

Final Report

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

"Infrastructure/Mobility: Making business trips at the Institute of Sociology more sustainable"

Submitted by

Caroline Maaß Christoph Swatosch Balzhan Tleuzhanova

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Supervisor:

Univ.-Prof. Yuri Albert Kyrill Kazepov, PhD Tatjana Boczy, BA MA

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Final Report - Part I

1. Introduction

In recent decades, particularly in recent years, sustainability has become a major topic of conversation not only in the media and in people's daily lives, but also in the area of scientific-ecological, economic, and social research. Present-day environmental developments around the world have underlined the importance that the future of our world is very much dependent on the state of the environment.

Every year, more and more universities are recognizing the importance in increasing awareness of sustainable development among their students, researchers and other employees. Most of the universities have conducted environmental audits to assess their Ecological Footprint (EF) and developed green management strategies. Starting in 2021 the Institute of Sociology at the University of Vienna has been introducing a sustainability project, named "Going Green". The Institute is working hard to develop an organizational culture that is formed by the ethos of sustainability. It also encourages collaboration and engagement with various organizational units within the University of Vienna, as well as with other Austrian universities. The goal is to create possibilities, identify certain measures, and implement them into the university's life (Going green 2021). The role of this project in the interests of sustainable development presupposes interdisciplinary cooperation, reflecting a new integrated approach to the interrelated development of society, the economy and the environment.

To assess the topic of the institution's sustainability, the strategy's content is organized into five topic areas, such as Infrastructure, Teaching, Research, Third Mission and Organizational Culture. To develop this competence, specific solutions in all five subject areas are being constructed (Going green 2021). This paper aims to develop one of the themes of this large project i.e., Infrastructure.

We will try to map out specific measures/policy changes the University of Vienna can implement in order to reduce their greenhouse gas emissions, related to infrastructure and mobility in particular, but air travel specifically. In order to do so we will start the report with a more general part, where we go into various definitions, concepts and data of sustainability and infrastructure, followed by a Systematic Literature Review, which will provide an overview of the available research on the topic, and finally conclude with a Case Study of the University of Vienna, where we will assess the current measures taken by the University and provide additional input and analysis.

2. Concepts/Definitions

2.1. What is Sustainability?

The United Nations Brundtland Commission from 1987 (United Nations, Academic Impact) defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." Meaning a higher quality of life for everyone today and in the future. The concept of sustainability reflects the process of changing public consciousness, and the orientation of scientific, technical and economic development towards strengthening the current and future balance between human needs and exhaustible natural resources. Sustainable development may also be defined as a social and economic process that cannot be sustained merely in the short term without unnecessarily degrading the environment's ecological system. A sustainable society's actions function in such a way that future generations have a chance to live a sustainable life as well.

In its reports, the UN emphasizes that sustainability is possible only when three elements are in equilibrium, them being, economic growth, social equality and ecological balance. They are also called the three pillars of sustainable development. In this paper, we will consider sustainable development from the perspective of ecological balance.

John Morelli (2011) defines environmental sustainability as "a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity".

2.2. Ecosystem

Humans are a part of the ecosystem, and the future of the entire planet depends on our daily actions. Humans, by using more resources than is being considered sustainable, destroy and or alter the biophysical environment, including the atmosphere, hydrosphere, lithosphere and the biosphere, which leads to massive loss of life. The cumulative influence of humanity on the planet is made up of the individual's influence of all humans living on Earth. Individuals who, to varying degrees, are using resources (renewable and non-renewable). They are then being responsible, either directly or indirectly, to the destruction of the planet's biophysical

environment, and are therefore showing to be a strain on ecosystems and mess with their internal equilibrium.

Ecosystem stability cannot be maintained or guaranteed if the laws of internal dynamic equilibrium are violated. Not only is the health of the natural environment endangered, but in the foreseeable future the presence of the entire complex of environmental natural components, like air, water, flora and fauna are also at risk. Numerous studies show that humanity is already consuming more resources than the planet can reproduce, and the forecasts are disappointing. According to the Global Footprint Network, an international research organization that annually evaluates the amount of resources humanity is consuming, we would need the equivalent of 1.7 Earths to support our current lifestyle. The organization also calculates every year Earth Overshoot Day and in 2021 it was on July 29th. That means the day when we finished using our resources for the year (Global Footprint Network).

The task of society is not only to reduce the consumption of resources, but also to change the structure of consumption. The goal of sustainable development is the survival of humanity as a whole and an improvement in the quality of life for each person individually. In many ways, we are talking about ensuring the health of the natural environment. Environmental sustainability can be achieved: by improving resource efficiency through the introduction of more advanced and environmentally friendly (waste-free) technologies; by implementing science-based environmental management and protection activities (such as sustainable development programs and "green investments"); and by reducing anthropogenic pressure on the planet. "In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations" (Brundtland Commission Report 1987).

2.3. The Ecological Footprint

To assess the sustainability of human impact on the environment, scientists created a measure called The Ecological Footprint (EF). It measures human consumption in terms of biologically productive land, which provides the resources that humans need and to assimilate its waste. The Ecological Footprint is based on the first sustainability principle of Daly (1990) i.e., that harvests of renewable resources should not exceed their regeneration (as cited in Syrovátka). It has become one of the most extensively used indicators of humanity's impact on the environment, highlighting both the unsustainable nature of existing behaviours and

highlighting resource consumption differences across and within nations. Nutrition, housing, mobility are key areas in which an individual's daily existence has an influence on Earth's biocapacity (Richie & Roser 2020). Knowing your own EF is the first step toward developing and implementing strategies that will help you reduce it.

2.4. Awareness & Education

Awareness plays an important role in the transition to sustainable development of nature and society as a whole. For this transition, complex solutions are required, implemented in parallel in territories of different sizes, which would combine innovative technological solutions and expert support. The leading role in the search for such solutions is assigned to scientific and educational centers. Higher education institutions are an important part of the socio-cultural environment of the nation. In the face of environmental destruction, universities are assigned an important role in shaping a model of a society that takes into account the interests of future generations in its activities, based on a sustainable development strategy.

Education that includes a focus on sustainable development is seen as a necessity for saving the environment for the future generations. One of the ways to make positive changes is to integrate the principles of sustainable development into the functioning model of the university. In this case, the search for ways of introducing the principles, methods and practices of the concept of sustainable development into the strategy of the development and functioning of the university comes to the fore.

2.5. Infrastructure

The *Cambridge Dictionary* defines infrastructure as "the basic systems and services, such as transport and power supplies, that a country or organization uses in order to work effectively" (Cambridge University Press). Another definition on *Cambridge Dictionary* goes as follows "the basic systems and services that are needed in order to support an economy, for example, transport and communication systems and electricity and water supplies" (Cambridge University Press). In a simple yet a very broad term infrastructure includes everything a modern society needs to function. More examples not yet mentioned are airports, mass transit, housing, emergency & health services, education system and waste facilities. According to OurWorldInData.org Infrastructure is responsible for 81.6% of global greenhouse gas (GHG) emissions (Richi & Roser 2020). This includes 73,2% allocated to Energy, 5.2% allocated to

Industry and 3.2% to Waste (Richi & Roser 2020). The other 18.4% are emitted through Agriculture, Forestry & Land Use (Richi & Roser 2020). Looking at this example Agriculture could theoretically also be considered infrastructure, which would lead to infrastructure being responsible for all GHG emissions.

This leads us to two points. First it seems infrastructure is indeed a very broad term, so broad even that infrastructure seems to be responsible for all GHG emissions of humans. Humans forming societies in artificial/non-natural environments therefore was the starting point of today's climate catastrophes. Second, narrowing down infrastructure to something more tangible and concrete is therefore necessary.

Our task was to focus on mobility in terms of transportation. Transportation is an essential part of today's societies. The most personal use of means of transportation is getting from point A to point B. Be it, among countless other examples, by car to get to work, by public transport to meet a friend or by plane to go on a vacation or a business trip. Apart from simply using their own body to walk places, almost everyone today relies on some sort of means of transportation on a daily basis. Another use of means of transportation is getting goods closer to where you are. Be it groceries that are being transported to the store in your neighborhood or clothes and electronics being flown in from overseas and transported directly to your doorstep. Not to mention the world-engulfing supply-chain. According to OurWorldInData.org the whole transportation system accounts for 16.2% of GHG emissions (Richi & Roser 2020). 11.9% of which come from road transport, 1.9% from aviation, 1.7% from shipping, 0.4% from rail and 0.3% from moving for example gas and oil through pipelines (Richi & Roser 2020). Looking closer at road transport and aviation we see that the majority of emissions in each category is predominantly caused by passenger travel rather than freight. In road transport 60% is accredited to passenger travel and in aviation about 81% (Richi & Roser 2020).

Mobility is one of the main emitters of GHG emissions at universities or associated with the university as an institution (Getzinger et al. 2019). Trips to and from the university taken by students and staff, business trips taken by the staff and trips taken for out of country exchange programs or stays are to be considered. Within mobility, business trips seem to account for the most emissions. They add up to about 67% more emissions than all the other aforementioned reasons combined (Getzinger et al. 2019).

3. Systematic Literature Review

3.1. Methodology

In order to find fitting research for our topic we started out by thinking of a research question. The first iteration ended up being the following:

"How do other high educational institutions deal with reducing the carbon footprint of their staff, related to their choice of transport?"

Then, with the use of *Web of Science*, a citation database, we tried to find research that fit this research question. The first search string we used, which led to 23,248 results was the following:

sustain* AND mobil* AND universit*

The search string looks for research which includes all of the words in the search string. The star-sign allows for various different endings of the given word e.g. sustainability and sustainable or universities and university. Looking back at the string we probably did not have to put the star-sign at the end of *mobil*, since there are no other relevant words except "mobility". In order to narrow down the results we applied filters. The first filter was the publication years. We filtered out everything up until 2014. The reasoning behind this decision was that starting in 2014 there were 1000+ results available, before that there were only a couple of hundreds going down to just 3 in 1984, which was also the first year yielding any results. We also thought the more recent the results the better and relevant they will be for us. The second filter we used was open access. With those filters applied we narrowed the 23,248 entries down to 8,755. It should be noted, that filtering through open access is not helpful, since there is a chance relevant research will be filtered out, especially research from researchers that could not afford to pay the listing and access fees. Due to a misunderstanding a person in the group thought it was necessary. At last we filtered by languages. In our group we speak English, German and Russian which led us to approximately 100 results fewer, 8,651. Environmental Sciences, Green Sustainable Science Technology and Environmental Studies were the three largest categories the results were associated with.

Since 8,651 were still way too many results we decided to adapt the search string by adding two more keywords:

sustain* AND mobil* AND university AND transport* AND carbon*

We added the same filters as in our first string, them being the publication year, open access and language filters. We ended up with 361 results, where Environmental Sciences, Green Sustainable Science Technology and Environmental Studies again were the three largest categories.

**As of writing this and playing around with the search strings, interestingly using 'universit*' instead of 'university' yields fewer results in both the first and second search string, even though universit* should be broadening the string in terms of results.

After not feeling satisfied with our results, we narrowed down our research question to the following:

How do other high educational institutions deal with reducing the carbon footprint of their staff related to air travel?

We put the focus on air travel for two reasons. First we all felt that air travel is the most relevant element in an universities GHG profile regarding mobility, which was confirmed as stated in the introduction (Getzinger et al. 2019). Second, reducing business trips taken by air travel is one of the operational goals stated in the 2021 introduced sustainability project *Going Green* of the Institute of Sociology at the University of Vienna, which this course is part of. In order to find research related to the new research question we came up with a new search string:

sustain* AND air AND travel* AND academ*

We filtered by open access and by the same language filter as above, and got 44 results. Environmental Sciences, Green Sustainable Science Technology and Environmental Studies were again the categories yielding the most results. We felt those 44 entries were a good result to start looking into the studies more closely. We then also slightly adapted the current research question to our final one:

What measures can high educational institutions take to reduce air travel related carbon emissions and how can they implement those measures?

By measures we mean steps, actions or policy changes

After our initial systemization of the results and the feedback given at class we removed the open access filter and ended up with 33 more results (77 in total) with the same search string.

The initial step of the systemization of the results was to look at the title and if needed at the abstract of each of the 77 results in order to determine if they actually showed relevance to our topic and research question. Relevance was easily determined whether the article was about air travel in academia. An example of an excluded paper, due to the lack of relevance to our research question was:

The Evolution of China's International Aviation Markets from a Policy Perspective on Air Passenger Flows (Wang et al. 2019).

An example of an article we included in our further systemization was:

Carbon Footprint of Academic Air Travel: A Case Study in Switzerland (Ciers et al. 2019)

After removing all articles that were not relevant we ended up with 17 articles that were useful for us. The second step of the systemization was to gather information about the 17 articles in a table: author(s), title, publication year, publication type, method(s), sample size, results, geographical location, theoretical framework and analytical dimension. Based on these categories we started our analysis.

3.2. Results

The geographical location of the different articles showed us that Europe (Switzerland, Germany, United Kingdom, Finnland) and North America (Canada, USA) were the two main regions where studies about air travel in academia were conducted. Some articles were results from collaborators from all over the world. But many of the other articles have the claim to be internationally relevant. The three articles from Australia might be an exception to that. Based on the more remote location and the wide distances between cities let alone to other countries, we have to keep in mind that measures and motivations in Australia may not be applicable in the global north.

The articles we found were all published between 2018 and 2021. This shows us an increase of interest towards flight emission reduction in university related travels. But it also

illustrates how travel emissions were considered not as relevant before that time and the recent number of studies about flight reduction in academia could be improved.

When we compared the methods we divided the articles in mainly quantitative and mainly qualitative research. Ten of the articles included qualitative research such as qualitative interviews, case studies or data analysis. One article was only based on literature but the other six articles focused on quantitative data analysis.

Reading the articles it became clear that we could divide them in two main categories. Seven articles focused on the aspect of how to reduce carbon emissions produced by flying in academia. The other ten articles addressed the social aspects of why flying in academia is relevant today and what flying less would mean for the academic society. While dividing the articles in different categories it was striking that articles about how to reduce flight emissions used mainly quantitative methods and articles about the social aspects of flying mainly used qualitative methods.

How to reduce flights in	Social aspects of flying in	more qualitative	more quantitative	
academia	academia	research	research	
А	В	В	А	
D	С	С	D	
Е	F	F	Е	
G	J	G	Н	
Н	К	К	J	
Ι	L	L	Ν	
Р	М	М		
	N	0		
	0	Р		
	Q	Q		

Every letter stands for one of the 17 articles. The left part of the table shows the topic, the right part the kind of research used. The blue boxes highlight the connection between "reducing flights" and "quantitative research" and the orange boxes highlight the connection between "social aspects" and "qualitative research".

