejudiced way.

Equality

Recognize that each individual is unique and has unique preconditions, abilities or disabilities. Everyone deserves an equal chance regardless of where they have come from. Appreciate that there are those who require particular care and attention in order to establish a general state of equality of opportunity.

Science

Applying a scientific approach, evaluating our own unconscious biases, challenging dogmas, and doubting that which has not been proven.

CODE OF CONDUCT

In accordance with the school's mission, vision, and strategy, TUM School of Management commits itself to the highest ethical standards of personal and collective behavior: honesty, responsibility, trust, fairness, diversity, equity, sustainability, and science.

These standards guide and challenge the community in its principles of thinking and acting in accordance with TUM's strategic core values, which act as the foundation of our commitment to diversity and equity. Positive and empathetic interaction with one another builds bridges for trust, respect, and understanding across cultures.



At our School we believe that entrepreneurs and decision-makers should alike be able to make informed and ethical decisions to balance their economic goals with social and environmental ones. Thus, we pave the way for a society where sustainable development is a real possibility.

Sofia Abid
Doctoral Candidate at the Entrepreneurship
Research Institute of TUM School of Management

PRINCIPLE 3: METHOD

As the world faces growing societal, economic, and environmental issues, education and business schools play a key role in shaping the behaviors of future leaders of our institutions and businesses. In line with our mission, we offer our students interdisciplinary study programs to better prepare them to achieve the SDGs through digital transformation and advanced managerial skills. To achieve such a goal, TUM School of Management offers several sustainability-related programs at the Bachelor's and Master's levels.

NEW BACHELOR AND MASTER IN SUSTAINABLE MANAGEMENT AND TECHNOLOGY

Of particular relevance is the new Bachelor and Master in Sustainable Management and Technology launched at Campus Straubing in 2021. A climate-neutral way of conducting business requires a structural transformation of the production process. Through this new degree program, TUM School of Management answers this call by training experts in topics like circular economy, renewable energies, biotechnologies, and material sciences. With its multi-disciplinary faculty, counting around 20 professors, Campus Straubing plays a key role in the transition towards a climate-neutral economy.

IMPACT FOR FUTURE

Thanks to the Bavarian Ministry of Science, TUM School of Management launches the Impact for Future project together with the universities of Munich and Landshut, the Technical University of Munich and the University of the Federal Armed Forces, and Munich Business School as associated partners. The consortium, starting in the winter of 2022-2023, aims at providing a holistic education program for students, especially from technical subjects. In collaboration with the Social Entrepreneurship Academy, the project offers individualized, context-related and interdisciplinary training, from curricular, application-oriented modules tailored to departments, to train-the-trainer, to a cross-university certificate and master's degree program. All the partners committed to Impact for Future aim at creating a sustainable and social future together.

SUSTAINABILITY ASSESSMENT OF STUDY PROGRAMS

As we committed to do in the last PRME report, we quantitatively assessed the extent to which TUM School of Management addresses sustainability in its study programs. To conduct the analysis, we chose the Master in Management and Technology, since it is the flagship program of our School and can therefore be considered an optimal starting point for the analysis. Of the 263 courses belonging to the track, we coded a representative sample of 80 courses (30%) among all 7 specializations offered in the program. We used an ABC coding system consisting of three scores assigned to indicate the sustainability profile for each course coded (Table 1).

Score	Meaning
A	Sustainability is targeted at the core (sustainability is at the core of the course, each evidence is directly linked to sustainability-related topics)
B	Sustainability targeted but not at the core (sustainability is not at the core of the course but some connections to sustainable-related topics are made throughout the course, some evidences are directly linked to sustainability-related topics)
C	Sustainability not targeted (no content in the course is linked to sustainability-related topics)

Table 1: Scale for the second level of coding

In a nutshell, 59% of the courses of the Master in Management and Technology were assessed as either at the core (A) or somehow targeted to sustainability (B), while 41% of courses did not target SDGs.

Sustainability Assessment by Course

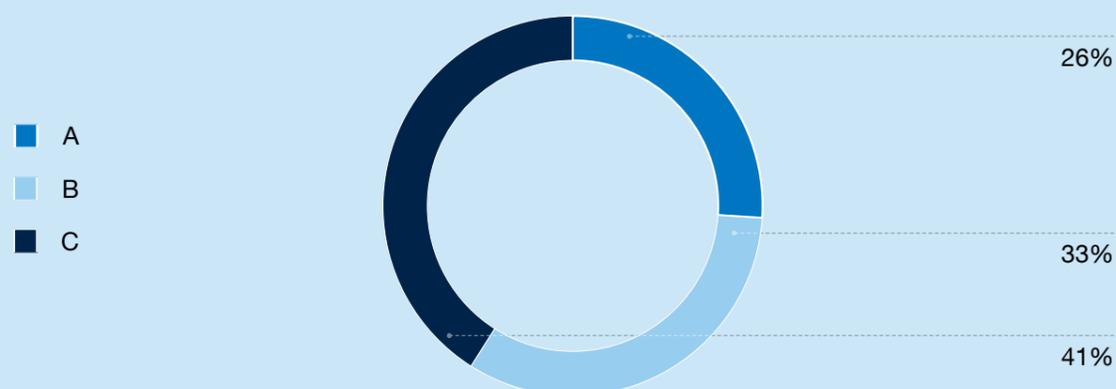


Figure 1: Sustainability Assessment by Course

Furthermore, based on our results it emerged that the most mentioned SDG goals are SDG 7 “Affordable and clean energy” and SDG 12 “Responsible Consumption and Production”. In particular, we found a higher concentration of curricula on targets 7.1 “By 2030, ensure universal access to affordable, reliable and modern energy services”; target 12.2 “By 2030, achieve the sustainable management and efficient use of natural resources”; and target 12.8 “By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature”. The predominance of SDG 7 and 12 reflects the School’s focus on energy and sustainability which also contributed to the launch of the Bachelor’s and Master’s programs in Sustainable Management and Technology. These results indicate that our School fosters the alignment of the education provided to our students with its core goals.

