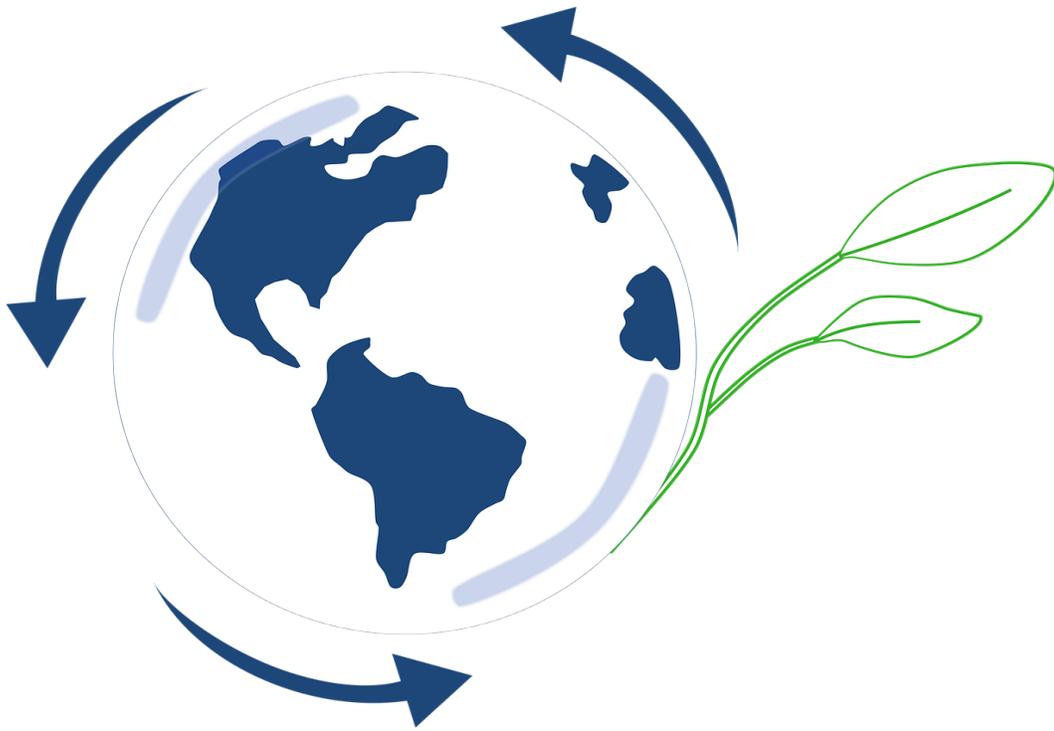


## Establishing a carbon-conscious air travel cycle at UM



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## 1. Proposal summary

The proposal outlined below outlines a feasible institutional policy framework to springboard Maastricht University (UM)'s air travel culture into a future of sustainable travel that should be undertaken urgently as a cornerstone of the Sustainable UM2030 goals for sustainable operations. Below, we lay out a holistic carbon-conscious air travel cycle for UM staff and students, to be implemented in phases from 2020-2023. All elements of the policy have already been successfully implemented at higher education institutions across the Netherlands, Europe, and North America. Key elements of the policy involve contributing to the development of a new academic culture in which long distance air travel is not viewed as imperative for a successful international network and academic career, disincentivizing air travel while incentivizing low-emission modes of transport, and introducing a system to compensate air travel emissions. The policy also proposes compensating 100% of UM community air travel emissions by investing in an internal UM Air Travel Mitigation Fund, and supporting low-emission travel choices by subsidising sustainable travel choices and funding sustainability projects for students and staff from the UM Air Travel Mitigation Fund. The Green Impact 2020 team submits this proposal for consideration to the Sustainable UM2030 Taskforce and the UM Executive Board, and requests a decision regarding the implementation of the policy and the allocation of project funding as outlined in section 5, Operations and Finance.

## 2. Project background and context

It is indisputable that aviation's contribution to carbon dioxide emissions is a global issue of urgent concern, for which individual organizations need to take responsibility. Currently, Maastricht University offers employees the possibility to voluntarily offset their air travel emissions through the South Pole Group, an external offset company. However, as of spring 2020, UM staff have rarely made use of this option, and travel by the UM student population is not taken into account.<sup>1</sup> UM could improve and expand this policy in a number of ways that are outlined in this proposal prepared by the Green Impact Air Travel team.