How to reduce flight emissions

Even though there were no laid-out action plans to reduce flight emissions we did find a vast number of suggestions. Ciers et al (2019) have several recommendations on how to reduce greenhouse gases related to air travel: replacing all business and first class with economy, replacing short continental flights and connecting flights below 800km with another mean of transportation, avoiding layovers and replacing all indirect with direct flights. It also shows that there is a higher correlation between the amount of money spent and CO₂ emitted than between distance traveled and CO₂ emitted, meaning the measure of air travel budget restrictions could be very effective in reducing GHG emissions (Ciers et al 2019). Additional ways can be to encourage ground-based travel and other low-carbon practices, when possible, to reduce or combine less important trips (Williams & Love 2021) and to force train traveling and to prohibit domestic flights (Kreil 2021).

Changing the mean of transportation is one way to reduce GHG emissions. Another way is changing conferences themselves. For example, alternating in-person and online conferences, offering a hybrid in-person/online conference and decentralizing the conference with multiple conference venues are possible options (Bousema et al 2020). Van Ewijk & Hoekman (2021) examined the impact of having an international conference at several locations at the same time. According to them, having a two-site conference would lead to 25-50% reduction and a three-site conference to 82% while an all-virtual conference would eliminate all travel related emissions.

Stopover reduction, reduction of the number of 1–2-day trips and more alternative transport forms while holding virtual meetings instead of short trips, standardizing emission calculators and more short than long distance travel at the same time are further changes that could lead to GHG emission reduction (Ahonen et al 2021).

Another way to reduce emissions is to understand the system behind high carbon practices and how to disrupt it. To set specific absolute targets, a specific reduction pace and an action plans monitoring process are important so that a sector-wide decarbonisation can be supported (Hoolohan et al 2021). Generating consciousness about the need to manage our impacts, publicly sharing changes in policy as part of our collective experiment to manage our impacts, developing systems that allow academics to become more effective and efficient at doing their jobs in a less carbon intensive way, the need for substantive changes in how institutions reward academics with tenure and promotion, or how academics share their knowledge with peers (Higham & Font 2020) can be seen as ways to change high carbon practices and to disrupt the need to use them.

Reducing GHG emissions related to air travel can therefore be approached in three different ways. Changing the mean of transportation or reducing flights, changing the way

conferences (or lectures, other kinds of gatherings) are held and understanding and disrupting the system behind high carbon practices would be the main categories we established during our literature review.

Social aspects of flying in academia

While we can agree on the importance of reducing emissions wherever possible, the social dimension of academic air travel should not be disregarded. Flying to attend conferences, to hold lectures or to conduct research is by many seen as a crucial part of academic success (Kreil 2021). Networking, career development and research are a few of the many other reasons academics take the chance to travel to distant locations all over the world and reducing travel could have an adverse effect on these abilities (Kreil 2021). The apparent demand to travel nationally and internationally to meet institutional expectations and to be 'seen' add to the scepticism about reducing traveling (Nursey-Bray et al 2019). For locations such as Australia to counteract the effects of remoteness plays a major role in their need for air travel (Glover et al 2019).

But other voices also see an emission reduction as a possibility for example more credibility, more local connections and equality in the field, more time for research and reflection and engagement with students (Kreil 2021). A reduction of travels would also mean an increase in online conferences that would give those who are unable to attend otherwise due to personal or financial reasons more accessibility and it would be a step toward levelling the inequities and injustices of access (Niner & Wassermann 2021). Conferences with online and in-person options show that remote attendees can achieve their goals of learning about research and to connect with others. Beside that the option to choose between online and in-person participation is highly valued (Le et al 2020).

A study shows that academic productivity and success does not depend on or correlate with air travel emissions (Wynes et al 2019). This implies that the before mentioned concerns about reducing (air) traveling would not prove to be justifiable. The same study shows no relationship between air travel and academic productivity but a relationship between salary and air travel (Wynes et al 2019). Combined with the findings that professors have a ten times higher footprint than PhD students (Ciers et al 2019) it becomes clear that high paid employees/professors travel the most. We could argue at this point who has the most need to travel and connect: researchers at the beginning of their career or well-established members of the academic world.

Even though the awareness of the negative impacts of flying exists among many academics, this knowledge does not lead to a change in behaviour - justified through the denial of control or responsibility or the compensation through benefits, the apparent necessity of air travel only contributes to it (Schrems & Upham 2020). Structural drivers of international travel (e. g., norms, status, professional pressures, and disposable income) may prevent the concern to manifest in behaviour change (Whitmarsh et al 2020). A similar logic can be applied to policy change at universities. Some universities ignore their impact, some do have the knowledge but don't act on it and the last group substitutes their air travel with more sustainable options (Glover et al 2018).

Crumley-Effinger and Torres-Olave (2021) acknowledge the role of universities and their part of the hypermobility problem but they want to show that universities are a part of the solution as well: collaboration, international knowledge and educational exchange are required to respond to the world's problems (such as pandemics and climate change) and the cooperation among universities worldwide will play a major role.

In the end the fact that air travel is embedded in the academic system demands institutional changes (Kreil 2021).

Both aspects are relevant for our further steps. Especially suggestions on how to reduce flight emissions in academia will help us design an own proposition for the Institute of Sociology at the University of Vienna. Nevertheless, the social reasons for flying at the Institute are not to be underrated. We need an understanding of the mechanisms behind them as well.

It was noticeable that we did not find any studies on air mobility conducted in the global south. This could have numerous reasons. Higher educational institutions in the global south often have lesser funding and means to fly to conferences or give international lectures in person.

The small body of research on sustainability on air travel in the university sector we found until now points towards a low level of policy engagement and interest in transforming their main choice of mobility in a sustainable way by higher educational institutions. But seeing that all our references got published in recent years shows growing interest and increasing research about sustainability in the mobility sector at universities.

4. Case Study

4.1. University of Vienna /Institute of Sociology

The Case Study is the University of Vienna. We started out the Case Study by doing some research on the website of the University of Vienna. We could not find anything relevant for this report. There are no current environmental guidelines nor future policy goals or measures to be found on the university's website. We then decided to focus on the catalogue of measures ("Maßnahmenkatalog") of the Institute of Sociology's sustainability project "Going Green", of which this course is part of. The project outlines a ton of operational goals for the different sectors of Infrastructure, Teaching, Research, Third Mission and Organizational Culture. The relevant operational goal for this report is "Reduce business trips by airplane" ("B3: Dienstreisen per Flugverkehr reduzieren"), which is supplemented by four specific ideas of measures. Them being:

- Disclosure of the institute's annual flight activities.
- Travel allowance: Preferential if travel is more CO2-neutral.
- Applications for exemption: consideration of longer travel times for night train journeys.
- Uniform CO2 compensation payments for unavoidable flights.

Analysing the studies that we found on the topic of air travel and universities, it is worth noting that GHG emissions caused by the institute's plane travel activity seem to be an area of concern for many educational institutions around the world. Of course, the advantage of our university is that it is located in the centre of Europe, which makes it possible to use trains more often, unlike, for example, universities in Australia, which pretty much are dependent on air travel for international trips. Although it is impossible to totally eliminate air travel of university employees, the Going Green program provides tools to help manage it.

Transparency is an important factor for sustainable development programs. That is why disclosing the institute's annual flying operations is one of the first stages in the Going Green initiative. The institute will release information on annual flight activity, including the amount, distance, and total emissions. This data will be incorporated into the sustainability report. It is important to set goals for the coming year and track the impact of individual measures using this information.

The next phase is to keep track of how many business trips are taken. Travel allowance will more likely be granted, if the trip is more CO2 neutral. Requests for short trips will only be allowed if they are taken by train, according to the "no-fly policy." Similar programs have been established at the University of Antwerp in Belgium and the University of Concordia in Canada.

In addition to trip control, it is also necessary to provide compensation payments for CO2 emissions for inevitable air travel. BOKU has started a similar program which compensated over 40.000 Tons of CO2 in the years 2012-2019.

To determine whether or not the proposed measures of the institute of sociology are adequate to reduce GHG emissions we compared the measures with the measures we found in the literature review. The review showed us that there are two main aspects to consider when trying to reduce flights in academia. On the one hand there are specific measures to reduce flights on the other hand social aspects of reasons to fly or to reduce flights are not to be dismissed. The catalogue of measures of the institute focused only on actual measures that can be executed in a shorter time frame. In the following we will compare mainly these aspects.

The SLR revealed many measures on how to reduce flights in academia. The main aspect is changing transportation. From all the presented measures the catalogue of the institute only mentioned a few. "Air travel budget restriction" and the "prohibition of domestic flights" can be allocated to "Travel allowance: Preferential if travel is more CO2-neutral". The catalogue doesn't mention a budget restriction per se but it does mean that more CO2-neutral travel is preferred to flights. In addition, it includes that short distance travel is only permitted by train. When revising the measures, a restricted air travel budget should be given a thought. The rule about short distance travel is part of a "Flying less Policy". This policy is yet to be established.

The institute wants to promote sustainable forms of mobility. The catalogue mentions them specifically as a local measure. Aspects like "encouraging ground-based travel" and "forcing train traveling" of the SLR fall more into the "Travel allowance" measure of the institute. This measure includes way more than travel allowance so establishing a new or different category should be considered.

The last measure that is also mentioned in the catalogue is an "action plans monitoring process". It fits into the "Disclosure of the institute's annual flight activities" measure that is a major part of the catalogue. But the institute's measure is only a first step. Based on this an action plan is supposed to be developed. Including the monitoring of this future action plan should be added to the catalogue.

The SLR showed that the measures of the institute that are mentioned in the literature have to be improved but many aren't mentioned at all. At this point we have to consider that the institute just started this pilot project and that gaps are to be expected. We still want to show what exactly is missing and what measures have to be included or at least given a thought.

To develop a detailed action plan based on the findings of the annual flight activities as planned is important. Setting specific targets and monitoring the whole process has to be part of the plan as well as more detailed measures for flight reduction. These measures can be included in the "Flying less policy".

As mentioned before the catalogue concentrates only on specific measures but it neglects to include understanding the social and institutional aspects of why flying is such a major part of academia. Changing conferences, teaching, research and the ways to develop an academic career in a way that makes flying unnecessary should be given a thought as well. This part cannot be done by one single institute but it should not be forgotten. Presenting ideas about changing academia itself and implementing these at university level at best could initiate a change in other universities.

The last point to be considered is transparency. Publicly sharing changes in the institute's policy towards more sustainability is an important part of our collective experiment to manage our impacts.

SLR measures - reducing flight emissions	Measures of the institute (infrastructure)
Changing transportation	THG Bilanzierung
replacing business and first class with3 economy	increasing energy efficiency
replacing short continental flights and connecting flights below 800km	
avoiding layovers	Reducing flights
replacing all indirect with direct flights	disclosure of annual flight activities
air travel budget restriction	more travel allowance for more CO2 neutral travel
encouraging ground-based travel	application of exemption: consideration of longer train travel
reduce or combine less important trips	monetary CO2 compensation for necessary flights
force train traveling	
prohibition of domestic flights	Promoting sustainable forms of mobility
reduction of 1-2 day trips	promoting bicycles: infrastructure, repairs
standardizing emission calculators	financial grants for ÖVPN tickets

more short than long distance travel	infrastructure for e-mobility
Changing conferences	
alternating in-person and online conferences	
offering hybrid in-person/online conference	
decentralizing the conference with multiple conference	
venues	
Disrupt the system	
setting specific absolute targets	
action plans monitoring process	
generating consciousness about need to reduce GHG	
emissions	
publicly sharing changes in policy	
being more effective and efficient at doing their jobs in a	
less carbon intensive way	
changes in how institutions reward academics with tenure	
and promotion	
changes in how academics share their knowledge with	
peers	

In this table only the measures to reduce flight emissions are shown. We excluded the social aspects because they weren't mentioned in the institute's catalogue of measures at all. The measures highlighted in red show measures that are mentioned in the SLR and the catalogue of measures.

4.2. What do other universities do?

In this part of the report, we will try to outline the environmental programs, guidelines and or projects of 7 public universities in Austria (Bundesministerium für Bildung, Wissenschaft und Forschung). The information-gathering process entailed going through each of the universities websites and compiling relevant data in a table. We compiled more general data related to environmental sustainability, but focused our attention to sustainability related to mobility and specifically to air travel.

University of Klagenfurt (Alpen-Adria-Universität Klagenfurt)

In addition to the Division of Sustainable Energy Management, which deals with issues related to the market acceptance of renewable energy, as well as the promotion of energy-efficient behaviour, the Alpen-Adria university offers an Extension Program (32 ECTS) on Sustainable Development and Energy. Moreover, and quite notably, the university is implementing the management system *ECO Management and Audit Scheme (EMAS)*. EMAS

embeds a variation of environmental goals at the University including the reduction of resource use and a more environmentally friendly procurement. Ever since 2016 the University publishes a very detailed environmental report every year, in which they talk about key resource metrics (e.g., the amount of paper, water and power used), environmental goals and accomplishments. In the most recent report of 2020, all of their accomplishments of 2020 and goals for 2021 related to mobility are heavily focused and geared towards biking and public transportation.

No mention of air-travel was found.

University of Linz (Johannes Kepler Universität Linz)

The University of Linz houses the *Institute of Environmental Law*. This is the only of its kind in Austria. Besides offering various courses in *Environmental Law*, the institute's goal is to advance climate protection through interdisciplinary cooperation with other sciences such as ecology and environmental engineering. On the website, the University outlines environmental projects they are initiating and supporting. Amongst them there is one called "*Green Mobility at the JKU Campus*", which particularly sparked our interest. Yet the focus of this project lies on making biking to and from the campus a more attractive choice and cooperating with an electric rental car service.

Nothing regarding air-travel related emissions was tackled or mentioned.

University of Salzburg (Paris Lodron Universität Salzburg)

The Faculty of Natural Sciences offers a Bachelors program called Materials *and Sustainability*. The University of Salzburg seems to run a Sustainability Initiative called *PLUS Green Campus*, yet we could not find any further information on what exactly their operational goals are or how they plan to achieve those. In terms of mobility, in 2018, they published a post stating they will continue to lobby the city for better public transportation connections and continue to promote and incentivise cycling. The only concrete measure we could find, in this regard, was a service, which is being offered to employees of the university to rent cargo bikes. Interestingly, the Department of Psychology at the Paris Lodron University in 2020 published their own internal guidelines for CO2-reduction. Even though those guidelines are mere suggestions and not enforced, they cover relevant actions for this report. Instead of taking the car or the plane, the department suggests taking the train whenever possible. Moreover, they suggest combining academic related trips with personal visits of friends and family and to try to opt for direct-flights. They also bring up video-conferences, as an alternative for some trips.