HIGHLIGHT OF COURSES MOST COMMITTED TO FOCAL SDGs

Sustainable Entrepreneurship- Getting Started

The module is taught at the Master’s level and invites students to make a difference in tackling societal challenges. The seminar introduces theoretical and practical examples of sustainable entrepreneurship and supports the student to develop their business idea.



ASSURANCE OF LEARNING

Through the Assurance of Learning TUM School of Management tracks whether and to what extent the Learning Goals and Objectives of the School are anchored to our mission, and consequently, if the latter has been accomplished. The results are evaluated and analyzed at regular intervals in order to improve the curriculum and develop instructional methods. We evaluate and analyze goals related to ethics, responsibility, and sustainability of our teaching activities. Among other practices implemented in the last two years, the Sustainability Office elaborated and proposed a new syllabus template that includes a sustainability ranking. The new template will facilitate students in understanding which seminars are highly focused on sustainability.

“Having participated in the master’s seminar Sustainable Entrepreneurship - Getting started, not only allowed me to work on a high-impact sustainability entrepreneurship project, with a hands-on mentality, but also offered me valuable insights into entrepreneurial tools and sustainability practices. Considering its impact on my desire to drive sustainable and impactful developments, makes me consider this course as extremely valuable for my personal and professional path

Oliver Baeyens
Master’s student at TUM School of Management



PRINCIPLE 4: RESEARCH

According to the “WirtschaftsWoche Ranking”, TUM School of Management is the strongest research university among German universities. Research at TUM School of Management is characterized by an interdisciplinary approach, which invites our researchers to approach sustainability through a well-rounded perspective. More specifically, our research focuses on future trends and real-world solutions that advance innovation-based businesses and enhance society at large. Students benefit from the use of cutting-edge research in our teaching programs.

SUSTAINABILITY ASSESSMENT OF PUBLICATIONS

As part of Sharing Information on Progress for PRME 2019-2020, we committed to evaluating the level of sustainability of the publications at the TUM School of Management. To reach our goal, we collaborate with Scilytics.de. The Sustainability Office provided a list of keywords for each SDG in line with those published by other business schools and elaborated the criteria for ABC coding- in line with the evaluation of teaching modules. We assigned code A if sustainability is highly addressed, (> 51% of SDGs touched; at least 9 out of 17 SDGs); code B if sustainability is addressed, (if 1-50% of SDGs touched, between 1 to 8 out of 17 SDGs); and eventually code C if sustainability is not addressed and no SDG is touched (0%, 0 out of 17 SDGs). Thus, the Scilytics.de software was programmed accordingly. Being the software a working-in-progress project, it was only able to retrieve 56 papers to code for the ABC classification, over a total of 568 publications from TUM School of Management members with a focus on sustainability and ethics between 2021 and 2022. As a result of our analysis, we assessed that the majority of publications in our sample touched 1 to 8 SDGs (B).

Distribution of SDG Level in TUM MGT publications from 2021 - 2022

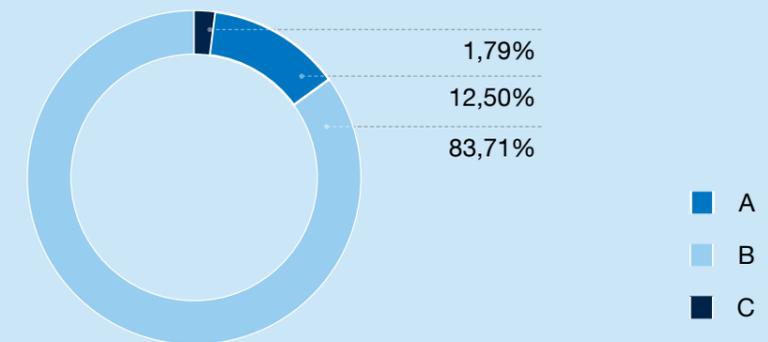


Figure 2. Distribution SDG level throughout TUM School of Management publications

We then looked deeper into the focal SDGs present in our publications (Figure 3). We found out that the majority of our sample touches from 1 to 2 focal SDGs.