The Green Impact Air Travel team is part of a UM-wide grassroots initiative that gives the UM community the opportunity to propose environmentally friendly practices related to education, research, and operations. This initiative is a response to the Taskforce Sustainable UM2030's call for contributions to UM sustainability issues. In order to expand on the currently very limited offsetting options at UM, and to respond to calls from the European Commission, the [Dutch Universities Climate Letter](#), and broader societal campaigns such as [No Fly Climate Sci](#), the Air Travel team has developed a carbon-conscious air travel cycle for both UM staff and students to be implemented at UM.<sup>2</sup> UM has made ambitious statements about its intentions to integrate sustainability into the DNA of the entire organization by 2030.<sup>3</sup> At the same time, many other Dutch and European universities have already adopted sustainable

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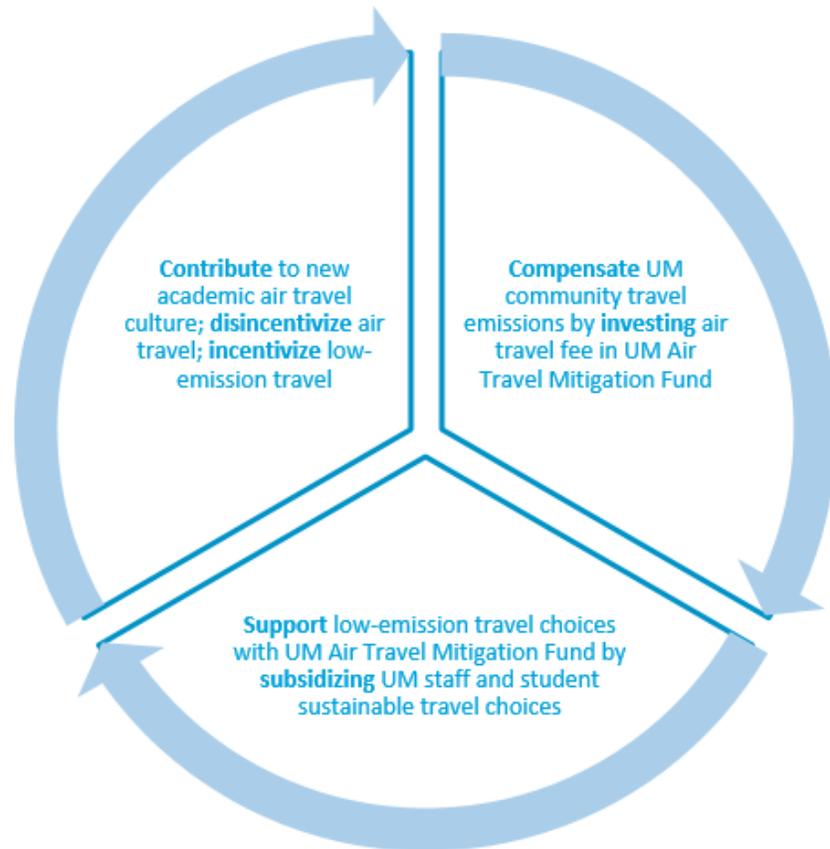
<sup>1</sup> One of UM's preferred travel suppliers, The Travel Club Business, reported that as of spring 2020, only 6 UM employees had offset their carbon emissions when booking travel through the company.

<sup>2</sup> EU Committee on Culture and Education, Laurence, and Laurence Farreng. "DRAFT REPORT on Effective Measures to 'Green' Erasmus, Creative Europe and the European Solidarity Corps." *European Parliament*, 30 Mar. 2020, [www.europarl.europa.eu/doceo/document/CULT-PR-648431\\_EN.pdf](http://www.europarl.europa.eu/doceo/document/CULT-PR-648431_EN.pdf).

<sup>3</sup> <https://www.maastrichtuniversity.nl/about-um/sustainability>

air travel policies. It is vital that UM takes action to develop and implement its own sustainable air travel policy.

The UM carbon-conscious cycle is a circular solution to UM air travel emissions that is inspired by the imagery of the well-known Three R (Reduce-Reuse-Recycle) slogan. The implementation of this cycle will make UM a leading university in compensating air travel emissions, making UM even more attractive to an increasingly carbon-conscious international community. Moreover, it is in line with the core values of the UM as outlined in its Community at the Core Strategy.



The carbon-conscious cycle will benefit the UM community in four key ways by:

1. Contributing to the development of a new academic culture in which long distance air travel is not viewed as imperative for a successful international network and academic career;
2. Disincentivizing air travel while incentivizing low-emission modes of transport and introducing a system to compensate air travel emissions;
3. Compensating 100% of UM community air travel emissions by investing in an internal UM Air Travel Mitigation Fund;
4. Supporting low-emission travel choices by subsidising sustainable travel choices and funding sustainability projects for students and staff from the UM Air Travel Mitigation Fund.