University of Graz (Karl-Franzens-Universität Graz)

The Faculty of Environmental, Regional and Educational Sciences offers the Master's program Environmental System Sciences/Sustainability and Innovation Management. Just like the University of Klagenfurt, the University of Graz commits itself to the ECO Management and Audit Scheme (EMAS). The university has been granted the EMAS certificate and is therefore bound to maintain certain environmental standards. In the universities environmental report of 2020, the university, just like the University of Klagenfurt, outlines key metrics regarding resource use and environmental goals and accomplishments. These stated goals and accomplishments in the most recent report are mainly focused around biking and electric automobility, while one operational goal was to survey and collect data of environmental indicators regarding mobility of employees and students.

Air-travel yet again was not mentioned, except in the part of the report about the Faculty of Law, where they state that employees of the faculty can compensate for their air travel.

University of Innsbruck (Leopold-Franzens-Universität Innsbruck)

The University of Innsbruck does not seem to offer any courses and programs directly related to sustainability. They do offer three Master programs though, which could be considered to be related, but are not practically related. Them being Environmental Management of Mountain Areas, Ecology and Biodiversity & Geography: Global Change - Regional Sustainability. They also do not seem to have an office or department responsible for sustainability questions. In terms of mobility though, the University grants an employee discount for the bike rental system *Stadtrad Innsbruck* and a 100€ bonus when purchasing an annual public transport ticket. They also introduced guidelines for environmentally friendly travel, which went into effect on October 1st 2021, which apply for all employees and all trips, which are taken during work time. Exemptions can only be made on an individual basis and requires a justified reason. The general principles, which are to be applied to all potential travel, are the following two:

- a. if travel is not required and the use of online tools sufficient, the trip should be avoided
- b. if travel is required, the trip, if at all possible, should be combined with other appointments, errands and or possibly vacations

The guidelines regarding air travel include:

1. unnecessary stop-overs are to be avoided

2. cost-savings are not an acceptable criteria for choosing air transportation over train, costs for potentially required overnight stays are therefore also reimbursed.

3. short-distance trips by plane are not reimbursed. Short-distance trips include all locations in Austria and Switzerland, Munich, Frankfurt, Stuttgart, Strasbourg, Venice, Milan, Turin and Genoa.

4. if those destinations are approached in the course of a long-distance trip (stop-over), they are exempt, and are being reimbursed.

5. the university collects a *climate fee* ("Klimabeitrag") for every roundtrip taken by air. The fee is 10% of the ticket price, but at least $50 \in$. If a second trip is taken in the same year, the climate fee is 20% of the ticket price, but also at least $50 \in$. When more than two trips are taken within a year the same fees of 20% and or $50 \in$ apply.

University of Natural Resources and Life Sciences, Vienna (Universität für Bodenkultur Wien, BOKU)

The University of Natural Resources and Life Sciences, Vienna, or BOKU, offers a Bachelors and Master program in Environment and Bio-Resources Management and a PhD program called *Transition to Sustainability*. In 2010 the BOKU started the Center for Global Change and Sustainability ("Zentrum für Globalen Wandel und Nachhaltigkeit"), which today consists of 20 people. The goal of the center is, among other things, to support and initiate environmental projects and to promote internal and external networking in regards to all things sustainability. With the help of the Centre for Global Change and Sustainability the CO2-compensation system of BOKU was launched. One of the system's goals is to compensate for CO2 emissions emitted through air-travel. This system is not only targeted to BOKU employees, but also to their relatives, to companies and to private citizens.

The rector's office of BOKU approved 12 strategic goals in 2020 ("Strategische Nachhaltigkeitsziele 2019-24"), which were the end result of a participatory process. One of those goals is to revamp business trips and mobility of BOKUs employees in a sustainable fashion. Mobility being responsible for a big chunk of BOKUs CO2 emissions, the goal states, they want to educate their employees and students on the effects of mobility, and want to support alternative ways of doing or replacing mobility, for example through online conferences or reducing plane travel.

In BOKUs Environmental Report of 2020 ("BOKU Nachhaltigkeitsbericht 2020") they mention they are particularly proud of "BOKU Bikes", which allows employees and students of the University to buy bikes at a reduced rate. In regards to business trips, in order to make

them more sustainable, they are currently planning to work on and to introduce guidelines down the road. No current mandatory guidelines regarding air-travel are in place.

Vienna University of Economics and Business (Wirtschaftsuniversität Wien, WU)

The Vienna University of Economics and Business or WU does not offer any programs with a sustainability focus. They house the Centre for Sustainability Transformation and Responsibility, which is a networking platform for topics related to sustainability. There is also the Institute for Managing Sustainability, which aims to analyse the topic of sustainable development including fields ranging from sustainable consumption to Corporate Sustainability.

In WUs climate report of 2021 ("Unwelterklärung 2021 der Wirtschaftsuniversität Wien") measures and goals which the university is currently trying to implement or already succeeded in implementing are listed. Related to business trips, there are currently two measures in the process of implementation and one yet to be initiated. First is the reduction of CO2 emissions through the introduction of travel guidelines, second are CO2 compensation payments for business trips and thirdly is the goal to increase the number of online-users at events, classes and meetings and therefore decrease the need for mobility.

Summary/Table: Amongst all those universities mentioned above, the University of Innsbruck stands out the most. Innsbruck has specific guidelines regarding business trips. Those guidelines are, as it seems, mandatory and negotiable only on an individual basis following a justified reason. The Department of Psychology at the University of Salzburg also has travel guidelines, which are not enforced though and mere suggestions. The guidelines mentioned at the University of Innsbruck and Salzburg are overlapping with a lot of measures and ideas we found during our Systematic Literature Review. The University of Klagenfurt, Linz and Graz focused their mobility measures heavily on biking, public transportation and the use of electric cars. The Faculty of Law at the University of Graz and BOKU offer CO2 compensation payments for air-travel related emissions, whilst BOKU, just as the WU are currently working on their own guidelines regarding business trips.

	Institues/Offices/Divisions/Departments	Course/Programs	Climate reports	Concepts/Policies on Mobility	Policies on air travel	Allianz Nachhaltige Universitäten	EMAS-Zertifizierung
University of Klagenfurt	Division of Sustainable Energy Management	Extension Programm: Sustainable Developement and Energy	yes yes		no mentino of air travel	yes	yes
University of Linz	Institute of Environmental Law; Office of Sustainability at Rectorate	Various courses about Environmental Law	n/A	Campus project focuses on	no mention of air travel	yes	n/A
University of Salzburg	n/A	Bachelor Program: Materials & Sustainability	n/A	Cargo bike rental for employee	covering air travel as well	yes	n/A
University of Graz	n/A	MA Program: Environmental System Sciences / Sustainability and Innovation Management	yes	focus on biking and electric automobility	no mention of air travel, except of the Faculty of Law, where employees can compensate for air travel	yes	yes
University of Innsbruck		n/A		transport ticket	Extensive & mandatory guidelines for environmental friendly travel	yes	n/A
воко	Centre for Global Change and Sustainability	BA & MA Programs: Environment and Bio-Resources Management; PhD Program: Transition to Sustainability		electric automotibility (BOKU	guidelines for air travel are in the works & CO2 compensation offered	yes	n/A
WU	Center for Sustainability Transformation and Responsibility; Institute for Managing Sustainability	n/A	yes		CO2 compensation payments offered	yes	yes

5. Air Travel Emissions Calculation Methodology

In this part we will discuss the methodology we are going to apply to calculate the air emissions the University of Vienna has annually.

The first step in this process is to count the kilometres travelled in a year. Unfortunately, there is currently no university air travel report available to make a reasonable estimate. Therefore, we plan to request data from the Department of Sociology on staff travel that was authorized with a purchasing card or authorized through employee travel reimbursement. Based on this information, we will compile a flight report. First, using information about origins and destinations, the kilometres travelled by short, medium and long-haul flights will be classified. Second, flight classes will also be included in the report, as emissions vary significantly between economy class, business class and first-class travel. As a result, a detailed datasheet should include the following information: individuals' connection to the institution (employees, students, and faculty), origin and destination, flight class, travel cost, and the trip's purpose (lectures, meeting, conferences, etc).

After the flight report is collected, we will analyse several footprint calculators and formulas to determine the appropriate method for measuring greenhouse gas emissions from

the Department of Sociology at the University of Vienna. Many institutions have created tools that can help businesses and universities quantify their emissions. For instance, BOKU has created its own website, which we mentioned earlier, where you can not only calculate the amount of CO2 emitted into the atmosphere, but also compensate for the damage with the help of several types of donations. The Bonneville Environmental Foundation Carbon Calculator and ICAO Carbon Emissions Calculator will be studied as well. We will research these methods, and perhaps narrow down to one option that will be most suitable for our faculty.

Bonneville Environmental Foundation

The Bonneville Environmental Foundation (BEF) is a non-profit organization dedicated to the research and implementation of new renewable energy resources as well as the restoration of watershed ecosystems. The organization began expanding its operations in 1999 to incorporate carbon footprint-related activities. Just a few years later in 2001 the organization developed an online BEF Carbon Calculator. The website included a brief summary of the impacts of air travel as well as a full explanation of their estimates (Bonneville Environmental Foundation).

International Civil Aviation Organization

The International Civil Aviation Organization (ICAO) is a specialized and funding agency of the United Nations. Its main function is "to support the administrative and expert bureaucracy (ICAO Secretariat) supporting these diplomatic interactions, as well as to study new air transport policies and standardization innovations". ICAO has established a system for calculating carbon dioxide emissions from air travel that can be used in offset programs. The Carbon Emissions Calculator (ICEC) "applies the best publicly available industry data to account for various factors such as aircraft types, route-specific data, passenger load factors, and cargo carried". The calculator takes as input several fields, such as airport codes, flight class and the number of passengers and calculates the corresponding carbon emissions in kg CO2 for the entire flight as well as per-passenger (International Civil Aviation Organization).

6. Analysis & Conclusion

The comparison of the measures we found in the Systematic Literature Review and the measures proposed by the Institute of Sociology clearly showed that the catalogue of measures

doesn't include all possible steps to reduce flight related emissions. The catalogue is definitely to be extended. After researching policies of other universities, it became even more evident that not only the Institute of Sociology but the University of Vienna as a whole has to increase their efforts towards sustainability, especially compared to other Austrian universities. However, there are a few paragraphs about the efforts the university is making to increase sustainability (intra.univie.ac.at/nachhaltigkeit/). We could find these mentions on the intranet for employees of the university, the public Website of the University doesn't show any policies towards sustainability. On this intern information we found out that the University is working on a strategy on sustainability for two years now and the rectorate introduced a strategy on sustainability in September 2021. The main goals are: climate neutrality until 2030, meeting the Sustainable Development Goals until 2030 in the areas of research, teaching, studying and administration, networking with other institutions to reach the climate goals and to raise public awareness. Furthermore, sustainability is connected with the responsibilities of the vice rector of infrastructure. The management of sustainability is supposed to be secured by a coordinator of sustainability, a sustainability team and an advisory council of sustainability. To implement the sustainability strategy a greenhouse gas balance is going to be compiled and updated regularly. A roadmap to define measures, determine milestones and set a timeline is going to be created as well. A very important starting point in this strategy - that is deeply connected to our research - is to reduce emissions connected to mobility, especially air travel. A document about sustainable business trips is linked on the website but we are not able to access it at this point. What we assume to be a compact version of this document is summarized on the website. They set certain rules when traveling is necessary:

- For all destinations in Austria or destinations that are within a six-hour travel distance the train has to be used.
- Traveling by train is an option even if flying is the cheaper option.
- 20% of the flight costs are to be paid additionally (but at least 50 Euro). These additional resources are going to be utilized for climate-protection measures and projects to enhance sustainability at the university.

Furthermore, they conducted a survey on mobility to collect data on staff and student related mobility and to collect suggestions on how to improve climate-friendly mobility.

All these measures and ideas are not publicly known. Even the knowledge about the survey on mobility is not public, only students and staff of the university were informed about

it. This poses the question why there are no public records about a strategy that was developed in a time period of two years.

Combining our findings within the Systematic Literature Review, the Catalogue of measures by the institute, the measures of other universities and the new policy of the University of Vienna it becomes clear that air travel policies are either not part of university action plans or they are rarely detailed. There are however several similar measures to be found. For example, avoiding unnecessary stop-overs, using the train - even when flying is cheaper - and using the train for all short distance trips. An action plans monitoring process is also proposed by different parties. But the measure to be mainly focused on seems to be CO2 compensation payments. Even though it was not a measure we found during our SLR, several universities, including the University of Vienna, proposed this approach. Sometimes it even was the only measure on sustainable mobility that was included. By highlighting only, the overlapping measures it becomes evident that the universities focus on a very narrow path to bring more sustainability into business trips. Our research proposed many different measures on how to tackle sustainable mobility. Especially the social aspects of flying in academia that we found during the SLR are disregarded by the universities. Focusing on monetary compensation shows the non-existent concern with the social component. Instead of just paying a certain additional percentage to the flight costs, the system behind flying in academia should be revised and solutions should be found to reduce flights or to even make business trips in general less necessary.

Summarized we have to consider which measures have the most impact on reducing emissions. We can't rely on action plans of other universities but have to revise all the measures we found during this semester to see what's reasonable and even possible at the institute to provide an elaborate plan at the end of next semester.

7. Outlook

In the following semester our main task will be to calculate the GHG emissions of the institute that were emitted due to business trips of the staff. To execute this task, we have to decide which way of calculating the emissions will be best. The chapter about calculating emissions in the report is just a first insight into this topic so we will have to deepen our research and decide in the next semester which way of calculating is going to work best given our knowledge and time frame. We are going to display the emitted GHG emissions in diagrams

showing the differences in transports used, destinations, kind of job and other categories we might find helpful. The information will hopefully indicate where the most emissions are able to be reduced. It was also suggested to do an interview with the head of the institute to investigate what measures to reduce business travel related emissions are even possible. After that we will decide which measures to select - of course in constant comparison with the measures of other universities - and propose them in our final report.

At the moment we focus on air travel of the staff and don't include students. Students rarely fly for university purposes but there is one occasion where university flights are also relevant for them: a semester abroad. The Erasmus plus program supports eco-friendly travel choices by giving a top up and a higher travel allowance. It could be worth it to check if this monetary support is enough to increase eco-friendly travel choices and if the institute or the university can support these efforts. This idea could exceed our timely resources but with around 3000 Erasmus spots at universities abroad it might be worth investigating.

