

Final Report

As part of the research practice Social and environmental sustainability - Trade-offs and opportunities

"Our Third Mission: Communicating Sustainability to a Non-scientific Public. An Overview of the Third Mission in Sustainability initiatives across Austrian universities"

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Vienna 2022

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1. Introduction (Peppi)

Research about sustainability is useless unless it is communicated and able to have an impact outside of the university itself - this became very clear through our research in the last semester. The Systematic Literature Review gave an overview of the ways in which different academic institutions approach science communication regarding their sustainability initiatives, thus establishing how important and varied the Third Mission can be. This final report now moves from an international perspective towards one focussed on Austrian universities. Through this we found that the Third Mission is often hazily embedded in the sustainability effort overall, and is rarely addressed explicitly, nor is it given any special attention - at least in most universities. A multitude of reasons can be made responsible for this, one of which is that its strategies are not obvious or well-known, and that they can and must vary greatly depending on the audience, intention and other factors. This is where this report comes in, as at the end of which we present multiple policy recommendations that could help improve the Department of Sociology's Third Mission and Sustainability initiatives. As will become clear throughout this report, it is vital that the university becomes a role model in this regard and fulfills its duty to society, not merely through the provision of information, but also through cooperation with society itself. Sustainability is, after all, a challenge facing us all and solutions to the current climate crisis and other issues are best developed together with the people who are expected to implement them.

In the following chapters, we first discuss the methods used in the making of this report, then move on to a quick overview of the state of the Third Mission or other science communication efforts in sustainability initiatives at Austrian universities. Starting with the University of Vienna as a worst practice example, discussing the various issues at hand, we then move on to our best practice example, the Karl-Franzens University of Graz, including its RCE. The descriptors "best" and "worst" can be taken with a grain of salt and should merely be viewed within the context of Austria - it is not our aim to be overly critical, but to point out shortcomings and then give an idea of what can be achieved if sustainability and science communication are made core issues - and treated as such. After discussing these two universities as examples, we then follow up with some policy recommendations, both general and concrete ones that could be put into action by those in charge of making policy decisions. Finally, we end with a short conclusion. The aim of this report is to first of all give an overview of this area, but to also serve as a guide and inspiration to those at the university and the department specifically on what is possible and what can be done in the future.

2. Methodology

For this final report three sources of information were utilized: four Interviews with key experts in this area, process tracing of different key events on several levels, and some additional document analysis of various plans and reports that were drawn up by the Universities of Graz and Vienna. The following sub-chapters further explain how this methodology unfolded during the making of this report.

2.1 Interviews (Arthur & Peppi)

The first step of our empirical research was to track down one key person who already works in the field and could function as a gatekeeper, as we were not able to define people working in specific initiatives and projects mainly responsible for Third Mission – as Third Mission activities are usually not specifically credited in an initiative's report. The initiative "Allianz Nachhaltige Universitäten in Österreich" seemed to be promising, as it connected multiple institutions with the goal of working together on topics of sustainability – an institution, which in itself is already part of the Third Mission. Our interviewee, who fulfills a key role in coordinating the Allianz and has done so for many years, turned out to be just what we expected in terms of their status and knowledge about other institutions' and peoples' work in this field. After our first interview, we had the names of multiple people who our interviewee thought would be interesting for our research, and whom we contacted in effect – at the University of Graz as well as in Vienna. All in all, four expert interviews took place from mid-April to mid-May.

The second interview was then conducted with the head of an administrative department at the University of Graz. Through this position the interviewee is involved in various projects dealing with social or environmental sustainability. Acting as a sort of gatekeeper for the sustainability and Third Mission initiative at the University of Graz, he helped us gain a better understanding of what one of the leading universities in Austria regarding sustainability actually does to communicate with society.

He also provided us with additional information, as well as further contacts we could use for our interviews - one of which ended up being our last interviewee, an employee at the RCE Graz-Styria, the Regional Center of Expertise on education for sustainable development. In the context of this RCE, which operates at the junction between university and society, his role entails working in some of its projects across various areas of interest.

Our last interviewee was contacted at the University of Vienna and not only works on multiple aspects of sustainability, but also focuses on developing alternative ways of measuring the output and impact of Third Mission activities. Accordingly, our goal was to get a baseline on the status of things at our own university, so we would get an idea of the possibilities on where to start with the policy recommendations for our own institution – the Department of Sociology.

After each interview the recorded audio was fully transcribed as soon as possible, as this would allow for some preliminary analysis that could be used for further interviews. Additionally, another column was added to each of the transcripts, in which major themes or topics could be written down, as this enabled a faster summarization of our results. Finally, an overview of the results was created to help us structure this report. During the writing phase, the interviews were again utilized as our main source of information and compared to other information we had gained over the past semester and through further online research.

2.2 Process tracing (Peppi)

Process tracing (Trampusch & Palier, 2016) was employed to help establish what developments have influenced the way Austrian universities conduct science communication with regards to sustainability. The starting point for this research took place during a lesson, when certain milestones were found through online research as well as knowledge acquired in the last semester. This resulted in a preliminary structure of four levels: the international and national levels, as well as one dealing with Austrian universities, and one dealing with international ones. Starting with this structure, further milestones and developments were added to the timeline through information gained via the interviews, which was then expanded upon through further research into the things that were mentioned. Due to two of the interviewees being from the University of Graz, we then decided to add another timeline level for that university alone, as this could serve as a best (or at least better) practice model for the Department. In order to flesh this out, more research was done, mainly via the website of the University of Graz. The results of this process tracing were mainly utilized throughout the following three chapters and served as a kind of guideline, showing how science communication has developed in sustainability initiatives and what events impacted this.