Developing a carbon-conscious air travel cycle at UM is an urgent issue. As an innovation leader, it is imperative for UM to take a proactive stance towards implementing carbon-neutral initiatives: research indicates that the behaviour of leaders shapes the behaviour and attitudes of others.<sup>4 5</sup> It is time to review how we fly at UM. In addition to concretely addressing the urgency of climate change, the carbon-conscious air travel cycle we outline below is feasible for UM to implement. All elements of the cycle have already been implemented at other higher education institutions in both Europe and North America. The Green Impact team has based the cycle on an inventory of the green travel policies that have been implemented successfully at the University of Antwerp<sup>6</sup>, Ghent University<sup>7</sup>, and KU Leuven (Belgium)<sup>8</sup>, Utrecht University<sup>9</sup> and Rijksuniversiteit Groningen (The Netherlands)<sup>10</sup>, the Lund Centre for Sustainability (Sweden)<sup>11</sup>, and UCLA<sup>12</sup> and Arizona State University (USA)<sup>13</sup>. These solutions have been adapted to the UM context, resulting in a carbon-conscious air travel cycle for both UM staff and students.

### 3. How does the UM carbon-conscious cycle work?

The aim of the cycle is to encourage and support the UM community in making low-emission travel choices. In order to ensure not only compliance but also that the community is assisted in making more sustainable travel choices, financial disincentives are complemented with subsidies for greener travel and awareness-raising measures.

The following complementary actions will be introduced from 2020-2023 (see Annex 3 for two case studies on how to travel to different destinations using our proposed cycle). The proposed project timeline may be found in Chapter 4.

#### 3a. Develop a new academic culture on air travel

Currently, frequent long-distance travel is viewed as an imperative for a successful international network and academic career. UM's carbon-conscious cycle aims to question this view by showing how the academic community can make alternative, sustainable travel choices.

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<sup>4</sup> Wynes, Seth, et al. "Academic Air Travel Has a Limited Influence on Professional Success." *Journal of Cleaner Production*, Elsevier, 12 Apr. 2019, [www.sciencedirect.com/science/article/pii/S0959652619311862](http://www.sciencedirect.com/science/article/pii/S0959652619311862).

<sup>5</sup> Bromme, R., et al. "Statements about Climate Researchers' Carbon Footprints Affect Their Credibility and the Impact of Their Advice." *Climatic Change*, Springer Netherlands, 16 Jun. 2016, [link.springer.com/article/10.1007/s10584-016-1713-2](http://link.springer.com/article/10.1007/s10584-016-1713-2).

<sup>6</sup> <https://www.uantwerpen.be/en/research-groups/global-change-ecology/sustainable-mobility/>

<sup>7</sup> <https://www.ugent.be/en/ghentuniv/principles/sustainability/travelpolicy>

<sup>8</sup> <https://www.kuleuven.be/duurzaamheid/sustainability/travel-policy>

<sup>9</sup> <https://www.uu.nl/organisatie/duurzame-uu/bedrijfsvoering/anders-reizen>

<sup>10</sup> <https://www.rug.nl/about-ug/profile/facts-and-figures/duurzaamheid/nieuws/vliegensvlug-met-de-trein?lang=en>

<sup>11</sup> [https://www.lucsus.lu.se/sites/lucsus.lu.se/files/lucsus\\_travel\\_policy.pdf](https://www.lucsus.lu.se/sites/lucsus.lu.se/files/lucsus_travel_policy.pdf)

<sup>12</sup> <https://www.sustain.ucla.edu/airtravelfund/>

<sup>13</sup> <https://secondnature.org/climate-action-guidance/iv-case-studies/#resource9>

In this respect, awareness raising is the starting point of this policy. Financial disincentives and subsidies alone will not be enough - academic culture needs to move away from air travel towards both less and greener travel.

We propose an awareness campaign that ensures that no UM colleagues should travel without understanding the effects of the emissions generated by their trip on the environment. This will also promote understanding for the financial disincentives (and subsidies) that will be introduced. A substantiated and user-friendly communication campaign is therefore a necessary condition to promote how UM can travel differently, and why sustainable travel is so important. Utrecht University's ['Anders reizen' campaign](#) is just one example of a user-friendly campaign that assists the academic community in making new travel choices.

Second, the UM community must become familiar with working alternatives to air travel. Important alternatives that will be promoted are, for example, well-equipped video conferencing facilities, as well as an easy booking process of lower-emission travel and access to corresponding subsidies.

The UM carbon-conscious air travel cycle should be visible on both the UM website and Intranet, and lead to this information. Awareness, visibility, and usability for staff and students are the keywords.

To help achieve this awareness and usability, a decision tree is proposed (see Annex 2 for a basic schematic). The first step in this type of decision tree aims to stimulate staff to think whether travelling is really necessary. What are the benefits for knowledge generation? What are the benefits of not travelling, and using digital meeting tools instead? Can the meeting be held virtually by using UM's videoconferencing facilities?<sup>14</sup> If travel is considered essential, the next steps in the decision tree outlined below aim to sustainable transport choices.