Furthermore, reading the document on sustainable business trips by the University of Vienna will be another task to include. We have to review the measures, check on what basis they were constructed and compare them with the measures we found with the SLR and the measures of other Austrian Universities.

We hope to propose a plan of measures with a holistic approach at the end of next semester. Especially after studying the sustainable business trip plan of the University, we will know how to proceed.

Final Report - Part II

8. University development towards sustainability

After our case study in the first part of the final report it became clear that a general subsumption of the Austrian universities and their development towards sustainability was necessary.

The Alliance for Sustainable Universities shows the effort and the pace in which sustainability gets more important perfectly. The University of Graz and the University of Natural Resources and Life Sciences (BOKU) started this initiative in 2012 (nachhaltigeuniversitaeten.at). Over the last years 16 other universities became a part of the alliance. The University of Vienna just joined in 2021. That means 19 universities are part of the alliance at the moment showing that sustainability is a serious issue they want to address as a unit.

But there are also ways to accelerate and control the effort for more sustainability externally. One way is using EMAS. "EMAS" stands for "Eco-Management and Audit Scheme" and is a system that can be used by corporations and organisations to save resources e.g., energy consumption, waste and emissions (emas.de). People from outside the university manage and control if the set goals and requirements are met. At the moment only a few universities are using this scheme, for example the University of Graz. External support seems not as common yet even though it could help manage the efforts more effectively and give a new perspective on how to tackle certain issues.

As seen in this short overview the University of Vienna only recently decided to take the path towards more sustainability. However, our case study in the final report from February is outdated by now. Just after we finished the first part the university introduced new measures on sustainability. Therefore, we want to follow up on that in the second part of our report.

9. Updated Case Study

Environmental sustainability is the long-term maintenance of valuable natural resources in a society where people are evolving. We must consume fewer resources, produce less waste, and emit fewer emissions in order to have a more sustainable society. The

University of Vienna's strategic goals are oriented on sustainability, which is essential for the future. Our university understands its potential to contribute to creating a sustainable environment for current and future generations. As a result, the university has been working hard over the past two years to make its operations more sustainable.

In September 2021, the administration decided on the main goals of the Sustainable Development Strategy and determined the further course of action.

The sustainable development strategy developed by the university can provide a glimpse into the range of current and future sustainability activities. In addition, the strategy will help determine the goals and measures aimed at their implementation. The plan was created while considering many viewpoints (teaching and general university staff, as well as student representatives). The Sustainable Development Strategy has also benefited from the contributions of numerous networks at the regional, national, and international levels (https://intra.univie.ac.at/en/sustainability/).

9.1. Goals and guidelines of the Sustainable Development Strategy

- The University of Vienna contributes to the achievement of the climate goals of the Republic of Austria and the European Union and aims to achieve climate neutrality by 2030.
- The University of Vienna contributes to sustainable development in all areas of its activities: research, teaching, learning and administration contribute to the achievement of the UN Sustainable Development Goals by the end of 2030.
- The University of Vienna collaborates in networks with other institutions at the regional, national and international levels to ensure sustainability and achieve climate goals.
- The University of Vienna contributes to raising public awareness through knowledge transfer and communication activities targeted at target groups.

9.2. Putting the Sustainable Development Strategy into Practice

The following initiatives have been carried out at the University since the autumn of 2021 to implement the Sustainable Development Strategy:

• The University of Vienna is getting ready for a greenhouse gas balancing. This greenhouse gas balance will consider data on resource use as well as transportation

and energy consumption. Planning for sustainability measures and assessing their efficacy are both based on an up-to-date greenhouse gas balance.

- To accomplish the objectives, a roadmap will be established. This roadmap outlines the steps that must be taken in every aspect of the university, as well as dates and milestones. It introduces additional measures, gives an overview of the ones already in place, and outlines a strategy for their implementation.
- A major contributor to lowering universities' carbon footprint is mobility, particularly air travel. In order to determine the university's current mobility carbon footprint, the University of Vienna is now conducting mobility research.

9.3. Cornerstones of more sustainable business trips

The university's administration has identified the fundamentals for more environmentally friendly business travel because mobility is thought to be a crucial component in lowering the university's greenhouse gas emissions and reaching climate neutrality by 2030. Employees who are arranging a business trip are urged to think about whether the trip is truly necessary in terms of its intended purpose or if a video conference would suffice.

They take effect in November 2021 and include the following:

- The university advises taking the train for business trips to locations in Austria and those that can be reached in less than six hours.
- In the event that flying is more affordable, employees may also decide to use the train.
- For flights, an additional 20% of the cost of the flight (minimum €50) will be charged from the accountable cost centre. This does not apply to business trips financed by third-party funded projects without overheads as well as to travel allowances.

Additional debit funds will be used by the University of Vienna for projects that specifically protect the environment and advance sustainable development on campus (<u>https://intra.univie.ac.at/en/sustainability/</u>).

10. Interviews

One of the important parts of our research was interviews with people directly involved in sustainable development at universities. It was important for us to learn more about how decisions are made regarding the rules at the university and what are the plans for sustainable development. During this academic year, we conducted three interviews. Two of which were with employees of the University of Vienna and one with an employee of the University of Innsbruck. Since we conducted our interviews qualitatively, we were able to elicit the best responses from the respondents because we were interested in hearing and comprehending what they had to say.

As part of our research project, we had been working out, among other things, travel guidelines for the Institute of Sociology, which may also be of general interest to the University of Vienna. We were particularly curious about how other universities in Austria implemented sustainable policies because of this. Comparing other Austrian universities, we found that the University of Innsbruck has by far the most detailed list of rules (https://www.uibk.ac.at/universitaet/mitteilungsblatt/2021-2022/01/mitteil.pdf). That is why we decided to have an interview with a person who is responsible for implementing these guidelines.

An employee of the University of Innsbruck (hereinafter referred to as R) said that the rules aimed at reducing CO2 emissions came into force in June last year, but until the fall of 2021 they were not mandatory, as the university accepted proposals from other people. They also wanted to introduce this policy in stages so that it would not be too strict for university employees. However, many people found themselves dissatisfied with this list of rules (Transcript 1, lines 79-84). But despite this, the University of Innsbruck has introduced mandatory business travel rules that everyone must now adhere to. When conducting an interview with an employee of our university (hereinafter referred to as X), we noticed that this is the main difference from the rules of our university. X explained to us that although the rules went into effect last November, they are not mandatory, but rather serve as recommendations.

"Nicht Richtlinien, sondern Empfehlungen für Nachhaltige Dienstreisen. Sind November 2021 in Kraft, wurden im Oktober beschlossen. Flugabgabe ist ab Januar 2022 gültig" (Transcript 3, lines 56-57).

One of the important points in the sustainable policy of the University of Innsbruck is that they wrote in the report of the cities that are not recommended to go by plane. That is, they rely not only on the time spent on travel, but also on locations. R said that this list of cities was not a random selection, but was derived from analysis of travel records (Transcript 1, lines 56-59).

There are many points that both universities agree upon when making recommendations, and they largely discuss the same set of guidelines. For instance, they both first point out that before taking a business trip, you should consider whether it is necessary and whether you can participate in it remotely. Additionally, a minimum of 50 euros or 20 percent of each business trip made by plane is withheld in both situations. R, however, also informed us that after the implementation of these regulations, they made the decision to make a minor modification, which is that only 10% of the first trip of the calendar year is deducted. This choice was made in the PHD students' best interests because they travel less frequently than professors and have smaller travel budgets (Transcript 1, lines 115-117). Both universities support train travel regardless of price. The third interviewed person (hereinafter referred to as K), who is also an employee of the University of Vienna, noted the importance of reimbursing the amount of more comfortable trains, especially sleeping wagons.

"Machen wir den Leuten die Bahnreisen schmackhaft, und aber nehmen wir in Kauf, dass es teurer ist und zahlen ein Schlafabteil" (Transcript 2, lines 53-55).

An important point that we managed to discuss during our two interviews, since the news about this came out recently, is the climate ticket. K thinks it would be really nice if the income from the climate contribution would be used to pay for the climate ticket (Transcript 2, lines 78-79). At the same time, R explained to us that the University of Innsbruck already has a system for refunding money for a ticket, in the amount of 100 euros. Although it is not indicated anywhere that this money is used to cover the climate ticket, rather it is valid for public transport tickets (Transcript 1, lines 483-487).

In his interview, R also talks about the importance of reducing short flights and switching to trains. Although long flights generate more greenhouse gas emissions, they are almost impossible to avoid compared to flights within Europe.

"And then now I mean with long distance flying, which is of course by far the biggest part of the emissions from travel, that if you need to go to the US, I mean, it's unrealistic to say well you go by ship, so you can only say you either go or you don't. Whereas with the shorter distances you can say OK, well that's definitely possible to go by train to Vienna or to Zurich, or to Milano. So yeah, we try to do something very realistically, so that's why in the end it was settled on this 6 1/2 hours" (Transcript 1, lines 92-98). Six-hour train rides are also included in the guidelines of the University of Vienna. As X told us, this time is the most convenient in relation to university employees. However, in our view, there is a possibility to increase this timeframe. That is why we created our own list of suggestions regarding travel policy at the Department of Sociology.

11. Travel Data Analysis

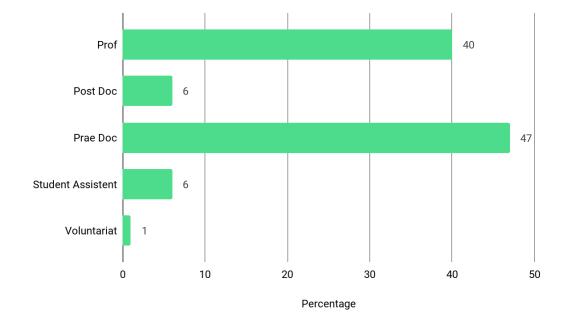
The Department of Sociology granted us access to the anonymized travel data of the employees of the department. This data contains every business trip the employees took by plane, train, car or bus in the years 2018 and 2019. The two separate excel sheets include the information on date, form of employment (Professor, Post Doc, Prae Doc, Student Assistants, Voluntary position), gender (male or female), starting point and destination, whether there was a layover and if yes in which city, the form of transport (plane, train car, bus), whether it was economy or business class, the cost and the kind of budget (global budget, Berufungsmittel, third-party funds). The most important categories posed the form of transport for a general overview and the starting point and destination to calculate the emissions. Our main goal was to identify the number of emissions and possible forms of reduction. Analysing the whole data set required two different approaches. To determine the emissions, we used the excel function to calculate sums but for any analysis of frequency we used an analysis software (SPSS) due to excel not providing that function.

For an easier presentation the analysis almost always refers to both years of data evaluation at once. Only in specific cases we are going to show the data for 2018 and 2019 separately.

11.1. Basic information (frequencies)

The data set provided the information on every category in full words. However, SPSS is not able to analyse frequencies with letters, it only works with numbers. Therefore, we recoded every category into numbers. For example, the category "Form of Transport" had the options "train", "plane", "car" or "bus". We assigned one number to every of these options. Hence our excel sheet did not show "train" for the form of transport but the number "1". "Plane" got changed into "2" and so forth. We completed this re-coding for every category. Only then we imported the data in the analysis software. 2018 there were 208 trips in total, 2019 only 156. This can be explained by a sociology conference in Canada in 2018 that required more trips compared to the following year where no such conference was held.

The most frequent people who travelled for the apartment were employed as Prae Docs. 47% of trips were taken by them. Only a bit less with 40% of trips were travelled by Professors. Post Docs and Student Assistants were responsible for 6% of business trips each. People with a voluntary position caused only 1% of all trips.

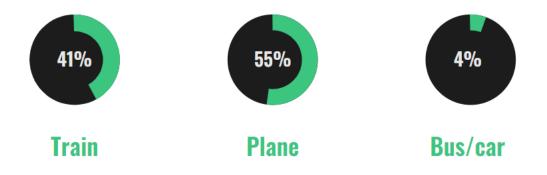


The gender distribution was divided into 70% and 30% in which women take the bigger part. This matches with the gender distribution of the department from 2019. We did not investigate if this proportional distribution was intentional or a mere coincidence.

10% of the trips were funded by the global budget, only 5% by the "Berufungsmittel" and 85% were third-party funds. As a quick insertion we do want to mention that exactly this last part is interesting for the 20% plane trip fee that was introduced by the university this spring. As we found out in one of our interviews the 20% fee applies for third-party funds not until 2023. Should this form of budget distribution be the normal case, the 20% fee would only apply to a marginal amount of trips in 2022.

In addition to the given categories, we decided to form a new one. We wanted to have an overview about the approximate distance of trips - without taking the form of transport into account. In this category we divided the trips into "national", "Europe", "international". 33% of all trips were within Austria, 54% outside of Austria but still in Europe and 13% outside of Europe. One of the measures we identified in the systematic literature review to reduce emissions was to only take economy seats as a smaller seat takes up less space and therefore allows more passengers to travel with the same means of transport. All of the trips were economy or second class. Thus, this measure is already being carried out, even unintentionally.

Probably the most interesting category was the form of transport. 41% of the trips were taken by train, 55% by plane and only 4% by bus or car.



11.2. Emission calculation

For the calculation of emissions, we only included train rides and plane trips as they were the biggest emitters.

Starting with the plane trips we decided to use the calculation system of the BOKU as they explained their way of calculating emissions more thoroughly than others and in addition, they had the most user-friendly website (see Website 1). Even layovers could be included as well as the travel class.

The calculation of emissions follows these steps (see Website 2):

- 1) distance
- 2) factor of detour (waiting loops, weather conditions)
- 3) Fuel consumption
- 4) CO2 emission
- 5) Emission per passenger
- 6) Climate effectiveness

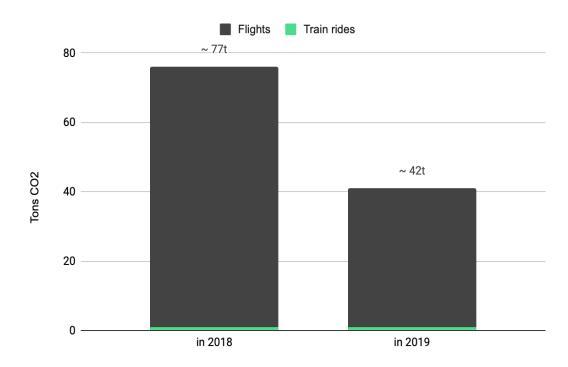
For the calculation of train ride emissions, we only found websites that calculated the emissions based on kilometres. Therefore, we had to determine the route in kilometres first before we could calculate the emissions. We were faced by the problem that no travel website states the route in kilometres, only the duration of the trip. Due to this reason we had to use

another website that focuses solely on the calculation of travel routes (see Website 3). To determine the route in kilometres we had to mark the starting point on a map and follow the rail tracks to the end point while marking the track along the way. To follow the correct route we looked it up on Google Maps first. We did this procedure for every train ride in 2018 and 2019.