Focal SDG distribution

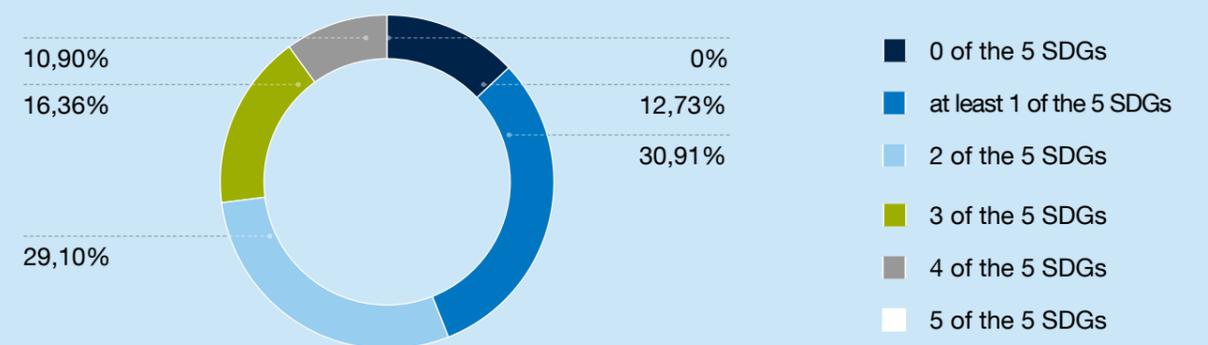


Figure 3. Distribution focal SDG level throughout TUM School of Management publications

In accordance with the results from the analysis of teaching modules, most papers published by TUM School of Management researchers are focused on SDG 7 and 12 (respectively 37,7% and 30,1% of the sample).

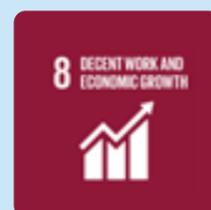


HIGHLIGHT OF RECENTLY PUBLISHED RESEARCH ON SUSTAINABILITY

Among research published in the biennium 2021-2022, TUM Professors Siddharta Vedula and Claudia Doblinger, together with Desirée Pacheco, Jeffrey G. York, Sophie Bacq, Michael V. Russo, and Thomas J. Dean published the paper “Entrepreneurship for the Public Good: A Review, Critique, and Path Forwards for Social and Environmental Entrepreneurship Research” on the Academy of Management Annals in 2022. Entrepreneurship research claims that an entrepreneurial lens can help solve complex societal problems. Specifically, two emerging literature streams have sought to examine how and when such solutions may emerge: literature on social entrepreneurship (SE) and environmental entrepreneurship (EE).

The paper (a) identifies a pattern of convergent evolution, whereby SE and EE share some common elements today while originating in distinct scholarly communities with different epistemological roots; (b) offers a conceptual framework that identifies specific areas for collaboration and learning between scholars focusing on SE and EE; and (c) proposes how these streams can be integrated to elevate the impact of the field of entrepreneurship. An integration can enable entrepreneurship research to fulfill its promise of understanding how and when entrepreneurial action contributes to the public good.

The authors conclude the paper by saying that not “giving pride of place to social, environmental, and economic outcomes” would be a missed opportunity and “more importantly, it would break the essential promise of entrepreneurship research: to position human and ecological betterment at its very core” (Vedula et al., 2022, p. 415).



THIRD-PARTY FUNDING: EQUA ENDOWED CHAIR FOR FAMILY BUSINESS

Prof. Melanie Richards was appointed the Chair for family businesses culture and ownership thanks to an endowment by EQUA-Stiftung. The EQUA Foundation provides scientific and practical knowledge about and for entrepreneurial families and family businesses. The Chair investigates entrepreneurial and social activities of business families and analyzes family philanthropy. The latter regards influential business families often engaging in various social and environmental causes. Furthermore, the Chair conducts research on family business legitimacy and reputation, especially in light of CSR reporting regulations and emerging sustainability opportunities.



Prof. Dr. Melanie Richards
Associate Professor at TUM School of Management

PRINCIPLE 5: PARTNERSHIPS

TUM School of Management nurtures strong and long-lasting relationships with partners spanning the spheres of corporations, new entrepreneurial ventures, and academia, at national and international levels. These relationships are the backbone of our responsible management education which we emphasize in our focal SGDs. With our partners, we bring real-world economic, social, and environmental issues into the classroom, creating thought-provoking learnings and fruitful avenues to share knowledge about sustainability efforts.

ACTIVITIES WITH CORPORATE PARTNERS



Students and Corporate Leaders Exchange on Pressing Business and Sustainability Challenges Focus on SDG 13 Climate Action and SDG 17 Partnerships for the Goals

Thanks to our ties with corporate leaders, we host several lectures and masterclasses where our students meet managers to discuss sustainability-related questions and how corporations are tackling sustainable development issues. Such interactions offer our students the ability to critically discuss the world's most pressing challenges with senior leaders and co-create ideas at the frontier of knowledge.



In 2022, the CEO of Lufthansa, Carsten Spohr facilitated an insightful masterclass on the global challenges of the airline industry and the path toward sustainability, and a lecture where students asked questions relating to sustainability and crisis management and Lufthansa's future agenda. Oliver Zipse, the CEO of BMW, also engaged with our students in a public lecture on the future of the automobility industry and the sustainable development challenges that comes with it related to our focal SDG 13 Climate Action.