### 3b. Limit short flights and incentivize alternative modes of transport

#### Colour-code European cities

Frequent travel destinations will be colour-coded in either green or orange, in line with practices at other universities (see Annex 1 for examples). Green cities are cities that take less than 7 hours to reach by bus or train starting from Maastricht, or if the travel time by bus/train is no longer than the travel time by plane (door to door travel, which includes travel time to the airport and waiting time). Please see Annex 4 for details on travel time is calculated. Trips to green cities must be made by train or bus, and staff and students may apply for assistance from the proposed UM Sustainable Travel Officer and/or from the UM Air Travel Mitigation Fund, outlined below. Including car travel in this project should be further investigated.

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<sup>14</sup> For this, an increase in the number of videoconferencing facilities at UM (and making staff aware of their existence), will be necessary.

Orange cities are cities that take less than 12 hours to reach by train or bus. Travellers will be encouraged to opt for transportation by train/bus, though this will not be mandatory and flying will be allowed. The UM Sustainable Travel Officer will be responsible for creating user-friendly (online) guides on how to book tickets, travel duration, and carbon emissions to help UM staff and students make well-informed decisions.

#### Assist the UM community in making more sustainable travel choices

A major current issue for the UM community is the fragmentation of carbon offset possibilities across multiple preferred travel suppliers, as well as across many faculties and departments. Booking the best connections and prices for international train travel can be complex, and the current UM preferred travel agencies do not always have the expertise to inform and assist UM employees. To make international train connections attractive, the combination of train, bus, and taxi shuttle is sometimes necessary. In the Netherlands or Germany, there are specialised agencies who can provide these services (e.g. [treinreiswinkel.nl](http://treinreiswinkel.nl), [gleisnost.de](http://gleisnost.de)). However, because of this added booking complexity, even highly motivated employees who are accustomed to low-emission traveling experience difficulties need additional support. This important issue is illustrated by the experiences of UM staff member Martin Unfried in Annex 5. To successfully support the UM community in making sustainable travel choices, good communication with staff that navigates UM's carbon-conscious air travel cycle and preferred travel suppliers must be ensured. The UM Sustainable Travel Officer will be responsible for informing and supporting the UM community on how to make the best travel choices, in terms of both carbon emissions and usability.

Sustainable travel will only be welcomed by UM staff if good alternatives to flying are offered and if there is excellent support with respect to the technical booking process of these alternatives. As a first step, UM's preferred travel agencies should be requested to offer such a service. If, for any reason, they are unable to offer suitable alternatives, it could also be the role of the future UM Sustainable Travel Officer to work with staff and agencies in order to make the practical booking of train and/or bus travel as easy as possible in order to incentivise these modes of travel for the UM community.

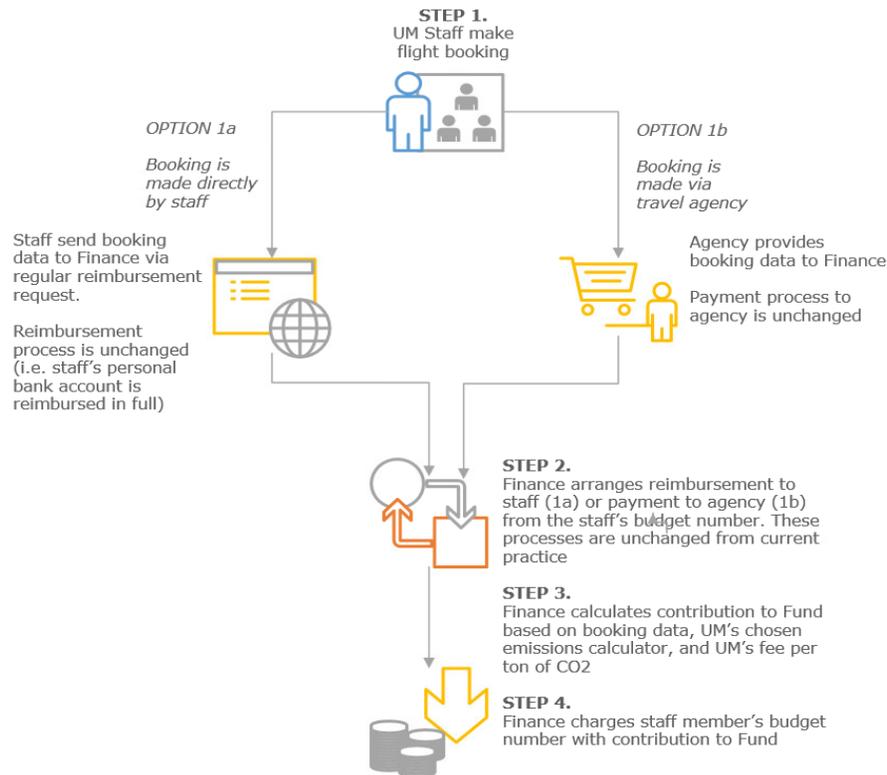
#### 3c. Compensate air travel emissions by investing in the UM Air Travel Mitigation Fund

The second aspect of this policy addresses the issue of internalising external costs result from air travel<sup>15</sup>.