The Transport and Environment Report 2021 of the European Environment Agency states that the average GHG emissions for one train passenger is 33g CO2 per kilometre (EEA report 2022). Based on that we multiplicated the earlier determined kilometres of every train ride with the factor 33.

As we wanted to categorise the length of the trips as well, we classified the trips into five different durations: 0-3h, 3-6h, 6-9h, 9-12h and over 12h. To determine the duration of flights as well as train trips we used flight and train websites such as ÖBB, DB and Skyscanner. We always chose the shortest option possible. This category plays an important role later in this report when we point out ways to reduce emissions.

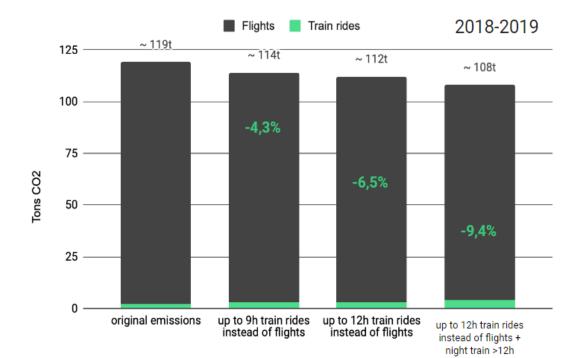
Using the calculation tool of excel we then calculated the emissions for both years for train rides and plane trips. In 2018 76 tons of CO2 were emitted by plane trips and only one ton by train rides. In 2019 also only one ton CO2 was emitted by train rides. But in this year the plane trips accounted for 41 tons of CO2. This adds up to a total of 119 tons CO2 for both years. To put this number into perspective: that equals 26 Olympic swimming pools full of carbon dioxide.



11.3. Potential of reducing emissions

Our goal did not only consist of showing past travel emissions. The measures found in the systematic literature review included forcing train travelling. To show exact numbers about the impact of replacing plane trips with train rides we used the provided travel data as a starting point. We calculated the emissions for every plane trip that could have been replaced by a twelve-hour train ride or a night train ride that takes longer than 12 hours. Exactly like before we categorised these fictitious train rides in duration of travel time. In the next step we calculated the emissions if instead of flights up to nine-hour train rides would have been taken. This resulted in an emission reduction of 4,3%. With the inclusion of up to twelve-hour train rides the reduction would comprise 6,5%. As a last step we included night train destinations that were reachable in over twelve hours as these trips do not include layovers. Taking these destinations also into account the reduction would be 9,4%.

The replacement of shorter flights with train rides did not have the impact we expected. The data of these two years show that even with forcing train rides up to twelve hours or sometimes even longer the most emissions are caused by oversea flights. Hence flights that cannot be replaced by train trips. Therefore, reducing long flights would be a more impactful approach.



12. Measures

In this last section of the report, we will go into the recommendations that we are proposing to be implemented either at the Institute of Sociology or at the University of Vienna as a whole. Those recommendations are the result of the accumulative work of our group in the past two semesters in the Research Practice: Social and environmental sustainability - Trade-offs and opportunities. The measures are based on the Systematic Literature Review and the Case Studies we conducted in the first semester and on the Interviews and the Analysis of the Mobility Data of the Institute of Sociology we pursued in the second semester.

We split our recommendations into three categories. The first category addresses merely short distance travel and restricted destinations (destinations that are not to be travelled to by plane). The second category lays out guidelines to follow when plane travel is unavoidable. And the last category addresses goodies the Institute or the University can offer, in order to increase acceptance within the staff for the proposed measures or to make the measures simply more bearable. In order to decrease CO2 emissions from business travel, the focus must be on either avoiding trips altogether, replacing plane trips with train trips or make plane trips more sustainable. This focus is based on the fact that air travel causes more emissions than train travel.

12.1. Restricted Destinations

Restricted destinations are destinations that should not be travelled to by plane, but always by train. This group of measures was inspired by the University of Innsbruck and also backed by literature we found (Ciers et al. 2019 & Kreil 2021). Innsbruck has a list of destinations that are not reimbursed if you approach them by plane. In essence, those destinations are prohibited to take the plane to, unless you are willing to pay for the expenses yourself. We also recommend such measures to be implemented at the University of Vienna or the Institute of Sociology. We divided those locations up into three groups.

12.1.1. Destinations in Austria

The first group of restricted destinations that we recommend are any destinations in Austria. Within Austria no travel should be done via air but always via train. At least at the Institute of Sociology destinations in Austria are already exclusively travelled by train, except for a few car trips. This is an easy and straightforward measure we would like to ideally see implemented throughout the whole University.

12.1.2. Destinations that can be reached by train in under 12 hours

The second group of destinations include all destinations that can be reached by train within a certain amount of travel time. Ideally, we would recommend to include all destinations that take up to 12 hours, since this would decrease emissions the most. As you see above we also calculated the emission reduction potential of the Institute of Sociology if merely trips up to 9 hours are included. The emission reduction potential would be 4,3% and 6,5% respectively.

We are aware that a twelve-hour train trip might be more draining and exhausting than a 2 hour plane trip. Nevertheless, we feel that if a train connection is available, it should be used. We believe 12 hours should be doable for most people, in particular since train travel, compared to other forms of transport, is usually seen as the most comfortable one. However, we definitely recommend for exemption criteria to be devised to exclude certain and specific situations.

As we already said we would ideally like to see the maximum of 12 hours to be implemented, yet we are aware this might be considered 'too radical' and or 'undoable'. 6 and 9 maximums are further options that can be considered. In any case, we recommend at least for some maximum train travel time to be implemented, also for the reason that once a measure like this is implemented, it could potentially be expanded in the future after an initial more lenient pilot phase.

Destinations that can be reached by train in under 12 hours from Vienna include, but are not limited to the following places: Aachen, Arad, Augsburg, Basel, Berlin, Bielefeld, Bologna, Bonn, Bratislava, Bremen, Brescia, Wrocław, Brno, Buchs SG, Budapest, České Budějovice, Chemnitz, Cluj Napoca, Conegliano, Debrecen, Desenzano, Dresden, Düsseldorf, Essen, Frankfurt, Frankfurt/Oder, Freiburg, Göttingen, Györ, Hannover, Karlsruhe, Koblenz, Constance, Krakow, Cologne, Leipzig, Ljubljana, Břeclav, Lugano, Magdeburg, Mainz, Mannheim, Maribor, Munich, Nuremberg, Oradea, Passau, Peschiera, Pordenone, Prague, Regensburg, Sargans, Siegen, Strasbourg, Stuttgart, Szolnok, Treviso, Udine, Ulm, Venice, Verona, Vicenza, Warsaw, Zagreb, Zurich.

12.1.3. Destinations that have a direct connection by night train and take more than 12 hours

The third and last group of destinations include places that take more than 12 hours to reach by train, yet offer a direct connection from Vienna, usually via ÖBB Nachtreisezüge. Those destinations include: Amsterdam, Arnhem, Brașov, Brussels, Bucharest, Florence, Hamburg, Kiev, Knin, Livorno, Liège, Lviv, Milan, Paris, Pisa, Rome, Split, Utrecht (see Website 4)

We recommend those trips to also be taken by train, yet they would possibly require additional exemption criteria, since some trips would take about 20 hours or more (e.g. Bucharest, Kiev).

Summing up the first category of measures:

Plane trips should only be reimbursed if all the following applies (exemption criteria need to be devised):

- the approached destination is not located in Austria
- the approached destination takes more than 12 hours to be reached by train
- the approached destination doesn't offer a direct train connection

12.2. Guidelines for plane travel

The second category of recommendations include measures to be applied to any and all plane trips. If destinations are approached that are not to be travelled to by train, we would like to see five specific measures implemented to make those plane trips more sustainable. It is also worth noting that at least at the Institute of Sociology - according to the Analysis of the Mobility Data - the flight trips that would take more than 12 hours to get to by train and don't have a night train connection available account for - by far - the most emissions caused by plane travel. That is the reason why measure one within the second category is most likely the most important and crucial of all.

12.2.1. Avoid trips altogether

We would advise to only take trips that are absolutely necessary and important, in particular if plane travel is the only doable form of travel. Oversea plane trips cause the most emissions and they should be avoided whenever possible. In order to determine necessity and or importance though we would implore the Institute or University to develop some sort of catalogue that lays out criteria. Another way to cut down on long plane trips, that cannot be replaced by train, would be to maybe decide on an oversea plane trip cap for the whole Institute or on an individual basis (e.g., an individual is only allowed to attend one oversea conference each year). If trips cannot be avoided the other four following measures should be followed.

12.2.2. Climate-fee

The collection of a climate fee is another way to make plane trips a bit more unattractive and provides the money for specific carbon reducing projects to offset emissions caused by the trip. The University of Innsbruck is already collecting such a fee and as of the time of writing the University of Vienna as well. Currently it is still unclear how the University of Vienna will be using the money, yet we recommend it to be used for effective carbon offsetting projects, either at the University level or at the Institutes themselves. Nevertheless, we believe the most effective way to use the collected money would be for the University rectorate to hold onto the money and to coordinate university wide projects in coordination with experts.

12.2.3. Direct flights

Another measure would be to avoid layovers. Trips with layovers - non direct flights - cause more emissions and it is therefore recommended to always choose direct flights (Ahonen et al. 2021 & Ciers et al. 2019). We therefore suggest whenever possible to only choose direct flights. If there are no direct connections available, depending on the trip, we would suggest to fly out from a destination from where there is one available and to travel there by train. This would also require devising some criteria of when such an endeavour is doable and or reasonable.

12.2.4. Economy-class

Having to choose economy-class over business-class should definitely always be done (Ciers et al. 2019). Business-class seats cause more emissions than economy-class seats since they take up more space on the airplane and are therefore accredited more emissions.

12.2.5. Combining trips

The last measure would be to always try to combine business trips with personal visits of friends and family and or vacations or errands (Williams & Love 2021). That way one won't need to take a roundtrip twice.

Summing up the second category of measures:

First of all, it is crucial to assess whether or not a trip is really necessary. Number one priority should always be to avoid trips whenever possible, in particular trips taken by plane. If the trip deems to be necessary the following measures or guidelines should always be applied:

- The collection of a climate fee
- Always choose direct flights whenever they are available (if there is none, consider taking the train to a destination where there is one)
- Always choose economy-class
- Always try to combine business with personal trips

12.3. Goodies

The third category of recommendations include measures that do not necessarily decrease CO2 emissions related to business trips, yet they serve the purpose to make the previously proposed measures more 'bearable' and to increase acceptance among the staff that are affected by those measures.

12.3.1. Austrian Klimaticket

One measure we propose is the subsidisation of the Austrian Klimaticket. If a staff member goes on a business trip within Austria by train and owns a Klimaticket, we suggest for the regular ticket price they would have had to pay to be paid back to them. Example: a professor owns a Klimaticket and is travelling to Innsbruck and to Graz within the year. The costs would have added up to approximately $150 \in$. The $150 \in$ should be paid back to them at the end of the year by providing the receipt of the Klimaticket, seat reservations or other necessary documents.

This specific measure might not result in a decrease of CO2 emissions directly, since, at least at the Institute of Sociology all travel within Austria in 2018 and 2019 was already done by train, but it might encourage some staff members to buy the Klimaticket, who otherwise would not have. This would result in the use of the Kliamticket in their personal free time and therefore possibly decrease emissions indirectly.

Another argument for the subsidisation, which stems from an interview we had, is that it only seems fair to people who bought the Klimaticket. Colleagues who didn't would be reimbursed for the trip as usual, but they themselves - people who bought the Klimaticket - would not be.

12.3.2. Sleeping Cabins

Another so-called goodie could be to pay for sleeping cabins on night trains whenever available. This would make the journey a bit more comfortable for the travellers.

12.3.3. Regular pay

When travelling we suggest there to be a clear payment structure in place. Is travel time being reimbursed? If so, to what degree? Since travel time will increase when implementing our measures, thoughts should be going into how to manage that pay. We recommend travel time to be considered regular working time, where travellers might not necessarily be expected to work though.

13. Conclusion

Throughout the past two semesters we did extensive work and research regarding the topic of business trips at universities, in particular in respect of sustainability. In the context of this report, we mainly focused on environmental sustainability - not social sustainability.

We tried to answer our research question by first conducting a Systematic Literature Review where we found various measures to be effective in reducing CO2 emissions of business trips. We then compiled all the measures that are already being pursued and or implemented in 7 other Austrian universities, where the University of Innsbruck definitely stood out.

In the second semester we conducted three interviews: one interview with a person from the University of Innsbruck, another one with a person from AGNIS and a third one with a person from the University of Vienna, who worked on the University of Vienna mobility guidelines.

The last step before we compiled our recommendations was the Analysis of the Mobility Data. The Mobility Data consisted of travel data from the Institute of Sociology from the years 2018 and 2019.

To our surprise, eliminating all short distance plane trips - trips that can be replaced by up to twelve-hour train trips and or 12+ hour night train trips - could only decrease all

business travel related emissions of the institute by 10%. Therefore, it would be far more effective to tackle all other flights. If there is only one thing you take from this report, it should be tackling longer distance plane trips, especially oversea trips. Nevertheless, this finding should not negate the importance in replacing short distance plane trips with the help of the proposed measures we provided above.