COLLABORATIVE INITIATIVES FOR CREATING POSITIVE IMPACT



Clean Drinking Water in the Global South: A Crowdfunding Campaign Focus on SDG 7 Affordable and Clean Energy, SDG 6 Sustainable Management of Water and SDG 17 Partnerships for the Goals

In 2022, the TUM SEED Center and Makerere University launched a crowdfunding campaign tackling SDG 6 “ensure availability and sustainable management of water and sanitation for all” to bring clean drinking water to the village of Kyampisi in Uganda. The two institutions joined forces to help more than 1000 villagers who hardly have any opportunity for clean drinking water and fetch dirty water from a swamp shared with animals. The collected funds are allocated to the costs of drilling an underground well in the village and installing a pumping system to get clean drinking water. To pump water from the drilled well, the village will rely on solar power installed through the living lab project of the TUM SEED Center.



“We are most grateful for this crowdfunding campaign that is not only an opportunity for safer water in the whole community but also will enable girls get to school in good time and will enable more productive time for women as they will have shorter distances in search of water.”

Prof. Dorothy Okello
Dean of the School of Engineering,
at Makerere University, Uganda



This crowdfunding campaign is the first of its kind at the TUM School of Management and portrays our commitment to leverage our partnerships to contribute to the realization of sustainable development goals. The campaign, which was led by TUM School of Management students, is aimed at creating a tangible impact on the ground to complement the fruitful research-oriented collaboration between the TUM SEED Center and the Makerere University in Uganda.



Decarbonization at Family Businesses: A University and Non-profit Collaboration. Focus on SDG 12 Responsible Consumption and Production.

In collaboration with the Non-profit organization, Dr. Hans Riegel-Stiftung and the TUM School of Management via the Chair of Management and Accounting, the Global Center for Family Enterprises led by Prof. Dr. Miriam Bird launched a joint research project in 2021 to investigate decarbonization at German family firms and their approach to greenhouse gas emission reduction. Such collaboration brings local actors to conduct research of international relevance and with tangible implications in Germany given that more than 90% of German firms are family businesses.

PARTNERING WITH INDUSTRY TO OFFER SUSTAINABILITY-CENTERED LEARNING



Sustainable Investing Program. Focus on SDG 12 Responsible Consumption and Production.

The program "Sustainable Investing", led by Prof. Dr. Gunther Friedl, Dean of the TUM School of Management and Professor of Management Accounting, in collaboration with the DVFA Akademie, addresses the characteristics, chances, and risks of sustainable investments. In this scientifically profound program, the TUM School of Management leverages extensive knowledge of industry players and cutting-edge research to offer management practitioners and investors strategic and product-specific aspects as well as regulatory aspects of sustainable investing. Through the combination of traditional investment approaches with environmental, social, and governance (#ESG) insights, investors ranging from global institutions to individuals are taking a sustainable approach to pursue their investment goals.



Collaborate to Educate Responsible Leaders and Generate Sustainability driven Knowledge Focus SDG 4 Quality Education

In collaboration with the Burkina Institute of Technology in Burkina Faso, Dr. Svenja Jarchow and Jörg Königstorfer from the Center of Entrepreneurial and Financial Studies offered online courses in 2021 for students via the e-learning platform Lecturio. This collaboration is nested in a long-term project of support to the Burkina Institute of Technology with the involvement and lead of Susanne Pertl (The Stern Stewart Institute), and the contribution of Bernd Brügge from the TUM Faculty of Informatics.

“ We want to create a new generation of leaders in Burkina Faso. TUM School of Management supports us by offering online courses for our students. This collaboration brings cutting-edge knowledge from TUM School of Management to BIT. We are very grateful for the digital classes, which are very beneficial for our students. An additional big advantage is that the lectures are in English. The teachers from Burkina Faso rarely speak English. Yet the language is extremely important for our students, especially for international internships



Susanne Pertl
Founder and President of Burkina Institute of Technology, Burkina Faso



PARTNERSHIPS AS A SPACE FOR STUDENTS' PROJECTS ON SUSTAINABILITY ISSUES



Digital Carbon Reporting

Focus on SDG 13 Climate Action and SDG 17 Partnerships for the Goals

Under the strategic partnership between SAP and TUM, the Chair of Financial Accounting of TUM School of Management led a project study on digital carbon reporting, a selected team of 5 students conducted research aiming to uncover how sustainability and ESG affect financial and management accounting. The students presented their solutions at SAP in a close and immersive industry-academia exchange. The project study was under the guidance of industry experts including, Dr. Christopher Ernst, Rüdiger Eichin, and Dr. Katharina Wollenberg from SAP, and Prof. Jürgen Ernstberger, Felix Müller from TUM School of Management.



“Our project aimed to develop a digital solution for carbon reporting and provide recommendations on ‘How to treat Scope 3 CO2 emissions of capital goods from an accounting perspective, as well as identify factors for sustainable investment decisions?’

Yash Khivasara
Master's student at TUM School of Management



Renewable Energy Sources and Energy Systems

Focus on SDG 7 Affordable and Clean Energy

In collaboration with the Fraunhofer Institute, the Chair of Economics of Energy Markets investigated the timely and relevant questions of the energy transition to renewable energy sources via different project studies. Under the guidance of Prof. Dr. Sebastian Schwenen (TUM) and Prof. Dr. Jens Strüker (Fraunhofer IT), students from the TUM School of Management worked on aspects of energy systems transition, such as consumers the flexibility for the temporal and spatial availability of renewable energy sources and the trade-offs of CO2 reduction and electricity cost reduction in energy-intensive industries. Such project studies are an important milestone in students' learning journey as it allows them to embark on the journey of contributing to achieving our energy and climate policy goals in Germany and Europe.