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<sup>15</sup> See van Essen, Huib. (2018). Sustainable Transport Infrastructure Charging and Internalisation of Transport Externalities: <https://ec.europa.eu/transport/sites/transport/files/2018-year-multimodality-external-costs-ce-delft-preliminary-results.pdf>

## The UM Air Travel Mitigation Fund: an in-house circular solution



Building air travel compensation into the UM community will allow a fully circular solution to UM air travel emissions. UM's scheme differs from traditional offset investments in that instead of investing in offsetting emissions through less tangible, longer-term planting projects, UM's carbon-conscious cycle will directly subsidise low-emission modes of transport and projects at UM, thus reducing local emissions in a measurable way. By channelling all compensation from UM flying into a UM Air Travel Mitigation Fund, UM can succeed in disincentivizing air travel, while also ensuring that the compensatory funds are channelled directly back into the UM community to provide funding for even more sustainable travel and other green projects at UM. It also gives emitters the certainty that their compensation is supporting colleagues, and benefiting them when they opt for a more sustainable travel option. It also allows UM to have full control over reinvesting the compensation funds in ways that reduce the University's carbon footprint.

## Introduce a respected emissions calculator

A crucial step to get the Fund up and running will be to UM to select a reliable emissions calculator. Simple and accurate calculators of emission tonnage per flight are [Atmosfair.de emissions calculator](#) or [CARMACAL](#). Atmosfair has received numerous accolades and is considered as a top provider for carbon calculations by various outlets and studies, while CARMACAL includes a very wide range of carbon sources relevant to a trip (e.g. accommodations and activities).

### Tax air travel emissions

The emissions calculator will provide the emissions data. However, as UM will not be using third parties to offset emissions, the penalty (disincentive) per ton of CO<sub>2</sub> may be set by UM. It is recommended to choose a high penalty per ton of CO<sub>2</sub> that forces travellers to think twice before taking a plane. A fee of 80 to 100 EUR per ton of CO<sub>2</sub> could be explored as a suitable disincentive.<sup>16</sup> A higher penalty for frequent flyers could also be introduced (for example, the first flight pays 100% of the established fee, the second flight 105%, the third flight 110%, etc.).

### 3d. UM Air Travel Mitigation Fund: support sustainable travel choices and projects



#### Subsidize sustainable travel choices

One of the major issues in international business travel includes the systemic disadvantages of train travel: traveling internationally by train in Europe is often much more expensive and complex to organise than booking flights. The funds raised from air travel compensation can be used to provide fair competition between international train trips and flights, incentivizing lower-emission modes of transport.

The UM Air Travel Mitigation Fund will primarily offer staff and students the opportunity to apply for funding when booking sustainable travel options. The fund could support many lower-emission travel opportunities within the UM community, including but not limited to (and subject to technical/legal feasibility):

- Higher accommodation costs due to a train connection requiring overnight stay;
- Higher travel costs due to travelling by train or other public transport;
- Special arrangements for shuttle services to reach high speed trains and make the trip more comfortable;
- Low-emissions travel grant for outgoing Erasmus++ students who choose to travel by to/from their host destination by train or other public transport (from 2021 onwards);

<sup>16</sup> A round-trip flight Brussels (Belgium) to Boston (USA) generates roughly 3 tons of CO<sub>2</sub>. At a penalty of 80-100 EUR per ton of CO<sub>2</sub>, this would add 240-300 EUR to the total price of the flight.

- Low-emissions travel grant for EU exchange students who choose to travel to/from the Netherlands from their country of origin by train or other public transport (applies to curriculum-related travel, not daily commuter travel);
- Group travel (e.g. renting of a van)
- Using electric taxis instead of regular taxis when driving to the airport.

For local situations where there is poor access to public transport, and a taxi would be too expensive (such as Liège, Heerlen, and Aachen), UM could consider having a pool of electric vehicles available.

### Fund sustainability projects

While funding sustainable travel options would be the primary purpose of the Fund, part of its resources could also be dedicated to other UM sustainability projects. The Sustainable UM2030 Task Force could be mandated to make decisions regarding which green projects receive financial support from the Fund. For example, UM could use the Fund to support greening projects to offset its carbon emissions with third parties, and/or support other sustainability initiatives within UM, including research projects.

### 3e. What about students? A note on curricular travel

As Section 1 of this proposal has shown, curricular travel by students (e.g. exchanges, research projects) should be included in any re-imagining of UM's air travel culture.