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Appendix

Three Interview Transcripts

- 1 Transcript 1
- 2

3 I: Interviewer

4 P: interviewed Person

5

6 I: Introduction. I'll start with the first question. How do you handle sustainable mobility7 at your university?

8

P: What do you mean? Like business, travel or? Because for business travel it's 9 actually like the I mean yeah well, I mean the first thing and it's difficult to say if this 10 works or not is that we are asking people to, I mean, first of all to think a bit if they 11 actually have to travel. If they have to go, like that's the first step, and then the second 12 step if they decide they are traveling to choose a sustainable option. Meaning ideally 13 14 train, or if it's closer, then public transport. And I think an important thing which is also 15 in our guidelines, but it hasn't gotten that much attention is that the university says you don't have to choose the cheapest option for travel. Because actually it often is a flight 16 17 or often you can, you know, present it in a way that the flight is cheaper than taking a 18 train. And the university says, well, we don't care. You can always take the train. I mean, of course, this only works, let's say mainly in Europe, Central Europe. But you 19 20 can always take the train. You can also take, for example, a night train, which can be quite expensive and you can also get the first class ticket in the train, at least. If you 21 sav I'm working on the train, the university will just pay it like that, and that's I mean 22 it's like a soft thing, but I think this is guite a good way to do it and then we have the 23 climate friendly travel policy, which means on the one hand you cannot fly to, I mean, 24 that's not true, of course you still can fly actually wherever you want, but the university 25 26 is not refunding your costs for trips you were flying to, destinations which are relatively 27 close to Innsbruck. I mean, we actually have like a comprehensive list of the locations, 28 but it is basically all locations in Austria. All locations in Switzerland and then southern 29 Germany and northern Italy, more or less. And we decided that on the basis of how long it usually takes to go there by train. And so if you can reach another city in 6 1/2 30 31 hours by train, then the university will not reimburse the costs for the flight. And this is 32 quite a bit different to Vienna because it means it's a small city and you only have direct flights to Vienna and Frankfurt. So nearly everywhere you fly, you fly Vienna first 33 and change planes or to Frankfurt. Or you take the train to Munich and then take a 34 35 direct flight. So let's say, the saving of time is not as much as you might think, because, let's say, we're talking about flying to, I don't know Venice or Geneva, there's no direct 36 37 flight, so you always take two flights and then you can say, well, it's the you don't actually lose much time by taking the train. 38

39

I: And do you have specific categories for these flights? You said that if the train triptakes less than six hours, it's...

- 42
- 43 P: 6 1/2 hours
- 44

- 45 I: So it's only till 6 1/2 hours?
- 46

P: Yes. So like, what would be a good example from here probably, I don't know, let's say Rome in Italy. That's still relatively easy to reach, the direct trains, the night trains.
But it takes much longer than 6 1/2 hours, probably it takes, if you have an ideal connection, it probably takes 7 hours, probably a bit more, but so then we say it's OK to fly. Then you can fly to Rome. It's no problem. But then to Milano, which is in the north and is much closer and faster to reach by train, then you have to take the train.

- 54 I: Is it written in your guidelines? The specific amount of time?
- 55

P: No, no, it's actually not because actually the cities are written there. So in the
guidelines it says you cannot fly anywhere in Austria, anywhere in Switzerland and not
to, I don't know, Munich, Stuttgart, Frankfurt and so on in Germany and Milano, Venice,
Genoa.

60

61 I: All flights and train trips are funded only by the university or you have also special62 projects that fund these trips.

63

P: Oh no. I mean, of course, a large part is paid by third party funding. So project money, I mean that the policy is for all flights or for all travel, doesn't matter if it's university budget then actually budget in the departments or faculties, institutes or if it's funded projects or even if it's, let's say the University of Innsbruck invites someone to come and to give the presentation. As long as the university pays for the trip, the plane ticket, then the rules are applied.

70

71 I: How were these travel guidelines chosen and implemented?

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73 P: Well, I think that the draft for them was already written before I came here. I started at my job here a bit more than a year ago. And so I think in the end, like the directorate 74 75 said, OK, we want to have like let's say, a more climate friendly travel policy and 76 Theresa, one of my colleagues actually wrote it and then presented it to the rectorate 77 and they actually, that that was when I just came here and they just said yeah, great 78 we're going to do this, so actually there was not much going back and forth. Of course 79 then there were some issues. For example, many people, I mean guite a few people, don't like it, surprisingly, at least to me. The main problem for many people seems to 80 be the flights to Vienna. So I mean Vienna is the capital, it's important, we really have 81 82 a lot of trips to Vienna. And some people fly. Most people take the train anyways, but some people used to fly to Vienna. Around 40-50 flights per year probably, and they 83 can't do it anymore. So now they were kind of unhappy. And also I mean there was, 84 85 there's always a university like you, so of course internationalization, going to conferences, meeting project partners, basically all over the world are very important. 86 87 And I mean they are of course also a strategic goal of the university and also that the 88 university has to be international. They have to be partners and so it's kind of difficult

89 to say how you act in this? On the one hand you want, I mean, also students to go abroad. You want your researchers to go to conferences, to exchange with colleagues. 90 But then on the other hand, I mean business travel, especially flying, is a big part of 91 the emissions of a university. So you think about what you can actually do? And then 92 93 now I mean with long distance flying, which is of course by far the biggest part of the 94 emissions from travel, that if you need to go to the US, I mean, it's unrealistic to say well you go by ship, so you can only say you either go or you don't. Whereas with the 95 shorter distances you can say OK, well that's definitely possible to go by train to Vienna 96 or to Zurich, or to Milano. So yeah, we try to do something very realistically, so that's 97 why in the end it was settled on this 6 1/2 hours. Well, in my opinion you could do 98 more. I mean, I know other organizations, not universities. Which are pretty strict and 99 they say like it's 10 hours. This does then get really long because for example, if you 100 then need to go to Northern Germany, you need to spend like one full day on the train 101 102 to go there and come back. Which of course, on the other hand, then also makes you 103 think, well, do I really need to go there? But then that was seen as, let's say you don't 104 want to cut back on that internationalization, exchange conferences and so much, 105 because of course then people might start not going. And that's also difficult. So that's 106 why in the end, like it was those 6 1/2 hours. I mean there were some iterations and 107 changes for example. Also like we have this Klimabeitrag, this climate fee which is actually 20% of the flight price and then I mean ideally in my opinion it shouldn't be 108 connected to the price but it should be connected to the CO2 emissions. Which isn't. 109 110 I mean, this was decided because, well, for administrative reasons that people said 111 it's easier to actually work with this and then somehow this might be prohibitive or 112 might be very expensive, especially for young researchers. I don't know, they might want to go to a conference in California and the flight is guite expensive and then they 113 114 need to pay an additional 20%. And that's why this, for example, was then before the 115 guidelines came into effect, for your first flight in the calendar year it's 10%, and for all 116 other flights 20%, because in the end there's actually very few people who really fly a 117 lot. And relatively many people who rarely fly or nearly never fly, so then for them, especially the ones you know with the small budget normally PhD students, younger 118 119 researchers, they say, well, they should pay something, so that's 10% and then if they 120 fly only once or twice a year, that really makes it a bit cheaper for them, whereas the 121 ones who fly I don't know, 25 times a year there's also guite little effect if there's one 122 trick where they only pay 10%.

123

124 I: Why exactly 10% and 20% were chosen?

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P: Well, in the beginning it was only 20% and I think it was basically because it's like
let's say a realistic amount, so the idea was that it's high enough that people actually
see it in their travel budget and on the other hand, it's not that high, so that you
basically completely changed their travel budget. If you would have said, well it's 50%,
I mean yeah, and I don't know if you know it, but it's minimum €50 always, because
especially, you know the very cheap flights which you're really easy to take they might
cost €50 for the flight. So as long as your flight costs are below €500, which is of course

the case for many flights within Europe. If you book them early enough, the fees are
always €50, so it's never like €5 or €10. In my opinion this is more like let's say, it's not
really like something to offset the emissions, but to make people think a bit if they really
have to fly.

137

138 I: So you say that one of the main reasons is to make people double think when they
139 go somewhere, so they need to pay this 10 or 20% on the flights, but was there also
140 another reason to put this percentage?

141

142 P: Actually I don't think so, but I don't know. I think there wasn't that much. I think it 143 wasn't really discussed that much, I mean, the idea was I mean of course also to put 144 a price on, especially the very cheap flights, because often I mean as I said in the beginning, we say it's OK for people to take a train even if it costs more. But still people 145 146 with, let's say limited travel budget, can still of course decide to take a very cheap 147 flight. And then of course, if you say well, but on the flight you have to pay like an 148 additional €50, then maybe some people are choosing the train. But I mean, this is 149 highly theoretical, of course.

150

151 I: Is this fee funded also by the university or the projects, or do people pay themselves? P: No, no, the people don't pay themselves. It has to come from their travel budget. 152 So either the project for their department or it's like you don't have to pay for it from 153 154 the same project or same account, but it has to be paid. So let's say I'm flying to New York because I have a research project where I cooperate with people in New York, 155 156 but I don't have much money in my project account, so I can, let's say pay the flight 157 from my project, but I could, for example, ask my department to cover the climate fee. 158 But it has to be paid by some university account.

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- 160 I: And where do these fees go?
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162 P: Well, as I said, we only started with this in October and at the moment they are just 163 collected in one account for this purpose. And in the end it's agreed that they will be 164 used for measures to make the University of Innsbruck more sustainable, which is a 165 relatively soft thing, but there hasn't been much trouble in the winter, so the last time I checked I don't have access to this account, but there was very little money on it, but 166 167 it's been a while since I checked. Now in the last two months I think travel has been picking up quite a bit here due to COVID. There was a bit of business travel in fall, 168 because in October at the beginning of November we were allowed to travel, but then 169 170 from the lockdown in mid November until I think the end of February, there was no 171 trouble because the university said, well, it's COVID, stay at home. So actually there 172 was very little travel and very little flying. And it also takes a while to get the money to this account, because let's say I, which is purely imaginary, fly somewhere at the 173 beginning of March, then I come back and I collect all my receipts, send them to our 174 175 travel department. They check them. And then I get my money refunded. But maybe 176 I'm handing them in a month later or maybe two months or so. So this takes a lot of 177 time. And this is only once a month actually processed. So until the money is collected 178 in our account, that might be several months after the trip was actually taken. So until 179 now there might have been the money from the flights which were taken until the end of February, beginning of March, which were very few. So that's why at the moment 180 181 we also haven't done anything with that money because they're so little. But the idea 182 is we have a sustainability board at our university. And they are then supposed to suggest projects which we can do with the money collected from that climate fee. But 183 184 we are going to have a meeting at the end of June and that's going to be the first time 185 we will actually discuss that because until then, we will be able to see OK like there are a couple of €1000 collected and then you could start implementing something, 186 187 probably in the fall, but it's really like I mean on the one hand it makes it easier to introduce such a policy because they're basically was no or very little business travel 188 during the last two years. But also, you don't even know how it works or anything, 189 190 because even in this winter there was nearly no trouble.

191

192 I: But in your idea you are going to spend this money within the university, right?193

194 P: Probably yes. I'm quite sure, I mean things can change, but I'm quite sure that it be 195 spent within the university. And this is maybe also important, we don't pay an external offset of emissions. This is due to a variety of reasons, but one of them is that, for 196 some money, we simply cannot do it. Because let's say that the funding agencies who 197 198 fund projects like research projects, some of them by now would actually accept this, but some don't. So this makes it quite complicated, maybe not, probably, maybe not 199 200 impossible, but that's why we decided it's collected at the university and then it's used 201 for projects, increasing the sustainability. I mean, there have been some suggestions, 202 but they're really not haven't been discussed, haven't been decided so.

203

I: I know that some of the airlines have this kind of feature, whenever you buy tickets
you can spend one or two euros for CO2 emissions. Do the projects or maybe the
university also pay for this?

207

P: No. I mean everyone can click it, if he books his travel. Maybe first of all, it depends,
but usually this is very cheap, so it's not really a proper offset in my opinion. And then
we are not advocating this. We are also not paying for this. I mean, sometimes people
might smuggle it into their travel receipts and then it might get reimbursed. But the
main issue is here that some funding agencies are not reimbursing those costs. So
even if the university pays it and the funding agency checks the receipts, they will not
reimburse the university for it.

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- 216 I: But the 20% is the mandatory amount to pay for the funding agencies, isn't it?
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- 218 P: Yes.
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- I: And how were these guidelines implemented? Was it step by step or were they just...

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222 P: Well yes, I mean it was step by step so to say. So I mean we published it in June last year and said that we want to do this, the university wants to establish that, you 223 224 can give us your feedback and so on. There were a lot of people who were unhappy. 225 Then there were some minor changes, for example, that your first flight, it's, let's say, 226 10%. Also, for example, there is a thing because the travel guidelines don't only deal 227 with flying. We talked about the flying part, but there's also that part which basically 228 restricts travel by car. So you're not supposed to travel anymore by car if you don't really save a lot of time in comparison to public transport. Some things were clarified 229 here, you know for people with disabilities, people who had to transport gear, which 230 231 we have a lot for researchers to go to the mountains to do their measurements. And then actually the travel policy was introduced for a couple of months, but not really 232 233 enforced. So we said, OK, that's the new policy. That's what you're supposed to do, 234 and if you're, for example, you were not supposed to drive your car, let's say to Kufstein 235 because the car actually takes longer than the train. Or you were not supposed to take flights to Vienna anymore. But if people did like we say OK. Doesn't matter, they get 236 237 the money refunded, but they all got an email from the travel department saying, here 238 are our new climate friendly travel guidelines, please check them, at the moment we 239 are not enforcing them but starting from October 1st your flight to Vienna would not be reimbursed. So quite probably not very many people were following those travel 240 241 guidelines in that phase, so in August, September, but then they got a reminder and it was clear, OK, that the guidelines are there. 242

243

244 I: And what were other difficulties implementing the guidelines?

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246 P: Well, I mean administratively, it was not very difficult, but guite a lot of work, because 247 for example you have to find a way to first calculate. Someone has to check if the 248 people follow the guidelines. I mean this is clear because at the moment before there 249 were other travel guidelines which also needed to be followed, but the people in the travel management department needed the training or the new guidelines. Then we 250 251 have, I don't know how this works in Vienna, but for example our university has its own 252 online system, where you do all kinds of things, you book your rooms at the university, there's time keeping system, there's calendar also, there's lots of things, and there is 253 254 also where you get your OK for traveling from your boss, for example. And where you 255 then in the later step also hand in your receipts. And so I mean they had to change, this had to be made there, because for example, like in the beginning, like you needed 256 to see, OK well, if you select I'm flying to somewhere that says, well, if you fly you need 257 to pay the climate fee of 10 or 20%, for example. Because at some point someone has 258 259 to sign off your travel expenses, either your boss or the person who is the principal 260 investigator on a funded project and so of course on that paper or that file which gets signed off the final amount has to be signed off, so the climate fee had to be included. 261 There were of course also changes in how this is all generated online, to see that the 262 263 correct amount shows up there. That sounds easier than it actually was. It was quite 264 a bit of work behind. Also, you know our financial department, our controlling 265 department had to know how to book that in their accounting. Then we had to ask all the funding agencies if that's OK for them or how to solve this? And there are a lot of 266 267 funding agencies and we didn't ask all of them because there are so many, but all the bigger ones. Then I mean there were other things, like for example if there were any 268 269 implications regarding taxes so the financial department was talking with the tax 270 consultant then also with the auditor of the University. Because we're a public body, 271 the university gets audited and I mean it's kind of a weird flow of money if you collect it from the projects, put it in the big account, use it for something else. Those things 272 had to be checked if that's OK, and how this is done so that, like the auditor can still 273 274 follow the spending of the money and so on.