PRINCIPLE 6: DIALOGUE

The TUM School of Management strives to be a thriving space for dialogue on global societal issues. We bring together students, business leaders, school alumni, and other stakeholders to raise awareness and address important sustainability issues. We foster dialogue across departments within the school, in student-led organizations.

EMPHASIS ON SUSTAINABILITY IN OUR CODE OF CONDUCT



Harnessing the Power of Collective Action

Focus on SDG 13 Climate Action

With the aim to foster dialogue across departments and disciplines, in 2021 the TUM School of Management introduced a new Code of Conduct emphasizing sustainability as one of its pillars. By communicating the new code of conduct to all departments within the school, we strive to raise awareness of sustainability issues for our academic and non-academic staff. All members of the TUM School of Management are individually accountable for their own actions and, as a community, we are collectively responsible for sustaining the school's ethical standards and acting in compliance with all principles and commitments of the Code of Conduct.

The sustainability dimension in our code of conduct is in accordance with the school's mission, vision, strategy, and commitment to the highest ethical standards of personal and collective behavior. For instance, we emphasize the importance of sustainable behavior such as using consumable resources (electricity, water, paper, etc.) responsibly and considering sustainability in all aspects of university life.

ENGAGING ALUMNI TO SUPPORT SOLUTIONS TO SOCIETAL PROBLEMS



Social Impact Award for TUM School of Management students, graduates, and alumni

Focus on SDG 17 Partnerships for the Goals

Every year, the TUM Management Alumni e.V. grants the Social Impact Award to ideas and innovations with social impact. Students, graduates, and alumni of TUM School of Management can submit projects or a thesis that address a social issue or are intended to have a positive impact on society. Criteria include social impact, entrepreneurship, creativity, and feasibility. To demonstrate the social impact of their proposal, they should describe its value for their target group and society in general. The winning team receives a cash award of EUR 2,000, sponsored by the school's alumni organization. To ensure maximal visibility, the award ceremony takes place during the TUM Entrepreneurship Day.

The winning project in 2021 on developing a market entry strategy for establishing the circus Learning Management Software in Africa, Asia, and Europe. TUM School of Management students Veronika Lämmlein, Rwitik Mukherjee, Aneesh Salelkar, Hunain Bin Amir, and Oluwatomi Adeefisayo Badmus worked on the strategy to expand circus offering in developing countries to give every individual with an idea the tools to successfully work on it, regardless of their geographic, economic, or academic background.