As student travel is more complex than business travel, this topic should be explored in detail at a later stage, once the cycle has been implemented for staff. While UM students cannot be asked to compensate their flight emissions to the UM Air Travel Mitigation Fund, the Fund can and should subsidise low-emission travel choices by students to, for example, their Erasmus++ destinations from 2021. In addition, UM could explore making additional contributions to the Air Travel Mitigation Fund to offset the air travel emissions of air travel generated because of curricular activities. An important part of this process will be examining the Dutch judicial frameworks concerning University funding streams to the Fund, and from the Fund to students.

## 4. Implementation, monitoring, and evaluation

The successful implementation of this policy will require the joint capacity and coordinated work of several UM departments. In addition, a system should be set up to monitor, evaluate, and further adjust this policy. For example, the development of a *UM Mobility Tool* could give insight into the effectiveness of the policy, by providing information on the frequency of travel, modes of transport used, tons of CO<sub>2</sub> emitted from travel, and compliance in paying the emission fees into the UM Air Travel Mitigation Fund. A future implementation plan should elaborate on these details.

### 4a. From theory to practice: navigating the maze

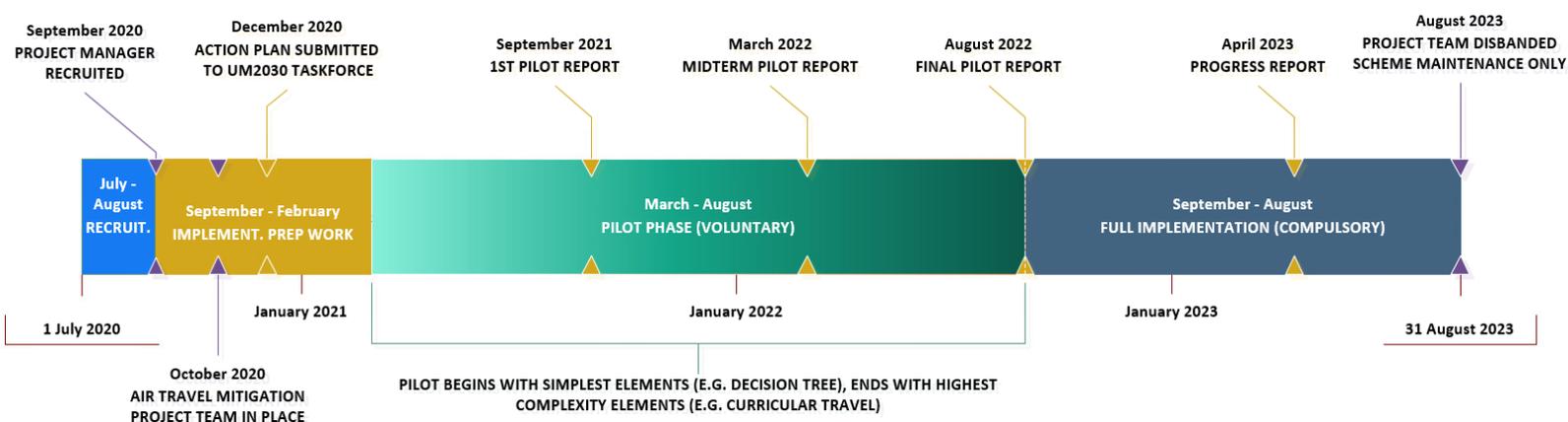
Currently, UM's 'International Travel Policy' is designed for business trips. Staff can book business travel either through preferred suppliers (three different travel agencies) or directly at the individual level and

later claim the cost as a business expense.<sup>17</sup> Student (curricular) travel is not targeted in the current policy; however, as explained above, its inclusion will eventually be necessary to ensure that UM's carbon-conscious cycle is applied to all international travel generated as a result of UM activities.

Designing a coherent and holistic system that brings all these elements together will be no small feat. The Departments responsible for procurement (Facility Services), reimbursements (Finance), technology solutions (ICTS), compliance (Legal Affairs), and student support (SSC) will all need to be involved in the implementation of the policy. Ensuring systematic data collection should be also a point of attention when designing the mechanisms that will be necessary for the new policy to be implemented.

A Sustainable Travel Project Manager should be tasked with implementing the new International Travel Policy. The Project Manager should design an implementation plan and assemble a cross-departmental project team.

The implementation should follow a phased approach, first introducing the simplest elements to the scheme, and adding layers of complexity as the policy development advances. This will also allow further research to be carried out where necessary, without stalling the introduction of the scheme.



### Preliminary implementation timeline

#### *July 2020 - August 2020: Project recruitment*

The months of July and August could be used to recruit the Sustainable Travel Project Manager, so that work can begin in September.