2.3 Document analysis (Peppi)

To complement the information gathered through interviews and the research done for process tracing, some documents were also partly analyzed. This included a short comparison between the development plans of the University of Vienna and University of Graz, particularly in the field of science communication and overall influence on society (Universität Wien, 2021) (Universität Graz, 2021a). Other documents were also considered for the writing of this report, notably the Grazer Model for Integrative Development (Mader et al. 2011), and the profile published for the transacademic interface manager by the University of Graz (Universität Graz, 2021b).

3. Overview: Communication of sustainability at Austrian universities (Arthur)

In the Process Tracing mentioned above we examined four parallel timelines which are of interest concerning sustainability and Third Mission. Those timelines are: 1. developments on an international level, 2. developments on a national level, 3. developments of international universities and 4. the processes Austrian universities underwent in the course of the last 22 years. Before the year 2000 there was not a lot of direct influence taking place except the 1992 Agenda 21 at UNCED Conference, also called the "Earth Summit", which "concluded that the concept of sustainable development was an attainable goal for all the people of the world, regardless of whether they were at the local, national, regional or international level" (un.org). It's preamble was opened with the following statement:

"Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being." (Agenda21, §1.1)

It has been thirty years since these lines were written, since this "defining moment in history" was recognised and followed by a call for action. The Earth Summit also introduced the term of sustainable development into international decision-making processes. And as we know, in those past thirty years the "deterioration of the ecosystems on which we depend" did not stop – in fact, it got worse. It seems like the warnings back then did not have any effect on our

societies' handling of the problems we were and still are confronted with. But what *did* happen in those three decades?

On the international level, the next steps were when in 2002 the World Summit on Sustainable Development (WSSD) was held in Johannesburg, which inspired strategies for the implementation of actions. This Conference is widely regarded as the first shift from words to actions on the international level of policy making (RCE Vienna Website). Then, in 2003, the United Nations launched their program on Education for Sustainable Development (ESD). Two years later, directly resulting from the ESD program, was the beginning of the UN-Decade for Education for Sustainable Development, which aimed for a holistic integration of the concepts of sustainability into education systems all over the world:

"The overall goal of the UN Decade of Education for Sustainable Development (DESD) was to integrate the principles, values and practices of sustainable development into all aspects of education and learning." (unesco.org)

The specific reference to educational systems meets the topic of the third mission quite well, as it was the overall goal to connect multiple institutions, disciplines, states with each other to share knowledge and information as well as develop solutions together (ibid.). Interestingly, this strategy was published before the **Sustainable Development Strategies of the European Union**, which were presented one year later in 2006.

It might have been due to the ÖSTRAT (Österreichische Strategie Nachhaltige Entwicklung) which was published in 2010 on a national level, that the Allianz Nachhaltige Universitäten in Österreich was founded in 2012 by the BOKU (Universität für Bodenkultur) and the University of Graz, two of the most ambitious universities in Austria in terms of sustainability. As the University of Graz takes a pioneer role in dealing with the topic of sustainability and Third Mission, we will devote a separate chapter to their processes (see Chapter 5). The foundation of this alliance, which gained nine members in the first year, was also influenced by the development of UNICA (Institutional Network of the Universities from the Capitals of Europe) Green and their SDGs which were established in 2011 - on the international universities' level of our process tracing.

The term "Third Mission" gained popularity in 2012, including three foci: the first on technology, transfer, and innovation, secondly scientific training and knowledge-transfer, and thirdly social engagement. The first aspect, especially innovation, became more and more important, while the other two never really gained a lot of impact - considering they do not involve any monetary advances for the institutions (as will be stressed in Chapter 4). It was not until 2015 that the

Sustainable Development Goals (SDGs) as a 2030 UN Agenda took effect. This development resulted in a few consecutive actions by various institutions in Austria, which led to what seems like more awareness concerning the topics of sustainability and the universities' responsibility in communicating their knowledge with the non-scientific public: in 2016, on a national level, the decision of the Council of Ministers in Austria on the "Agenda 2030" was passed¹, resulting in the integration of the term "Sustainability" as part of the "Leistungsvereinbarungsvorlage" of the Austrian Ministry of education in 2017. In the following years, more and more universities joined the Allianz für Nachhaltige Universitäten; by now 19 of the 22 Austrian universities are part of it. One of the last ones to join in 2021 was, of course, the University of Vienna. Being a little slow in the involvement with sustainability-related topics seems to be typical for this institution, which is the biggest of all the Austrian universities. This is, besides us being students at this institution, the reason why we are going to take a closer look at it in our next chapter.