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I: What do you think about the idea of the traveler personally paying for this fee?

278 P: Well, I don't think it's really possible because if it's associated with travel you do for 279 work. I mean, I'm not a lawyer, but I don't think you as the employer can actually force 280 your employees to privately pay for something like this. I don't know if you know it, but 281 there are three types of employees at the university. There are Beamte, it's definitely 282 not possible for them. And then there is Vertragsbedienstete where it's also not possible. And then there's the Kollektiv, so the people who have started university 283 during the last 10-15 years like me. I don't really think it would be possible, and then, 284 so you always have to take this into account that there are like 3 basically that there 285 286 might be three people doing the same job. I don't know 3 professors and they have very different details in their contracts and very detailed very different rights in what 287 288 has to imbursed for them and what not and so on. I think I wouldn't want to do it, and 289 I think it would not be possible.

290

I: You also talked about car and public transport travel guidelines, which is also written
in the report and the question is what criteria did you use to define, as long as I
remember it was written - mit öffentlichen Verkehrsmittel gut erreichbar.

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295 P: I think that was the one that's written regarding the flights where you cannot fly, but 296 I mean I can tell you for the let's say if you want to take a car so first of all you have to 297 be going somewhere which is like further away than you know 30 minutes because we say, well, the university works quite well with public transport. It's quite well 298 299 connected, so if you go somewhere guite close you can always go by public transport, or you can always go by bike or walk or whatever. And then the other thing is you 300 cannot go further than 200 kilometers. It's again, it's the same thing. Then you should 301 302 go by train. So you can only go in between by car. That's something we have here 303 quite a bit because we are in the mountains, the side valleys, for example, there's often a really pretty bad situation with public transport. So if you save half of the time by 304 going by car, then you can travel by car. Like so, let's say if the public transport from 305 the university takes one hour and by car it takes like 45 minutes. Then you have to go 306 307 by public transport, but if you go, if it takes only half an hour then you can go by car. I 308 mean that might be different in Vienna, but here for example, especially if you travel 309 to Südtirol or the northern part of Italy, there are quite many destinations, where actually, it's really hard to go by public transport. It takes like 6-7 hours but with the car 310 it takes 2 hours. So there we really have that case. Then again, it's simply because it's 311 not really possible. Let's say if you have to transport things which you can't really take 312 313 on a train. This can be like for example gear for measurements. What we actually have 314 quite often for example, if you know someone has a booth, they set up a booth to advertise the university, they bring posters and put that for workshops. This is then we 315 316 say, well, it's OK, you can go by car. Usually people rent like a small bus, put all this 317 stuff in and drive and then this is really hard to do otherwise. In the end, you know, like we also trust the people. Of course, everyone could always say well, I have to transport 318 319 a lot of things and then if his boss says, well, that's OK, then. It's OK, you know. If not, 320 someone notices that someone always says I have to transport things and always 321 drives to Vienna or I don't know. But so generally like that's how it's done with car 322 travel.

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324 I: But who and how defines these regulations? As for car travel and also for the cities325 have in the list?

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P: Yeah, I mean in the end the rectorate decides that this is the travel guidelines. As I
said, like in that case it was one of my colleagues from the travel management
department last year. And then it's not like that there was like I don't know like a big
vote in the senate or anything. The director just decided on the travel policy.

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I: And there wasn't a specific criteria, maybe about the time or the amount ofkilometers.

334

335 P: Well, as I said, you need to save 50% of the time. So for trips with less than 200 336 kilometers. So that's I think is much better because again, here you have a lot of 337 destinations which are guite close. There may be 50-60 kilometers away, but because 338 they're inside one of the valleys, you would have to go with one bus and another one, 339 and the bus only runs like three times a day. And so that it is really difficult to go by 340 public transport, or it can be very difficult. So, and that's why we said OK, if you save 341 like half the time by going by car and then you have to print a screenshot of Google Maps with your Abrechnung, with your receipts, in order to get the reimbursement and 342 343 you have to show that OK, I had to be there at 11, and by train it would have taken 2 hours, by car only one hour, so that's why it's OK if I go by car. 344

345

I: And going back to the flights, just to be clear, the list of the cities were defined bythe director also, right?

348

P: Well, I mean I don't know why it was done like that, but it's the cities where people have been traveling before because we didn't list any tiny city, because I mean you never know where people go in the future. I would have done it differently, but at the moment it's done like this. Actually, it's t 6 1/2 hours, but at the moment the destinations are listed where you cannot fly and I think this is easier because people
instantly can see, OK, for example, Rome is not on the list, so I can fly there and they
don't have to check how long does it take or not. And now it says all Austria, all in
Switzerland plus Munich, Frankfurt, Stuttgart, Strasbourg, Venice, Milan and Genoa.
But it's based on that 6 1/2 hours.

358

I: Do you have some tips and ideas or what do you think would be useful to implementat the University of Vienna.

361

P: What I personally actually think is the best part of our guidelines because they are 362 363 a bit difficult with this climate fee and so on, also, with that car. The good thing is to check what actually happens with the travel. And this is a bit difficult because for 364 example our let's say baseline is from 2019. Now we took the year 2019 to see OK. 365 366 where are people actually traveling? and? For example, we had about 40, a bit more flights to Vienna. And then you say, well, that really doesn't have to be the case. But 367 what I think is that the best thing is that, restricting the short distance flying, I think 368 369 that's the best thing. This is really like having a lot of emissions and they are avoidable. 370 And so I mean the long distance flying has of course even more emissions because you fly longer and really do a lot of distance, but it's hard to avoid. And I mean the car 371 372 travel, OK, well it's often put to avoid, but actually at least for us, travel by car in 2019 373 it was maybe one or two percent of our emissions from business travel. So actually 374 surprisingly low, 80% or so was long distance flying. And of course it's great to switch 375 from car to train, but it's much more important to switch from plane to train, and that is 376 where it's possible. And then again, I mean I think that it really also depends on the 377 people who then decide on it. So in the rectorate there were some people who were 378 pretty angry and yeah, you have to want to do this despite that. So, but I think that's a 379 good thing. What I would have done differently, but of course it also makes it more 380 complex, is to try to tie the climate fee or whatever to the emissions, because for 381 example now it's tied to the price and the price of a flight is actually often cheaper, if you have a stop somewhere. Let's say you have many flights to the US, people often 382 383 take the flights from Munich, not from Innsbruck because it's cheaper there. So let's 384 say you need to go to San Francisco and you fly from Munich and then there is a direct flight by Lufthansa or United, but there's also the possibility to fly to London or 385 Amsterdam. Change planes and that's usually the cheaper option, but it's of course 386 387 like emissions wise it's a much worse option. And that was also like in the beginning of proposing that we said, OK, like that, you know, we have, let's say a climate fee of 388 I don't know €25 per leg. So if you take a direct flight which is more expensive but has 389 less emissions, your climate fee is lower. Whereas when you take a flight with a stop 390 391 in Amsterdam or London to go to the US, the flight might be cheaper, but your fee is higher. So actually to try people to at least take direct flights and this is not, I mean it 392 is somewhere in the setting policy, please take direct flights, but it's not really anything. 393 And it's of course very complex, because then someone has to check it, you have to 394 395 somehow get the information. What happens if people rebook their flight? What 396 happens if people miss a flight and then they have to be rebooked with the connection?

397 And there are always many questions. We still get a lot of questions where people say well now I don't know this happened like I missed my flight, I booked another one. It's 398 also of course sometimes difficult, but I think that would be like a good thing to at least 399 let's say try. And that's especially since you are in Vienna and you can fly to many 400 401 many places with direct flights from Vienna. From Innsbruck you can never fly really 402 never. We said you can't fly to Vienna and Frankfurt anymore. You can only change planes. Let's say I'm going to Portugal for a conference in Lissabon. Now it's fine for 403 404 me to fly from Innsbruck to Vienna and then from Vienna to Portugal. Whereas of course it would make more sense to take a train to Munich and then a direct flight to 405 Portugal. So, but that's not in our guidelines at the moment, so I think this would be 406 407 something that could be improved. And with this climate fee. I think at the end it really depends on what you're going to use it on. And it's a lot of hassle to collect it, actually. 408 A lot of administrative work, a lot of communication with funding agencies. But then 409 410 again, I guess if the travel is like before COVID, it will also be quite a lot of money you 411 can collect. Where you then can really do some good projects at the university so it 412 can also be guite a good way to find money to finance some other things. And then I 413 don't know if you have any data on how much researchers were traveling before 414 COVID, because maybe it's also different for Vienna. Maybe people fly a lot and take 415 the train a lot, but I don't know, take the car much less, and then you say, well, maybe it's not so important to deal with going by car. 416

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- 418 I: Since train travel is usually more expensive than plane travel, they don't mind...
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P: ...not usually, but of course it's often the case. I mean, again, it's not my opinion because I think people tend to compare, let's say, the full price of the train ticket with a flight the month before. And then in Innsbruck we don't have, you know, RyanAir or WizzAir or anything, so we don't have those very cheap airlines. So if you fly from Innsbruck, that's probably not the case that much. But let's say you fly from Munich to Amsterdam. In many cases it's going to be cheaper than taking a train to Amsterdam.

- 427 I: OK, and you said that you also let the employees choose first class. Would you also428 let them basically be in a sleeping wagon on a night train?
- 429

P: These, for example, really get really expensive quite quickly. Because let's say
again, going to Amsterdam, if you go take a sleeper train, that might be €300 or some.

- 433 I: But you still kinda cover that and is there like any pushback? Do you know how much434 extra cost this kind of entails? And if it's a problem for them?
- 435

P: No problem at all. Actually, the university covered that before the new travel policy
as well. But people didn't know, so the university always did this. But very few people
knew and then, so you know, if you just did and handed in your receipt, you got it
reimbursed. But many people thought it wasn't possible. Because it actually wasn't
possible at many other universities. I worked at another university before and it was

441 not possible to get your sleep train refunded. Or only with, let's say, special, like you had to ask before, and things like that. And then again, like you know, I don't have data 442 for after because there's been so little travel in the last half a year, so I can't say 443 anything on how anything changed. I can only say, of course no flights to Vienna, or 444 445 Frankfurt and Milan anymore, but I don't know if people took the car less. I don't know 446 if they were taking trains further away. Yeah, maybe I'm going to, I mean if COVID is gone now then I can do a good analysis of this at the beginning of 2024, probably. 447 Because even now there's relatively little. Now let's say in the last few weeks, travel 448 really started to pick up, at least what I hear from my colleagues in the travel 449 management department. But until mid end of April there was really no travel or very 450 verv little travel. And to compare it I would need one full year of data without COVID. 451 And I also think that there will be an impact of the video conferencing. I mean, big 452 conferences will go back to being physical meetings, but like all those small project 453 454 meetings, I don't know how involved you've been there. Like let's say those big European Union funded projects with 15 partners all over Europe. They had a meeting 455 at least twice per year, sometimes four or five or six times. And really often it was really 456 457 normal that, like 10 people were flying in from all over Europe for a one day meeting 458 and this will reduce drastically, just not even because of sustainability, because people 459 learnt, it works with video conferences like we need now. And they will switch to that just to save time. Not even to save money or to be more sustainable, but so I think just 460 because of that or also you know, like to go to the university just to give one talk. I 461 mean it has to be a really good occasion that a busy professor, let's say, travels to 462 Berlin to just give a talk. Let's say if it's like a big thing, maybe yes, but if it's in another 463 464 lecture they will just put him on a screen. Now, I think this will already have some 465 impact as well now. So I think at the moment it's not possible for me to properly analyze the change caused by the travel policy. And we can also be like a peak, let's say fall 466 467 back and then so many people want to travel because they haven't done so in two 468 years, and now they all want to go, want to meet their friends, their partners, other 469 institutions that we will have, like insane amount of travel in the next year. This could 470 also happen.

471

472 I: Yeah, I mean it's good to know that your university reimbursed expensive and 1st
473 class train trips already. That would be interesting for us to find out how the University
474 of Vienna is handling it. And the last question is about the Klimaticket that came out
475 this year. If, like you said, the specific people go to Vienna like 40 times a year and
476 they most likely probably buy a Klimaticket.

- 477
- P: Yes, I mean, yeah, a lot of people have bought it.
- 479

480 I: And do you sort of reimburse part of the ticket that they bought for themselves?481

P: There's two things, I mean first of all, and I think the University of Vienna has
something similar. If you buy an annual ticket for public transport, it doesn't matter if
that's just for Innsbruck or for all of Tirol, or the Klimaticket for all of Austria, then the

485 university gives you a subsidy, which is $\in 100$, that's not very much, but you get $\in 100$, and that's a tax free subsidy. It was called a Jobticket before, and now it's called 486 Öffiticket and most universities have this. I am not sure about Vienna, it's for the 487 employees, so you get like €100 and it has nothing to do with business travel. That is 488 489 really mainly for your commuting to work. And then if you have a ticket for all of Austria 490 or for all of Tirol, and you travel within Tirol for business purposes is actually quite 491 simple because we follow the Reisegebührenverordnung. So this is really all regulation within Austria, which was introduced, and I think in the 50s or 60s. Which is valid for 492 all Beamte and Vertragsbedientete, has been for 50-60 years. And so at our university 493 494 there is a Betriebsvereinbarung which is a kind of agreement by the employees and 495 the employer and the Workers Council. That says basically everyone at the university, 496 even if he's not а Beamter. has the same rules regarding travel. And 497 Reisegebührenverordnung is valid for within evervone. the 498 Reisegebührenverordnung there is а certain thing which is 499 Beförderungkostenzuschuss, it's a lot of difficult words, which you can get if you travel 500 without bringing any receipts, because as you know we are a public University, so you 501 only get money reimbursed if you have a receipt. But you can, and I'm pasting you 502 this, it's paragraph 7.4 in the Reisegebührenverordnung. And it says that you can get 503 a certain amount of money if you travel and not present any receipts. Meaning like if I 504 go to Vienna and have the Klimaticket, then I can always put in that certain amount, it's a bit of a hassle to calculate but you will manage, if you're a professor or researcher 505 and then you get reimbursed like that certain amount for your trip, if you have the 506 507 Klimaticket.

508

I: OK, so that is really good to know because that came up during class as well, so it's
not generally possible to then, let's say professor's going to Vienna from Innsbruck
and the cheapest Sparschiene would be like €30, it would not be possible to reimburse
him the €30 without providing any receipt.