#### *September 2020 - February 2021: Implementation prep work*

<sup>17</sup> Flights often have to be covered by a project's budget. Staff often book flights themselves, rather than through preferred suppliers, because they often find a 'cheaper' deal.

First, the Project Manager should identify and assemble the members of the (cross-departmental) Air Travel Mitigation Project Team. Once in place, the team should prepare an action/implementation plan with concrete steps on implementation and more details on resource allocation.

*March 2021 - August 2022: Pilot phase (voluntary)*

The scheme begins to run. This is where the phased approach takes effect. While some processes will not be ready (e.g. automatic subsidy system, new tenders for travel agencies, integration of curricular travel), others parts of the scheme (e.g. awareness campaign, voluntary compensations) can be implemented. New tools will be added to the scheme as they become available. Regular progress reports should be prepared, both on the implementation, the usage of the scheme, and the response of the UM community. At this stage, participation in the project will be voluntary for the UM community.

*September 2022 - August 2023: Full implementation (compulsory)*

The scheme is fully implemented. All UM business air travel is disincentivized and subsidies are easily accessible for greener modes of transport. The project manager and project team remain in place for a year to further fine-tune the scheme. In September 2023, the project manager and project team will be phased out. A Sustainable Travel Officer will be phased in to manage the scheme.

#### 4b. Monitoring, evaluation, and future adjustments

As part of the implementation plan, a system to monitor the progress of the policy implementation should be developed, based on clear policy objectives that are measured through a set of dynamic Key Performance Indicators (KPIs) that evolve as the policy is rolled out. Comprehensive, systematic data collection will play a crucial role in order to be able to measure project progress across the departments involved.

The Sustainable UM2030 Taskforce - Operations could be mandated to decide on such short-term policy objectives, progress evaluation, and the introduction of new measures. This will ensure that the policy receives sufficient institutional steering, as well as will establish a clear line of ownership and accountability. The Taskforce could elevate issues of critical importance to the UM Executive Board for guidance or decision-making.

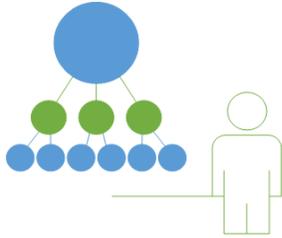
Progress/impact reports could be prepared by the project team, approved by the Taskforce, and presented biannually to the UM Executive Board and the wider UM community.

#### 5. Operations and finances

This section outlines a preliminary indication of the resources that UM should dedicate to the set-up of the new air travel cycle. A future implementation plan should make concrete proposals upon discussion with the departments involved.

## 5a. Years 1-3: Project implementation

### Leading the project: Project Manager



A future Project Manager should be tasked with coordinating the policy implementation. To ensure sufficient attention to detail, a minimum of 0.4 FTE for a period of 3 years should be dedicated to this endeavour. The project manager could report to the UM2030 Taskforce (or to UM's Sustainability Officer) and would oversee a project team for the duration of the project.

During the implementation period, the project manager will be tasked with, among other responsibilities:

- Establishing a communication and PR plan to gain support from the UM community;
- Establishing a workflow that aims to minimise effort for staff to pay CO2 compensation;
- Establishing working partnerships and agreements with third parties (e.g. travel agencies) to promote sustainable travel;
- Establishing rules and workflows for how sustainable travel is compensated;
- Investigating other ways to fund the UM Air Travel Mitigation Fund;
- Being the point of contact for UM staff with enquiries about sustainable travel at UM.

After 3 years, once the project has been fully implemented, the project manager and project team will be phased out. A Sustainable Travel Officer will be phased in to manage the scheme.

### A collective effort: the Air Travel Mitigation Project Team

A cross-departmental project team should be set up to design the new processes and ensure they can be implemented throughout UM for both business and, where possible, curricular student travel.



This will require small allocations of individual staff capacity (e.g. 0.1-2 FTE) at different organisational units such as procurement (Facility Services), travel reimbursements (Finance), technology solutions (ICTS), compliance (Legal Affairs), student support (SSC), communications (M&C), etc.

Project team staff should be allocated sufficient time to implement this project with sufficient attention to detail. Colleagues should not be overburdened, especially at a time when work pressure is often too high. In some departments, working on this project will be accommodated without additional FTE allocations; in others, where staff are already at maximum capacity. This should be met with an increase in staff capacity.

Once the policy is up and running in 2023, the project team can be formally disbanded. Some departments (especially Finance) will still need to maintain some capacity to the processes related to the UM Air Travel Mitigation Fund.

## 5b. Year 3 onwards: running the initiative

## UM Sustainable Travel Officer



Once the policy has been fully deployed in 2023, resources will need to be invested into the regular management of the carbon-conscious scheme.