So where do the universities in Austria stand right now concerning Third Mission on sustainability related topics? The answer is, unfortunately, that it does not look very good. According to one interviewee, who has worked at the Allianz Nachhaltige Universitäten in Austria for many years, the Third Mission "war bis jetzt nicht so das große Thema" (Transcript 1, S.4). What has been worked on are topics of measuring the impact of Third Mission, so as to prove positive outcome, to make it visible - and by that, getting a foundation for funding (ibid., S.5). It is the lack of money available exclusively for this kind of work which makes this topic so problematic for most institutions, and, of course, individuals. Our interviewee also told us that there has been a working group at the Allianz Nachhaltige Universitäten which attended exclusively to this problem and failed because of a lack of time, which in this case equals money, because all of the members of this group were volunteers. As of now, "da sind wir jetzt grad dabei dass wir versuchen ein bisschen Geld aufzustellen um das ein bisschen ernsthafter zu betreiben" (ibid.). The University of Graz, as well as the BOKU, seem to have working groups who intensively turn towards this topic - and again are (hopefully) taking the roles of trendsetters, especially for the work of the University of Vienna. Changes within this institution are urgently needed, as we will show in the next chapter.

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¹ The Third Mission Office of the University of Vienna, too, was founded in 2016.

4. Worst Practice: University of Vienna (Arthur)

A coordinator of the "Allianz Nachhaltige Universitäten Österreich" told us in an interview that "die Allianz ist ja schon entstanden (...) Anfang 2012" (Transcript 1, p.1). But when the University of Vienna joined in 2021, nine years had passed, during which most of the other public universities in Austria had joined, evidently much earlier than the oldest and biggest one. Out of the public universities in Austria, 19 out of 22 are now a part of the Alliance, with the University of Vienna being one of the last to join. The crucial factor for this decision was the last performance agreement:

"Das heißt es waren alle Universitäten aufgefordert sich einmal zu überlegen was das jetzt eigentlich heißt. Und musstens dann auch in ihre Leistungsvereinbarungen aufnehmen und das war jetzt ein Punkt, wo dann einfach sehr viele weitere Universitäten auch noch dazugekommen sind. Und jetzt mit den letzten Leistungsvereinbarungen dann auch die Universität Wien." (Transcript 1, p.2)

The University of Vienna needed the pressure from outside, from national political institutions, specifically the ministry of science. Before, there was no movement in that direction - the University of Vienna seemed to lack the intrinsic motivation needed for a step like that. But why? While missing committed individuals who put effort in this as well as active support from upper levels (which are both crucial factors for sustainable development, as we will see in Chapter 5), our interviewee locates the problem in the non-existent public funding of Third Mission projects, as was mentioned in chapter 3:

"weil ich mein es sind dann die Unis die das finanzieren müssen, (...) es gibt ja kein extra Geld dafür, aber es war jetzt nicht so dass jemand aktiv gegen das Netzwerk agiert hätte. Also das, das glaub ich kann ich ausschließen." (Transcript 1, p.4)

It seems that the problem is not that there is no open refusal of the topic itself, it's more about passivity, grounded in the structures of research and scientific work developed in the last decades. The focus lies on quantity, on measurable impacts in terms of amounts of journal-publications, citations, invitations to congresses – but the impact of Third Mission work cannot be measured in the same way.

"Das heißt es geht darum zu sagen: OK, wir müssen eigentlich weg von dieser sehr eindimensionalen Leistungsmessung, hin zu einer Leistungsmessung, die das besser widerspiegelt was man im Third Mission Bereich macht, und jetzt aus unserer Perspektive vor allem Third Mission im Bezug auf Nachhaltigkeit." (Transcript 1, p.5)

And even the so called "Impact Factor", which should be measured by the traditional methods, seems not to be all too reliable in this area:

"Weil wir wissen, und da gibts auch sehr viele Studien zu, dass diese eindimensionale Leistungsmessung wie sie jetzt funktioniert, Impact-Factor ist das wichtigste, eigentlich nicht das misst was sie messen sollte. Oder eigentlich nicht richtig misst, ja. Da gibts ganz viele Belege." (Transcript 1, p.5)

But while the question of measuring impact, its function and critique, are not fully part of this report, we would like to emphasize that this is a very important topic which should be (and already is) dealt with in other projects working on the field of Third Mission (for example at University of Graz and the BOKU in Vienna (Transcript 1, p.5).

One of the main problems of Third Mission seems to be that there are a lot of expectations from every direction, but no real blueprint on how to successfully develop Third Mission strategies or how to interact with a broader public as a university.

"(...) da kann man auch niemandem einen Vorwurf machen, ja. Weil Wissenschaftler natürlich in einem sehr engen Korsett agieren. (...) Karriere ist natürlich auch wichtig, ja, aber wenn man da irgendwie reüssieren will, dann muss man sich natürlich an die bisherigen Regeln halten, und die gehen leider, schauen anders aus. [Das Problem ist, dass] die Universitäten in einem Konkurrenzverhältnis stehen zueinander, (...) aber im Bereich Nachhaltigkeit soll es nicht um Konkurrenz gehen, sondern wirklich um die Kooperation. Das heißt, (...) dass die wirklich kooperieren und dass man sich gegenseitig unterstützt." (Transcript 1, p.6)

The interviewee of the "Allianz Nachhaltige Universitäten in Österreich" touches on some of the main problems in these few sentences: at the University of Vienna nobody felt responsible for developing programmes for sustainable development as long there was no space for them to take action in. The structures of scientific work are as tightly framed as they are slow in changing their shapes. And these changes are in need of committed individuals, who have to be in positions higher up in the hierarchy so they can actually transform the ways in which things work – and that is, if the structures are dynamic enough themselves. The smaller and more dynamic the institution, the easier it is to change. And the University of Vienna is, for an institution like this, the opposite of small and seemingly, maybe due to its age and status, not very dynamic in its structures either. But maybe now that the movement towards more

sustainable development is starting, there is a chance of not only changing the projects and initiatives, but the structures as well – and maybe there is inspiration in the way other institutions are handling the situation.