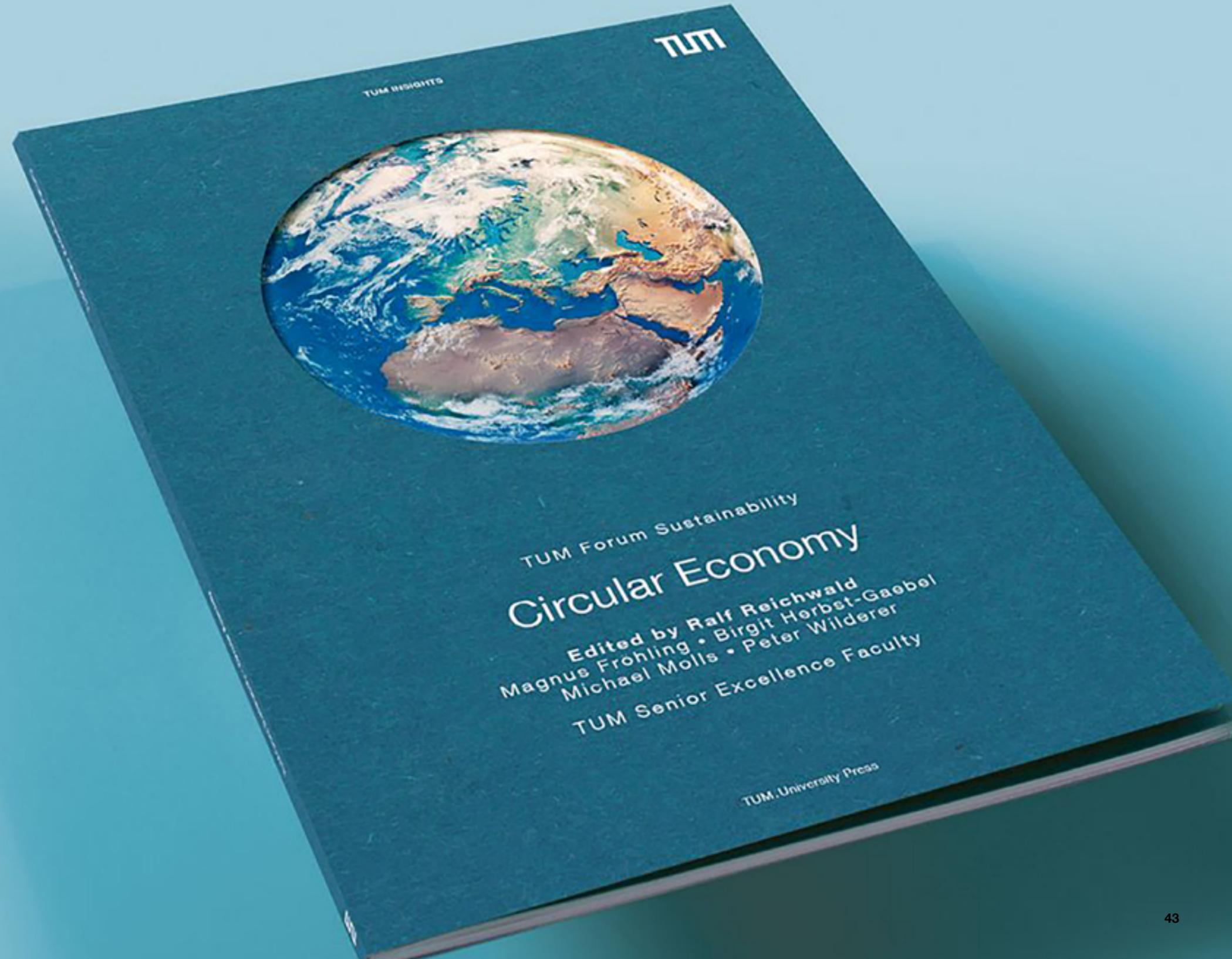


VOICING OUR LEADERSHIP THOUGHT ON CIRCULAR ECONOMY



Newly released book "Circular Economy" co-authored by our faculty Focus on SDG 12 Responsible Consumption and Production

Circular Economy is a lively topic in responsible management and leadership. Our former Dean, Prof. Ralf Reichwald, teamed up with Prof. Magnus Fröhling, Professor of Circular Economy at the TUM School of Management, and co-authored a book on Circular Economy sharing cutting-edge insights on circularity, bioeconomy, and the transformation towards a sustainable economic model. This book saw the collaboration between our school faculty with Science Manager Dr. Birgit Herbst-Gaebel, former professor of water quality and waste technology Prof. Peter Wilderer, and the director of TUM Institute for Advanced Studies Prof. Michael Molls.



CREATING DIALOGUE SPACE AT THE INTERSECTION OF SUSTAINABILITY AND ENTREPRENEURSHIP



The Hands-on International Summer School on Sustainable Entrepreneurship Focus on SDG 7, 12, and 13

Sustainable Entrepreneurship has attracted significant interest from scholars and practitioners alike. Organized on a yearly basis, this International Summer School brings together a diverse pool of students to discuss the theory and practice of sustainable entrepreneurship. The Summer School puts a strong emphasis on SDG 7 Affordable and Clean Energy, 13 Climate Action, 12 Responsible Consumption and Production



In 2022, 19 students from 4 different continents and 13 nationalities discussed pressing sustainable development issues and learned how to create sustainable business models that benefit society and the environment by addressing sustainability issues. The students pitched their own new business venture idea as a group and got feedback from a diverse panel of experts in the field of entrepreneurship and sustainability.



“What happens when great minds come together to explore the limitless possibilities of sustainability? Greatness happens, and the true potential that we hold in transforming the world not just for the present but also for the future, is unlocked.”

Tobias Belle
International Summer School student 2022 from Kenya



IMPACTFUL EVENT – TUM SUSTAINABILITY DAY

TUM Sustainability Day held in 2022 was a first of its kind, a major event to reassert the university's commitment towards the transformation into a more sustainable university in line with TUM Sustainable Futures Strategy 2030. In this university-wide event, schools and faculties independently organized various sustainability-centered activities across all campuses. TUM School of Management has actively contributed to the TUM Sustainability Day on various levels.

Prof. Dr. Alwine Mohnen, Head of the Faculty Graduate Center at TUM School of Management moderated a panel on how universities contribute to a sustainable transformation of the economy and society. Members of this panel included: Prof. Dr. Thomas F. Hofmann (President of the Technical University of Munich), Dr. Thomas Becker (Vice-President of Sustainability, Mobility, BMW Group), Katrin Habenschaden (2nd Mayor of the city of Munich) and Sina-Marie Rupp (Student representative).

Our faculty organized lectures and workshops around societal and environmental issues, such as Prof. Melanie Richards, head of the Professorship of Family Business Culture and Ownership, Climate Action Workshop where participants simulated a United Nations Assembly by taking the role of various stakeholders, Prof. Christoph Ungemach, Professor of Marketing, lecture highlighting that environmental challenges are behavioral challenges. The lecture informed participants from across our school on promising research at the intersection of behavioral change and nudges for pro-environmental; students had the opportunity to develop potential applications of nudges in the context of campus life, and Prof. Magnus Fröhling, Professor of Circular Economy speech on the UN's Sustainable Development Goal 12 "Responsible Consumption and Production" and the role of circularity for reaching it. TUM Sustainability Day was an occasion to inspire our current students by engaging with our alumni. Jakob Bitner, alumna M.Sc. Management and Technology, CEO & Co-Founder of VoltStorage delivered a keynote on the nexus of sustainability and entrepreneurship, stressing how sustainability could drive entrepreneurial endeavors. TUM School of Management has fully engaged in the sustainability dialogue in this event and its engagement towards the 17 UN Sustainable Development Goals (SDGs).



Opening Panel Discussion moderated by Prof. Alwine Mohnen



Panel discussion with President Prof. Thomas F. Hofmann (right)

STUDENTS-LED ORGANIZATIONS

Our students' organizations are an important vehicle of exchange and dialogue on PRME-related questions. We support and empower such organizations with the needed resources to discuss various questions at the intersection of business and sustainability. Here is an overview of key organizations with a sustainability focus led by our students.