513

514 P: No, no, of course not. I mean you always need receipts, and I'm very sure that this 515 is the case in Vienna as well. There are things like that if you go by car, there's the so-516 called amtliches Kilometergeld, it's 42 cents per kilometer. If you go by car, you can 517 get this. And if you don't go by car, let's say you go by train, but have a Klimaticket. You can get this Beförderungkostenzuschuss. For example, every Beamter can get it 518 519 anyway, and the University of Vienna of course still has Beamte, some might not know 520 that they could get this, but they could because it's in the law and the only thing that 521 the University of Innsbruck did and I don't know how this is handled in other universities, but I think it's probably similar and we say OK, everyone, same rules for 522 523 everyone you know. We are not differentiating by travel between people who are 524 Beamte and others so everyone can actually get this Beförderungkostenzuschuss. Sometimes I mean, like if you lost your receipt for your ticket for example and you 525 bought it at the vending machine and you lose it, you will not get it reimbursed. But 526 527 you could still get this, or if you yeah, if someone takes you or other things so.

1	Transcript 2
2	l. Interviewer
3	I: Interviewer
4	P: interviewed Person
5 6	I: Vorstellung des Research Praktikums und Einleitung ins Interview
0 7	Was ist Ihr Verantwortungsbereich bei AGNIS?
7 8	
9	P: AGNIS war eine spontane Initiative, die vor der Pandemie begonnen hat.
9 10	Hintergedanke war was wir am Institut im ganz Kleinen machen können, da auch auf
11	universitärer Ebene bis dahin noch nichts passiert ist. AGNIS ist eine total <i>lose</i>
12	Arbeitsgruppe, und als Kazepov ist diese Gruppe gekommen ist, ist die Gruppe dann
13	auch größer geworden unter Anderem deswegen, da dann die Unterstützung vom
14	Institutsleiter da war.
15	
16	Da wir so lose organisiert sind, gibt es kaum definierte und klare Verantwortlichkeiten.
17	Es werden punktuell Sachen aufgegriffen. Lea ist die, die die meiste Arbeit macht,
18	auch konzeptuell und auch was das Organisatorische angeht.
19	
20	Aktuell beschäftigt sich AGNIS, aber vor allem ich mich mit sozialer Nachhaltigkeit.
21	Wie können wir auch in gesundheitlicher Hinsicht, und im Instituts-Alltag, Instituts-
22	Kultur dazu beitragen auch da ein Stück weit mehr Nachhaltigkeit und demnach auch
23	an Lebens- und Arbeitsqualität zu gewinnen. Das sind auch Themen die laut einer
24	internen Umfrage priorität hatten, vor allem im Bezug zu Arbeitsbelastung und Institut-
25	Alltag.
26	
27	Letztes Semester gabs soziologische Vorträge, es gibt viele Maßnahmen im Bereich
28	der Beschaffung (Materialien) bezüglich Nachhaltigkeit und weiteres
29	(Lehrveranstaltungen, Mobilität).
30	
31	Wir sind derweil an ganz einfachen Dingen gescheitert, zum Beispiel beim Aufstellen
32	einer Fahrradreparatur-Säule vorm Institut.
33	
34	I: An was ist es bei dem gescheiterts?
35	
36	P: Aufstellung der Fahrradständer war schon problematisch - das war eigentlich
37	unserer erste Initiative - da haben wir den Fehler gemacht, dass wir nicht gut
38	kommuniziert haben und die da die Bagru nicht sehr amused war, dass wir ihren Platz
39	da eingenommen haben. Es hat aber dann eh alles gepasst. Das andere war immer
40	die Frage "wo darf man das aufstellen" und wie siehts mit Finanzierung aus?
41	le Million de la diferie de la complicit de la Malancia de la complicit de la complete de la complete de la comp
42 42	I: Wäre es auf Institutsebene möglich verpflichtende Maßnahmen einzuführen,
43 44	bezüglich Dienstreisen, z.B. das Verbot gewisse Standorte mit dem Flugzeug
44	anzufliegen?

45

46 P: Das ist eine der spannendste Fragen. Gut wäre es sich den Ist-Zustand anzusehen, 47 also welche Reisen werden durchgeführt und welche werden mit Bahn und Flugzeug 48 durchgeführt? Ich würde glauben, dass ohnehin alles was innerhalb von 6 Stunden 49 erreichbar ist, unter Soziologinnen, sowieso mit der Bahn gemacht. 50 Kommunikation der Richtlinien mittels fundierten Daten ist wichtig, um Maßnahmen 51 durchzubringen. 52 Argumente gegen Bahn: Nachtzugverbindungen kostet viel Zeit, die habe ich nicht 53 und Komfort ist nicht gegeben. Machen wir den Leuten die Bahnreisen schmackhaft, 54 und aber nehmen wir in Kauf, dass es teurer ist und zahlen ein Schlafabteil. Man muss 55 aber dann auch sagen, dass es länger dauert und geben wir den Leuten die Zeit 56 (Stichwort: Entschleunigung). 57 58 Es gibt auch an unserem Institut Leute, die das nicht selbstverständlich sehen mit dem Zug zu fahren. Bezüglich Verbote find ich es total schwierig, das ist auch bei uns in 59 AGNIS der ein großes Thema, braucht es Verbote oder eher Anreizmodelle? 60 61 62 I: Denken Sie aber wären aber so Verbots-Destinationen am Institut jedoch 63 umsetzbar, oder gäbe es da zu viel Widerstand? 64 65 P: ich finds total schwierig, ich denke aber, dass es eine Mehrheit dafür geben würde. 66 Aber man würde sich auch viel Unmut einhandeln. Wenn man also sagt: bezahlt wird 67 es nur wenn du die Bahn nimmst, sonst zahlt man es selbst kommt da ein soziales 68 Ungleichgewicht hinein, da zB Professoren sich das eher leisten können. Da fände ich es charmanter wenn man sagt man macht die Regelung wie Sie sagen, aber man 69 beschränkt es auf die Professorinnen. Keine Ahnung, ich habe jetzt wahrscheinlich 70 71 nicht allzu weit gedacht, das sind jeglich meine persönlichen 72 Einschätzung und Meinung und auch nicht repräsentativ für AGNIS. 73 74 Die Durchsetzung sollte auch immer im Einklang mit der Uni Wien sein. Wir sind da 75 eigenständig losgedrescht und haben dann gesagt bekommen nein bitte orientiert uns 76 an unseren Maßnahmen. 77 78 Ich fände es total schön, wenn die Einnahmen von dem Klimabeitrag verwendet 79 werden würden für Zuzahlungen für das Klimaticket. Es ist schade, dass die Die das 80 Klimaticket haben keine Möglichkeit haben sich Fahrtkosten zurückerstatten zu 81 lassen. 82 83 Ich finde Idee mal ganz gut einmal Städte zu identifizieren die eine gute Verbindung 84 haben. 85 86 Ich find die Frage was man umsetzen kann am schwierigsten und am spannensten. 87 Ich hadere selber immer zwischen diesen Verbots- und Anreizmodell, weil ich mir 88 natürlich denke alles nur über Anreize zu gestalten ist auch schwierig und man hat

- einfach bei so vielen Fällen schon gesehen, dass es einfach manchmal ganz gut ist
 es beinhart mit Verboten zu machen. Bin halt immer etwas skeptisch wie man dann
 Legitimation dafür bekommt. Und es is net so, nur weil es das Institut für Soziologie
 ist, dass man automatisch davon ausgehen kann dass alle dafür Verständnis haben.
- Die Frage ist wie löst man das? Macht man ne Umfrage, und gilt dann derMehrheitsbeshluss? Das find ich schwierig.
- 97 Ich möchte noch mal wiederholen was ich so wichtig finde das müssten die
 98 Führungskräfte machen, die Belegschaft zu bestärke und zu sagen ,hey es ist okay
 99 wenn du zu einem Kongress fährst und die Anreise länger dauert".
- 100

96

Da gehts dann auch umso Fragen wie man dann mit Arbeit umgeht. Wird erwartet
dass während der Fahrt gearbeitet wird oder nicht. Die Leute wollen eh arbeiten und
tun es auch oder ist es auch legitim zu sagen, dass man mal 8 Stunden aus dem
Fenster schaut und das schadet auch niemanden. Es ist nämlich nicht ganz geklärt

105 ob bei Reisen erwartet wird dass gearbeitet wird oder nicht.

- 1 Transcript 3
- 2
- 3 I: Interviewer
- 4 P: interviewed Person
- 5

6 I: Vorstellung, was sind die Aufgaben in der Uni?

P: Bereich Nachhaltigkeit, im Bereich Raum- und Ressourcenmanagement verankert.
Koordinierend, vielfältig, Strategieerstellung, Allianz, Erstellung THG Bilanz. Auf
zentraler Ebene ist es die einzige Position. Weitere Position ausgeschrieben:
Projektmanager*in Energie und Nachhaltigkeit (eher technisch, Energiemaßnahmen
umsetzen, entwickeln). Größeres Netzwerk wäre schön.

12 I: Status der Reiserichtlinien

13 P: Nicht Richtlinien, sondern Empfehlungen für Nachhaltige Dienstreisen. Sind 14 November 2021 in Kraft, wurden im Oktober beschlossen. Flugabgabe ist ab Januar 15 2022 gültig. Treibhausgasbilanzen anderer Universitäten zeigen, dass die Flugreisen besonders viele Emissionen verursachen. Covid Window of Opportunity sollte genutzt 16 17 werden: Maßnahmen einführen, solange noch nicht viel gereist werden kann. Gute 18 Entscheidung, da in der Treibhausgasbilanz der Uni Wien herausgekommen ist, dass Mobilität ebenfalls ein riesiger Verursacher von Emissionen ist. Jetzt wo die Zahlen 19 der Treibhausgasbilanz vorliegen, kann die Einführung der xxx gerechtfertigt werden. 20

21 I: Werden die 20% der Fluggebühr erfolgreich eingesammelt?

P: Funktioniert automatisch, eigene Stelle für Flugkosten eingerichtet, es wird noch
abgewartet, aber dann wird geschaut, wofür das Geld eingesetzt wird. 50 Euro
Mindestabgabe, nach Diskussionen wurde eine Deckelung von 150 Euro eingeführt.

25 I: Wie kam die Deckelung zustande?

P: Es ist schwierig alles zu bedenken, es ist in Ordnung, dann nochmal darüber zu
diskutieren. Und bei manchen Fächern muss öfter weit gereist werden.
Kurzstreckenflüge verursachen ebenfalls einen großen Teil der Emissionen, nicht nur
Langstreckenflüge. Auf diese sollte man achten. Es ist sehr passend dann eher dieses
Thema zu adressieren.

31 I: Wofür sollen die 20% genutzt werden?

P: Keine genauen Pläne, da man nicht weiß, wie viel Geld insgesamt
 zusammenkommt? Mit den zahlenden Stellen sollen gemeinsam Ideen entwickelt
 werden. Grundsätzlich soll es aber für Maßnahmen an der Uni Wien eingesetzt
 werden.

36 I: Sind die Drittmittelprojekte einverstanden damit, dass 20% extra gezahlt werden37 müssen?

- P: Sie ist sich nicht ganz sicher, wie es dort umgesetzt wird. Bei Drittmitteln wird es
 wahrscheinlich erst 2023 eingeführt werden.
- 40 I: Die Climate Fee ist aber verpflichtend?
- 41 P: Ja, es ist die einzige verpflichtende Maßnahme, die automatisch durchgeführt wird.
- 42 I: Eintritt bei der Allianz für Nachhaltige Universitäten? Warum erst jetzt?

P: Ja es ist spät. Ich habe selbst nachgefragt. Im Portfolio des Rektorats ist
Nachhaltigkeit erst seit 2019 dabei. Es war für die Uni Wien jetzt einfach ein guter
Zeitpunkt. Sie beteiligen sich erst, wenn sie glauben, auch wirklich etwas beitragen zu
können. Ja es ist spät, aber jetzt wird zentral daran gearbeitet.

47 I: Empfehlung zu Reisen unter 6 Stunden mit dem Zug: Wie sind diese 6h entstanden?

48 P: Andere Unis haben sehr unterschiedliche Reisezeiten bei der Bahn. Es heißt, dass

49 6 Stunden noch eine angenehme Reisezeit sind. Es ist die deutliche Empfehlung vom

- 50 Rektorat. Nachtzug wird dennoch empfohlen.
- 51 I: Umsteigezeiten werden in die Reisezeit inkludiert?

52 P: Es geht nicht genau um 6 Stunden, eher ein Richtwert, um mehr Zugreisen zu

53 fördern. In den Empfehlungen gehen aber manche Aspekte unter: sehr wichtig ist,

- 54 dass der Zug genommen werden kann/sollte, auch wenn er teurer als ein Flug ist.
- I: Gibt es einen Plan, ob die Empfehlungen irgendwann verpflichtend sein sollen?

P: Nein den gibt es nicht. Es sind Empfehlunge, da wir niemandem vorschreiben
möchten, was sie zu tun haben oder strikt ein Verkehrsmittel zu verbieten.

58 I: Wie werden die Empfehlungen angenommen?

59 P: Flugabgabe ist ja automatisch. Andere Empfehlungen: es gibt schon Rückfragen.

60 Es gibt schon großes Interesse. Ich glaube es wird gut angenommen. Leider keinen

Einblick, wie es wirklich umgesetzt wird. Bei der Mobilitätsumfrage kam raus, dass
viele nach Corona weniger reisen wollen. Die Frage ist nur mit welchem
Verkehrsmittel.

64 I: Sind weitere Schritte für mehr Nachhaltigkeit geplant?

P: Arbeiten gerade an der Roadmap zur Klimaneutralität. Diese teilt sich auf in Energie
und Gebäude, Mobilität und Materialeinsatz. Mobilität ist da sehr entscheidend.
Gerade wird geschaut, welche Maßnahmen Sinn machen und wie diese umgesetzt
werden sollen. Die Dringlichkeit wird gesehen.

69 I: Wie sieht es mit dem Flight-Decision-Tree aus?

P: Dieser ist für Bewusstseinsschaffung da. Ist die Reise wirklich notwendig? Kann ich

71 online teilnehmen?

- 72 I: Wir haben Reisedaten für das Institut bekommen. Da wurde das Budget in drei
- 73 Kategorien eingeteilt. Globalmittel, Berufungsmittel, Drittmittel. Drittmittel fällt jetzt
- nicht unter die 20% Abgabe?
- P: Grundsätzlich schon, aber erst bei neu angelegten Projekten mit Overhead ab2023.
- 77 I: Haben sie noch Tipps für uns?
- 78 P: Informationen teilen ist immer sehr wichtig. Infos weitergeben, aber alle erreicht die
- 79 Information doch nicht.