In the next chapter we will present one of those other institutions, the University of Graz, which has been working on integrating sustainability in its structures since back in the 1990s, and could maybe work as an example for other universities in Austria.

5. Best Practice: University of Graz (Peppi)

The Karl-Franzens-University of Graz was officially named as a "sustainable university" all the way back in 2005, but what does this title entail? To demonstrate this, let us start with tracing the process of sustainability at the university, including some key moments and their impact on further developments, particularly in the field of science communication. The main sources for this information were the interviews with the two interviewees from Graz, which were embellished through further online research to add details such as certain dates and additional information.

Though there was no real starting point, the establishment of the diploma studies of environmental systems sciences in 1991 can be identified as vital for the decades to come, as it paved the way for many graduates to help further an agenda of sustainability. The efforts of students and professors alike made it a regular study program by 2003, and nowadays it exists both as a bachelor program with emphasis on geography, business administration and economics, as well as a master program. In the following years, many smaller centers or efforts related to (social) sustainability and the Third Mission popped up in Graz, many supported by the university management, including the European Training and Research Center for Human Rights and Democracy (ETC) in 1999, the Montagsakademie in 2004, and the Wegener Center for Climate and Global Change in 2005. The Montagsakademie in particular aims to connect the university more with the rest of society by organizing 12 lectures per year on various topics, both in person and streamed online, which are made to be understood by people without an academic background. All these little changes led to the topic of sustainability and its communication beyond the borders of the university being considered more seriously, even by members of the rectorate, as emphasized by one interviewee:

"...das ist sozusagen schon langsam etabliert worden, auch im Rektorat halt immer wieder Personen gesagt haben: mehr Nachhaltigkeit - nein weniger direkt mit Nachhaltigkeit, sondern diese gesellschaftliche Verantwortung, die Rolle der Universität gegenüber der Gesellschaft, das ist schon seit 15 Jahren oder noch länger ein Thema im Rektorat. Das wir da was tun müssen, was tun wollen." (Transcript 2, p.2)

In this context, a sustainability coordinator was appointed (and institutionalized) at the University of Graz, and in 2006 the first sustainability report of any Austrian university was published here, with the second one following two years later. Inbetween, in 2007, the RCE Graz-Styria was founded as a center for sustainable social transformation and made an official center at the Faculty of Environmental, Regional and Educational Sciences in 2009, though this will be the subject of further scrutiny in the next chapter. Further developments again showed the university's commitment to drive forward sustainability in the rest of society as well: in 2008 the Open Laboratory Graz was established by Helmut Jungwirth by order of the University of Graz, which aims to provide various Hands-On Labs and courses for people of all ages, though they are primarily targeted towards children starting in kindergarten. These Labs still exist today and are a fundamental part of the University's commitment to science communication. To further coordinate their efforts regionally, four universities based in Graz created the joint platform "Sustainability4U" in 2009, which also organizes interdisciplinary lecture series. An Austria-wide effort was then launched in 2012, when the University of Graz and the BOKU Vienna co-founded the aforementioned "Allianz Nachhaltiger Universitäten". On the other hand, a breakthrough regarding the Third Mission happened around the same time, when the Seventh Faculty was established at the University of Vienna. As the Center for Society, Science and Communication it primarily deals topics surrounding environmental and global change and includes 20 research groups, all seeking to find innovative ways of enacting sustainable regional development.

In 2016 the University of Graz then appointed the **first professor for science communication** in Austria, the previously mentioned Helmut Jungwirth. They also received an **EMAS-certificate** in the same year, further establishing their role as a leading university in Austria in the field of sustainability. This was again confirmed by their co-founding of another alliance in 2019, the **ARQUS alliance**, which brings together nine international universities in a quest for more European integration and solutions to global societal challenges. But the regional efforts were also being driven forward by the founding of a **Christian-Doppler Laboratory** for sustainable

product management in a circular economy, which helps enable cooperation with various industry sectors.

The last milestones which round off the process tracing for Graz took place in 2021, when a transacademic interface manager was appointed to support participatory sustainability and climate change research. Based on the profile of this position, this involves acting both as a boundary and project manager as well as an educator and facilitator, especially with regards to stakeholders (Universität Graz, 2021b). While sustainability events at the University of Graz were largely omitted from this report to keep this process simple, at least one should be mentioned: the 20th European Roundtable on Sustainable Consumption and Production (ERSCP) took place in Graz in 2021, which again showcases how central this city and its universities have become in the sustainability effort despite not being nearly as big as Vienna. And there is one last achievement that took place in 2021: the building for the start-up and innovation hub "Unicorn", also called the ZWI, "Zentrum für Wissens- und Innovationstransfer" was completed on the campus of the University of Graz (ZWI Website). It encompasses meeting and conference rooms, co-working spaces, an open café to encourage communication, and is located right next to the building of the ÖH Graz. In it, regional entrepreneurs and researchers of the university have the opportunity to network, coordinate and found start-ups together, with a thematic emphasis on demographic change. The funds for it were received through the European Funds for regional development.