School of Management – Student Council

Our school's student council has embraced sustainability issues, first by appointing a "Sustainability Lead!" within its board and second by organizing events and initiatives to discuss and debate on sustainability. For example, in 2022, the student council held a "Sustainability Meeting" gathering students who are interested in sustainability issues at the faculty and in taking matters into their hands to ensure an environmentally friendly university concept. The new Sustainability Lead at the Student Council was Stefan Kovacevic whose primary role is to sensitize students on sustainable development and organize events and talks around these topics.



The Sustainability Task Force of the Student Council TUM School of Management dedicated themselves to promote and implement sustainable measures and enrich the teaching at the TUM School of Management with an environmental focus. It provides a place for students to issue, discuss and realize their ideas and jointly push the TUM School of Management towards a greener future.

Stefan Kovacevic
Master's student at TUM School of Management
Student Council Speaker & Sustainability Lead



Enactus München

Students at TUM School of Management are keen on being change makers. They are actively involved in Enactus, a global entrepreneurship initiative and student organization that aims to improve the living conditions of people worldwide through social entrepreneurship projects. Every project starts as an idea of how to improve the world sustainably and students are encouraged to initiate their own projects. Unlike many mere social donation-based initiatives, students at Enactus create an individual business plan for each project for it to generate independent income on-site to be independent of external donations and sponsors.

In 2021, TUM School of Management started two promising projects. Cropbuddy, co-led by Andreas Schmidt, B.Sc. in Management & Technology, aiming at developing an application that uses weather, soil, and market data to recommend crops that maximize yield and turn a profit for smallholders in the developing world. This project tackles sustainable development goals "SDG 1 No Poverty", "SDG 2 Zero Hunger" and "SDG 8 Decent Work and Economic Growth", and its first working prototype has been implemented in India. The farmer's location is taken into consideration when making recommendations. Machine learning is employed to ensure the best results are provided.



At Enactus, you can perfectly combine volunteering and entrepreneurial thinking: Social and ecological impact are not only generated in the short term but are financed in the long term through a sustainable business model. At Cropbuddy, for example, we aim to increase the income of farmers in India with an app that helps them select the most profitable crops to grow. With this entrepreneurial challenge in mind, I put the theoretical knowledge from my business studies at TUM to practical use, worked with students from other disciplines, gained valuable experience and also made friends along the way.

Andreas Schmidt
B.Sc. Management & Technology, Project Lead and Business Development at CropBuddy.com

180DC Munich

As the world's largest student consultancy for non-profits and social enterprises, 180DC develops tailor-made & innovative solutions with our project partners and thus creates a decisive social impact. The Munich branch (www.180dcmunich.org) was founded in 2015 and now has over 180 members. In 2019 it was named the World's Most Innovative Branch, reflecting its strong development over recent years.

TUM School of Management students are actively involved in 180DC Munich. The initiative thus represents an important complement to university teaching and offers organizations an opportunity to achieve the UN Sustainable Development Goals. In 2022, 180DC Munich hosted an impulse night on Sustainable Entrepreneurship where students invited co-founders of sustainability-driven startups, Gyri Reiersen from Tanso and Dr. Gesa Biermann from Pina Earth.

Model United Nations TU München – MUNTUM e.V.

Our students are engaged in university-wide initiatives such as the United Nations Model at TUM. They participate in hosting and organizing events. In 2021, this organization hosted a talk on energy, sustainability, and global politics addressing the question of how global politics affect energy politics. Andreas Betz, a TUM School of Management alumnus was invited, and he shared valuable insights on how energy policy is put into practice. Andreas Betz works at the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and is currently Head of the Secretariat: South African - German Energy Partnership.



180 Degrees Consulting is the perfect chance for students to make impact, as our projects have a huge focus on sustainability. My experiences with social and economic equality were amazing, because I know that I am learning a lot while doing something right.

Veronica Chung
B.Sc. Management, Consulting Director, and Board Member at 180 Degrees Consulting Munich

DIVERSITY AND GENDER EQUALITY

TUM School of Management has placed a strong emphasis on diversity in its code of conduct. We foster diversity because it enriches our school culturally and socially and contributes to excellent learning and research results. First, the School has nominated Diversity Ambassadors whose mission is to nurture a climate of respect, fairness, and inclusion at the TUM School of Management. Second, the governance of the School includes two different roles devoted to diversity, equity, and inclusion, namely the Vice Dean of Diversity and Talent Management, Prof. Dr. Nicola Breugst, and the Gender Equality Officer, Dr. Christian Feilcke. On the one hand, they design, introduce, and evaluate different measures to promote the diverse talents at the TUM School of Management across all levels. On the other hand, they are the contact persons for diversity and inclusion-related questions and challenges for all school members. In this function, they are also involved in the recruitment and hiring processes of new faculty members. As part of their roles, they also manage TUM School of Management's diversity fund which has two major goals. First, it aims at encouraging more female academics to reach the highest qualification at the doctorate and postdoctoral/habilitation levels. For this purpose, it provides financial support to female academics to attend conferences or training programs and the invitation of female role models. Second, the fund has the goal to raise awareness and spread insights on diversity-related topics across the school. As such, it provides support for the organization of events fostering diversity and inclusion and encourages researchers to diffuse their research insights on diversity-related topics to practitioners and laypersons.