Today, the Karl-Franzens-University of Graz is a pillar among sustainability projects in Austrian universities, which also includes the area of science communication and ultimately, the Third Mission. Their philosophy is largely based on acting as a role model for the rest of society, as well as transforming society itself and making it better - all done in cooperation with exactly that society. An interviewee put it like this:

"...ganz stark auch den Fokus auf gesellschaftliche Transformation zu legen. Z.b. nicht das reine Wissen bereitstellen, so wie es lange Zeit üblich war, sondern zu schauen, wie kann die Universität da eine aktive Rolle einnehmen, wie muss man sich - um das Thema Klimawandel herauszunehmen - was muss ich da gesellschaftlich an der Einstellung, an den Verhaltensweisen ändern, und was können wir beitragen." (Transcript 2, p.1)

When reviewing the Third Mission at the University of Graz, it becomes very clear that it has long since shifted from old models of simple knowledge-transfer to ones based around co-creation and co-production of knowledge, as well as solutions. The theoretical groundwork for this seems to have been considered thoroughly and is still being worked on today, though transformative models have been influential for many years (see: Grazer Model for Integrative Development, next chapter). This becomes even more obvious when considering their target audiences, which they identify as such:

"Ja, mehrere Gruppen sozusagen, die wir erreichen wollen. Das sind zum einen Opinion Leaders aus den verschiedensten gesellschaftlichen Gruppierungen - nicht nur Politiker, sondern auch Unternehmen, NGOs. Und eine interessierte Öffentlichkeit." (Transcript 2, p.6)

These audiences are addressed through a variety of specific formats and strategies, based on two focus areas: climate change and societal transformation. Formats range from a new homepage and media packages at schools, all the way to a new start-up for decarbonization management and cooperation with e.g. the cement industry on how to minimize energy loss and increase sustainability, mainly through adjoining centers. Other channels include a pop-up store in the city of Graz, the various labs, a market for regional organic farmers at the university campus, and many EU-projects such as those dealing with bees. More projects are handled by the RCE Graz-Styria, which will be addressed in the next chapter.

With a focus on transdisciplinarity and co-production of knowledge it also comes as no surprise that cooperation with NGOs and activist groups is considered as an important part of working towards social sustainability.

In conclusion, a key aspect to furthering science communication in the area of sustainability seems to be institutional cooperation with various different areas, as the University of Graz practices it with the ETC, CCCA, RCE, the CD-Laboratory, the conflict-peace-democracy cluster, the Wegener Center, other Graz universities and even transdisciplinary actors and organizations. Other important factors, however, are the active support from upper levels, such as the rectorate, as without them, none of this would have been possible. But integrating the Third Mission firmly into the sustainability initiative is similarly vital; some strategies that the University of Graz employ include paying fees for completing third mission work successfully, but also establishing clear goals regarding science communication for each person when being appointed.

5.1 RCE Graz-Styria

The RCE Graz-Styria is only one of the institutions brought forward by the University of Graz that seek to promote sustainable development locally and globally, but it is one of the most central ones concerning the involvement of the rest of society. And it is not alone - there is an international network of over 170 RCEs, all with a similar goal:

"...alle verfolgen so ungefähr das gleiche Ziel, nämlich: Nachhaltigkeit im lokalen, regionalen und internationalen Kontext zu verankern, Bewusstseinsbildung zu betreiben."

(Transcript 4, p.2)

"Die RCEs sind per Definition solche Zentren, die Universität mit Gesellschaft verknüpfen, das ist deren Mission auch." (Transcript 4, p.10)

RCEs as a concept were first presented during the Twelfth Session of the Commission on Sustainable Development (CSD-12) in 2004, and started being founded and acknowledged in 2005. At the same time, the UN-Decade for Sustainable Development started and brought even more attention to the need for action and global partnerships to truly move towards sustainability. The idea for the RCE Graz-Styria was developed by O.Univ.-Prof. Dr. Friedrich Zimmermann, then head of the Department of Geography and Regional Science, as well as vice rector for research and knowledge transfer, and Dr. Clemens Mader, then a PHD fellow and lecturer. It was established in 2007 as part of the Department of Geography and Regional Science, which it still has strong ties to, and was made official in 2009. One of the founding concepts was that of the Graz model for Integrative Development, as created by Clemens Mader in his dissertation (Mader et al. 2011). The illustration below (Figure 1) shows how this model, that can be used to support any sustainable transformation processes, works.

Based on five principles, leadership & vision, social network, participation, education & learning and research integration, all divided up into three separate levels, these processes can be monitored from beginning till the end. Though this model is still prominent and can be described as timeless, it is used in more indirect means in the RCE as of today. Rather, each project is viewed as unique and suitable strategies have to be developed individually, with the help of various sources:

"Es ist jetzt auch schwer zu sagen, dass man eine einzige Strategie hat oder ein Modell, an

Even without explicitly utilizing this model, It is just these qualities that make RCEs so beneficial - they are small centers that can implement various transdisciplinary and participative projects regionally, while also networking both on a local and an international level. Their size and financial independence from universities also make them more flexible and able to act with less constraints than other university departments.

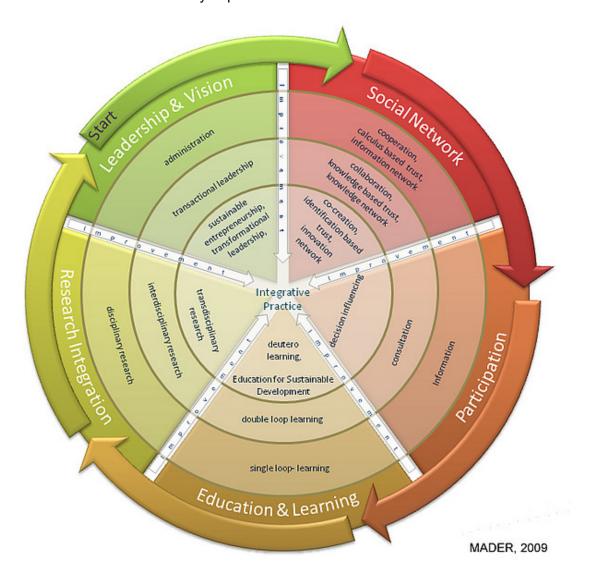


Figure 1 (Mader 2009)

The RCE Graz-Styria in particular is funded mainly through third parties, including many EU-projects. A lot of its staff and associates are also employed at the department of Geography and Regional Science, further cementing the links between these two institutions. Today, there

are six action fields at this RCE, including socio-ecological transformation, sustainable living, urban green space, sustainable mobility, alternative economy and spatial digitization. However, many of these fields overlap in the various projects, which vary greatly. There are district-based ones, like My Smart City – a new city district that was created from the ground up, or City of Collaboration, trying to create a sharing economy and establish food crops. On the other hand, one project seeks to make tourism greener, by combining the knowledge of small, traditional corporations and start-ups with innovative technologies.

Central to these projects is the transdisciplinary aspect, which is brought to life by cooperating and working together with numerous societal actors from all areas and levels. As one interviewee put it:

"Allein, dass Gesellschaft schon im Titel vorkommt zeigt so ein bisschen die transdisziplinäre Ausrichtung auch, dass wir nicht nur inneruniversitär forschen wollen, sondern dass wir den Kontakt suchen zur Gesellschaft und auch Forschung mit der Gesellschaft betreiben. Das heißt Projekte so aufsetzen und konzipieren, dass Menschen aus der Gesellschaft, aus allen Bevölkerungsschichten involviert sind, aktiv dabei sind." (Transcript 4, p.3)

Like with the University of Graz, this can even involve NGOs and activists, but also community leaders and small local organizations that might have valuable knowledge on how to make an impact. This is why networking is vital to science communication, both within the university and outside of it, though this will again be addressed in the policy recommendations.

It should also be mentioned that a RCE already exists in Vienna, having been founded in 2011, though it is tied to the WU Vienna, not the University of Vienna. However, it remains unclear if there has been any cooperation or networking between the two universities in this regard.

5.2 Interim conclusion

Now that our worst and best practice examples have been presented, we would like to briefly compare the two, both through the results of our interviews and research as well as further consideration of the development plans of both universities. They were each released in 2021 and introduce aims for the years 2027 and 2028 respectively, making them possible to compare regarding their science communication and Third Mission perspectives.

The science communication chapter of the Vienna report is titled "Wirken der Universität in der Gesellschaft - Wissensaustausch" and primarily deals with internal issues, including teaching, research and data analysis methods and matters of open science/access (Universität Wien, 2021). On the positive side, this internal focus encourages knowledge exchange within the university, which Graz also promotes through different formats of interdisciplinary dialogue. On the other hand, this means that the aspect of actually communicating outside of the university is hardly addressed in concrete ways, and is even then still very much focussed on industry cooperation and technology transfer. Involving civil society is really only mentioned when talking about heightening the scientific literacy of the public to improve understanding and trust, but this should be seen as a two-way street. For example: while Graz offers education options for a broad public in various areas, we found through our interviews that they also deal with questions on how to make scientists more familiar with science communication concepts. Useful ideas in the Vienna development plan include the openness towards start-ups, a desire for long lasting cooperations, for example through a CD-laboratory, and plans to employ participatory measures. There also seems to be an awareness that no one model fits all, but no clear ideas on who will develop these new formats and channels and in what context. Similarly, a desire to help shape societal developments is expressed through taking up questions from praxis, with no concrete strategies formulated to achieve this.

Overall, the chapter on science communication in this report does not mention sustainability at all, showing that these areas are insufficiently interconnected. Even the term "sustainability" itself is only mentioned 12 times in almost 200 pages, with a large focus on digitalization and infrastructure and no more than vague ideas.

The second development plan by the University of Graz bears the title "Gesellschaftliches Engagement – We drive societal development" and expresses a desire to make sustainability a leading principle in all areas of the university, ultimately aiming for a deep transformation (Universität Graz, 2021a). Contrary to the Vienna report, four strategic goals are formulated and various endeavors, initiatives and related alliances and networks named, already showing much more tangible plans and results in this area. Thus, the future plans are less focussed on starting new projects and more on making existing efforts more visible and coordinating them better, though there are also some new ideas, such as the self-developed institutional carbon management that should be implemented soon. Another factor that was left out of the Vienna report when it comes to science communication and sustainability was that of students, meanwhile Graz vouches to include the ÖH and local student sustainability initiatives in all sustainability related decisions. They also offer many opportunities for students themselves to found start-ups and become entrepreneurs. Lastly, social sustainability is taken into account as well in the Graz development plan, including issues of democracy, social justice and solidarity, as well as setting the goal of increasing diversity and eliminating discrimination. While the University of Vienna does have certain commitments regarding this area, there needs to be a better understanding of how these issues are related to sustainability.