At TUM School of Management, we believe that we need to integrate the voices of all our stakeholders to jointly shape a sustainable future. To give a voice to all these diverse groups, promoting diversity and inclusion is one of our core goals.

Prof. Dr. Nicola Breugst
Vice Dean Diversity and Talent Management at
the TUM School of Management



ASSESSMENT OF PAST COMMITMENTS

FUTURE COMMITMENTS 2023-2024

	Past Commitment 2021-2022	Progress achieved in 2021-2022
Principle 1	We will keep embedding PRME principles into our institutional strategy as well as improving methods of collecting and tracking information on PRME-related	In the past two years, TUM School of Management highly committed to Principle 1. PRME Principles are not only embedded in our school level but have also been expanded to the entire Technical University Munich
Principle 2	In the next two years we will develop a coherent overarching sustainability strategy and thereby deepen our commitment to the core values of PRME	TUM School of Management empowered all its stakeholders in its sustainability strategy, thereby bringing PRME-related topics among all members of the TUM School of Management community
Principle 3	One of our main objectives for 021/2022 is to assess sustainability-related content in all our teaching modules, both qualitatively and quantitatively, and to develop specific strategies to enhance the focus on sustainability in all our modules	Through a study project conducted by a team of students and supervised by the Chair of Corporate Sustainability, we quantitatively and qualitatively assessed the focus of our modules on sustainability
Principle 4	In 2021/2022 we plan to assess how our research relates to sustainability and sustainable development in both qualitative and quantitative way. Moreover, we will develop a specific strategy to enhance the focus on sustainability in our main research areas	The Chair of Corporate Sustainability developed a coding system to evaluate the focus of TUM School of Management's publications on SDGs. The coding system was used to program a software able to assess all publications at the university level
Principle 5	We will continue enlarging our existing networks and build new ones tackling the grand societal challenges and PRME-related topics	We enlarged the breadth of our network by engaging in depth with our key partners. For instance, we deepened our collaboration with academic partners in the Global South, engaged with industry leaders to bring real-world problems to the classroom, and also took our students to industry and unleashed their creativity in proposing sustainability solutions to our business partners
Principle 6	We plan to further foster dialogue on PRME-related topics across the school. For example, by initiating Project Studies for the assessment of the sustainability of our research activities and teaching modules; opening forums; and enhancing information exchange between different departments and centers	We launched and successfully conducted project studies to assess sustainability positioning at our school. We answered two major questions: Is our school sustainable? And how our school can go more sustainable. We made the reports available and disseminated recommendations to the TUM Sustainability Office team

Principle 1	We commit to keeping embedding the PRME principles in our school strategy and we ensure to advance the conversation on PRME principles at the university level
Principle 2	We aim at spreading the PRME values, incorporated into our School's Strategy, among our members. We want to promote initiatives at the School level, but also in collaboration with other Schools, where the TUM community can reflect on PRME values and how better embed them in TUM's everyday life
Principle 3	We will continue to enhance the expansion of sustainability-related modules under the A score in our coding system. In particular, we aim at monitoring the new Bachelor and Master in Sustainable Management and Technology. We promote the evaluation of the first three years by including the perspectives of several stakeholders involved. Such assessment will favor the expansion of new sustainable-oriented modules and degrees. Furthermore, we commit to promoting the new syllabus template, integrating a sustainability ranking
Principle 4	We commit to supporting our faculty members in conducting research at the intersection of management and sustainability. For example, we commit to advertising in our TUM School of Management community sustainability-related publications, third-party grants, or initiatives. Given the predominance of SDGs 7 and 12 in our publications, we commit to incentivize research on the remaining focal SDGs (5, 11, 13). Furthermore, we engage in further collaboration and better evaluate the sustainability level of our research
Principle 5	We will continue enlarging our existing networks and building new ones tackling grand societal challenges and deepening relationships with our partners. Boosting our focus on SDGs 7 and 13, we aim to strengthen the collaboration with TUM SEED Center to expand our teaching and research on sustainable and affordable energy solutions in the Global South. Similarly, we want to support more sustainable spin-offs through collaborations with TUM Venture Labs and UnternehmerTUM. Furthermore, we aim to build the TUM Sustainability Network dedicated to TUM School of Management alumni holding sustainability-related roles, to foster the dialogue and support our alumni to be leaders of transformational changes within their organizations and beyond
Principle 6	We further want to develop sustainability engagement at the university and beyond. We are committed to organizing more workshops, keynote speeches, and lectures around PRME-related topics on TUM Sustainability Day. We aim to improve dialogue within the school and leverage our cross-disciplinary approach to management and technology, via events and discussions at the nexus of technology, management, and sustainability

**Imprint**

Address of editorial office
Technical University of Munich
TUM School of Management
Arcisstraße 21, 80333 Munich

Publisher

Prof. Dr. Frank-Martin Belz
TUM School of Management

Chief editor

Rossella Rocchino (M.Sc.)
Mohammed Bendaanane (M.Sc.)
TUM School of Management

Contact

Rossella Rocchino (M.Sc.)
rossella.rocchino@tum.de

Design

Vanessa Schwarz-Franke
TUM School of Management