In general we found through our research that the University of Vienna seems to be far behind the University of Graz in many regards when it comes to sustainability, but especially in the area of science communication. As we already made clear in the last report, the Third Mission project of the sustainability initiative at the Department of Sociology lacks a solid theoretical foundation as well as innovative ideas and approaches. The plan itself conveys a sense of insecurity and no willingness to be bold, creative or really any plans on properly engaging people outside of the academic world beyond vague ideas of workshops. Additionally, the development plan interweaves science communication with efforts in research, teaching and organizational culture, but barely addresses it specifically, nor in conjunction with sustainability. While we will discuss policy recommendations in the next chapter, the lack of sustainability reports from Vienna deserve some mention, as these reflect a lack of transparency and accountability in this area, and we believe that they could also help to increase self-reflection within the university. Graz for example has been releasing them for over a decade, and even all the way back in 2012 this included chapters on teaching, research, environmental protection and infrastructure, social sustainability as well as inter- and transdisciplinary networks. Thus these reports could present a helpful guideline for other institutions who wish to follow in their footsteps.

Lastly, it is also interesting to note that the Third Mission is rarely addressed as such, partly because of its connotations with the classic transfer model. Graz refers to this area more in the

terms of science communication or societal transformation or development, and the BOKU as an exchange with society. These wording choices already reflect the approach these universities take in this manner, and the Department of Sociology should also think about what approach and thus which term to employ.

6. Policy recommendations

In order to make our research fit for use and practical application, specific policies were formulated and will be discussed in the following. While we will go into concrete policy recommendations in the second part of this chapter, we first would like to address some more broadly worded advice, which every person can take to heart. After all, the road to sustainability is a communal effort in which each person can have a large impact, even if they are not in a position to affect policy choices.

6.1 General recommendations (Peppi)

In order to improve the sustainability endeavor as a whole and science communication in particular, a couple of things need to be strengthened and expanded upon: networking, transparency and transdisciplinarity. More networking, both within, between and outside of universities, ensures that existing efforts can be improved by taking into account the knowledge and expertise of other actors. This includes more cooperation, particularly between the Third Mission office and the people responsible for the sustainability initiative, as well as more communication with other universities, who can convey their struggles and successes. While this can help to be more interconnected on the international and national scale, it is cooperation with all kinds of regional organizations and societal actors that can truly help create solutions that can be implemented on a smaller scale. And it is truly cooperation that needs to be fostered - not competition. While being competitive can still be helpful in the regard of making the Department of Sociology more attractive to students interested in sustainability, the topic itself calls for cooperation first and foremost.

Another factor that needs to receive more attention is the issue of **transparency**, particularly towards the outside world. How this can be achieved concretely will be addressed in the next section, but it is vital that this aspect is improved upon in all areas of the sustainability initiative. This also includes promoting science communication among staff and students, as well as developing strategies that can help make scientists more comfortable with its practical application. Changes to the organizational culture have to be made, to ensure that the Third

Mission is addressed directly instead of letting it sit on the back burner. As one interviewee put it, this is one of the biggest hurdles in putting the Third Mission into practice:

"Wo's die größten Herausforderungen gibt im Breiten ist - Investitionen nur indirekt - in der Wissenschaftskommunikation, die Wissenschaftler:innen selbst, also um da Zeit zu reservieren, sich zu nehmen, da in der Third Mission aktiv zu werden. Das heisst: Warten ist ein langer Prozess. Es geht nicht nur um Lehren und Forschen sondern es geht auch um die Third Mission." (Transcript 2, p.3)

In the same vein, transdisciplinarity and innovation need to be increased upon, both in research and in other areas. This can include all kinds of existing models, though broadly speaking the ideas behind co-creation and societal transformation seem to be the most effective at circumventing a classic knowledge transfer model. The focus here should be on creating a common vision which everyone can follow. Allowing for more innovation and overall creativity in approaches can help make the Department of Sociology a role model and simultaneously allow it to break away from traditional conceptions of the university as an unapproachable ivory tower. A side effect of this could also be growing acceptance among the surrounding community, as they can be included more in the research process and the creation of solutions, thus feeling less like they're being patronized.

Overall, it should be kept in mind that the university can take the position of a role model in the road to sustainability, since only giving instructions but not setting a positive example will likely be viewed as inauthentic. This can also be applied to an individual level, however: particularly in the Third Mission, **individual engagement** is extremely important. While achieving sustainability may seem like a vague, unreachable goal, individual people and their engagement can bring us forward much more than they might realize. After all, in the example of Graz it was largely due to certain (vice-)rectors that were passionate about social responsibility and sustainability that many of the initiatives there were able to be implemented over time. Similarly, the RCE Graz-Styria was founded mostly by just two people: one head of department and a doctorate student. In conclusion, it pays off to be stubborn and fight for a cause, or as one interviewee put it:

"um sowas aufzubauen es glaub ich schon, es braucht einzelne Leute, die extrem engagiert sind und die dahinter bleiben und die eine gewissen Hartnäckigkeit auch haben und die einfach an die Sache glauben und die das dann umsetzen." (Transcript 1, p.9)

6.2 Department of Sociology (Arthur)

In a more specific approach of defining policy recommendations which can actually be implemented by the Department of Sociology there are tasks to be tackled on a very **concrete level**, as well as tasks concerning the overarching theoretical background, which we would locate on a **medium level** compared to the general recommendations in chapter 6.1. Those two levels will be interacting with each other in the following - and the level of each policy recommendation will be highlighted by using the two colors introduced above.

To allow for sustainably and coherently taking action as a unit, the department has to first give explicit attention to science communication in sustainability initiatives - this includes making sure that there are specific people in charge in this area. The second step is finding a consistent definition of Third Mission, as well as, in a next step, defining target groups and strategies with individual formats addressing sustainability. While those two recommendations are located on a medium level, they can be achieved by founding a Sustainability Advisory Board. This Board's main function is to make the topic of sustainability more prevalent and strengthen the awareness of the problem at the Department itself. By changing mindsets, this policy recommendation on the concrete level aims to get the ball rolling and help establish the aforementioned common vision with clear goals and strategies. The Sustainability Advisory Board needs to be open for and involve everyone working and studying at the Department, because, as we have shown in our first semesters' report, people are significantly more willing to become active when involved in decision making processes themselves. This includes students, professors, as well as transdisciplinary actors, as needed.

Following the foundation of the Board, in a next step it would be helpful to introduce **Sustainability Reports**. As mentioned in chapter 6.1, these reports have been published by the University of Graz regularly since 2006. Sustainability reports create transparency concerning the impact and specific achievements in this field. Containing information on achievements in e.g. teaching, research, environmental protection including infrastructure, social sustainability, as well as inter- and transdisciplinary networks, these reports have the power to strengthen the recognition outside of the Department for the institution as a whole (acting as a role model inside of the university) as well as highlighting achievements of individuals. Which, in effect, amplifies the motivation of everyone involved.

As has been stressed before, individual motivation and engagement is a vital aspect of achieving sustainable changes in this field. On the one hand, it's important to find key persons like experts and people functioning as mediators between the university staff and other members of society, who can contribute their experience and knowledge to help make changes, focusing on specific projects. On the other hand, defining individual sustainability goals for everyone at the department would be a necessary step to achieve sustainable changes. One way of doing this is by defining requirements concerning sustainability as well as science communication (as a separate issue) when new members of the scientific staff are hired. This is a very easily implementable policy, which could help stir change in the mindsets of the staff. Applicants have to be aware of how they want to address sustainability in their research and in their teaching. By that, the staff develops an immense potential of becoming multipliers. Some of them are holding weekly lectures in front of hundreds of students. Imagine them stressing the topic again and again. Again: It is immensely important not to underestimate the impact of individuals.

To strengthen Alliances with other institutions and by that introduce new initiatives regarding sustainability and science communication for scientists and other people involved at the department and beyond, our last and maybe most demanding policy recommendation is for the Department of Sociology to found a Regional Center for Expertise. As extensively presented in chapter 5.2, the RCE is a center for sustainable social transformation, connected to the university but working independently, consisting largely of people who work at the university. The RCE operates at the junction between the university and society, promoting sustainable development locally, regionally and globally by doing research and trainings as well as mutually creating knowledge and projects between science and society, hereby stressing the vital aspect of co-creation. RCEs offer immense international expertise, being connected to a total of 170 RCEs worldwide, and as small centers they are typically much more flexible and dynamic than big, traditional universities. Being almost entirely funded by third parties, the financial aspect is definitely bearable - while the possibilities offered by connecting an RCE to the Department are highly promising. Differing from the classical universitary department, the RCE is being born out of the spirit of societal transformation and therefore focuses on inter- and transdisciplinarity. While normally connected to departments for geography and spatial development (e.g. in Graz), we are confident that the Department for Sociology can do it too. As sociologists it is our daily business to work on society - but we think that the Department is ready to go beyond that and start working with society.

7. Conclusio (Arthur)

In the preceding chapters, we discussed the state of Third Mission and other science communication efforts in sustainability initiatives on an international level as well as at Austrian universities. While we focused on the University of Vienna as a worst, as well as the Karl-Franzens University of Graz as a best practice example, we tried to carve out the premises which (don't) allow sustainable development. We saw that if sustainability and science communication are made core issues, and treated as such, overarching changes in the thinking and working of universities are possible. And we think that by looking around at how other institutions solve their issues, we, as the Department of Sociology, as well as the whole University of Vienna, can learn a lesson and change our own actions to reach a better outcome. Integrating the term "sustainable development" into their performance agreement got the ball rolling - a little late and a little slow, but still - and now it's crucial to keep this same ball moving.

Following this spirit we tried to develop a number of policy recommendations, starting with broad ones like enabling more networking with other universities and external institutions, while focusing on innovation, transdisciplinarity and co-creation (which confirms the theoretical findings of our Systematic Literature Review last semester), paying attention to transparency and, maybe most importantly, acting as a role model to gain authenticity, and by that, credibility in relation to other societal actors. On a medium level we found that it's important to specifically define target groups and strategies, and to find committed key persons who can function as mediators or external experts. Our concrete policy recommendations focused on the actions our Department of Sociology would be able to actually implement, such as introducing sustainability reports, aim for cooperations with other institutions and implement Third Mission strategies as a necessary premise for newly hired scientific staff.

Our recommendations could be easily integrated in the existing structures of our university, if there is enough effort made, even by individuals: As we have seen and want to stress once more, individual engagement is extremely important. It can bring us forward and shape the future of the institutions much more than one might realize. And by that, it can even shape the future of our whole society. This report shows that it is vital that the university becomes a role model in regards to sustainability and fulfills its duty to society, not merely through the provision of information, but also through cooperation with society itself. By working together, we can change the world – it just takes some effort to do so.

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