Reports will still need to be written, adjustments to the policy (and related processes) will need to be introduced, and the UM Air Travel Mitigation Fund will have to evaluate and fund project proposals. The exact allocation of permanent resources will also depend on process automation (e.g., whether compensation for air travel emissions can be automatized when booking a flight or whether staff from Finance have to arrange this manually).

The maintenance/management of the scheme could become the task of a future Sustainable Travel Officer, with needs-based interventions by other staff.

In addition, finding alternatives to air travel is not always easy. As explained in section 2a, this not only involves more total travel time but also the combination of different modes of transport across different countries.

To ensure the successful implementation of this policy, measures should be taken to ensure that UM preferred travel agencies offer UM staff the best possible alternatives to air travel, with regard to both price and comfort. However, this is a service that is not offered by many travel agencies and, as such, it might hamper regular procurement procedures. Should this indeed prove to be a problem in the future, the UM Sustainable Travel Officer could also support these tasks.

Considering all this, once the cycle is up and running, the Sustainable Travel Officer will be tasked with:

- Supporting UM staff with sustainable travel choices, in liaison with UM preferred travel agencies;
- Continuously promoting carbon-conscious travel choices;
- Being the point of contact for inquiries about the UM sustainable travel policy;
- Supporting staff and students in obtaining sustainable travel funds;
- Monitoring the inflow and outflow of the UM Air Travel Mitigation Fund's resources;
- Networking with other institutions on sustainable travel policies and keeping abreast of policy developments in the sector;
- Reporting on the (changing) travel behaviour of staff and students;
- Implementing the switch from voluntary to compulsory;
- Continuously navigating willingness of departments to participate and actual levels of participation.

The FTE allocation of the Sustainable Travel Officer should be decided at the time of hiring, depending on the exact needs at the time.

### 5c. The case for a UM Sustainability Director/Officer

The UM carbon-conscious air travel cycle is an ambitious policy that will have a deep, university-wide impact. It will require not only the introduction of new systems and instruments, but also an active effort to move academic culture away from highly polluting modes of transport. In parallel, similarly ambitious projects are underway, and many more will soon emerge as further action is taken to fulfil UM's 2030 sustainability goals.

UM's commitment to sustainability must be bold, making it a change leader among (young) international universities. The Sustainable UM2030 Task Force is doing a commendable job in stimulating this change across education, research, and operations. However, more is needed to make sure that multiple initiatives in the field of sustainability are not only implemented, but implemented urgently, and that these initiatives can be sufficiently maintained and coordinated.

In this spirit, this proposal also calls for the creation of a UM Sustainability Director/Officer position. In line with practices at other similarly sized universities, the Sustainability Director/Officer should have a full-time or near full-time position. This new position would oversee and initiate university-wide policies/projects in the field of sustainability, such as the UM carbon-conscious air travel cycle, while reporting to and being in regular contact with UM's senior management in order to ensure that they receive adequate attention and resources. This position could be taken up by the Coordinator of the Sustainable UM2030 Taskforce, which is already well embedded in UM's organisational structure.

## 6. Conclusion

The implementation of the UM carbon-conscious air travel cycle will bring about the urgent, bold, and positive change needed to reduce UM's air travel emissions. At the same time, through the Air Travel Mitigation Fund, it introduces a system to gather financial resources that support greener travel and other sustainability projects at UM.

This policy will need constant review. Its focus on air travel is based solely on the urgency to reduce the widespread use of one of the most polluting ways to travel. However, in order to ensure its long-term validity, it should be neither ideologically against air travel, nor blindly in favour of all transport that does not fly. A logical next step would be to shift from a system that only disincentivizes air travel, to a system that concentrates on reducing CO2 emissions from travel, whatever the transport mode. Specifically, we suggest paying special attention to single-passenger car trips, since their emission levels reach close to those of certain plane trips.<sup>18</sup> UM's research and innovation capacity should be put at the service of improving this policy as 2030 approaches.

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<sup>18</sup> See BBC News Reality Check, Climate Change: Should you fly, drive, or take the train?: <https://www.bbc.com/news/science-environment-49349566>

At the same time, business travel is a small piece of a much larger puzzle. UM should critically review all travel generated by UM, including commuter travel, curricular student travel, and the travel of UM service providers. An effective sustainability policy can only be truly effective if it is holistic.

While this policy addresses an urgent need at UM, UM should also advocate and build alliances with other knowledge institutions and at the VSNU and OCW level to encourage governmental action that works to streamline Dutch and EU HEIs on sustainable travel.

By implementing the carbon-conscious air travel cycle, UM will not only catch up with other Dutch and international universities, but also take a step towards becoming a change leader in sustainability, fulfilling its “service to society” mission. The investment is worthwhile: our future generations depend on it. It is no longer a question whether institutions like UM should do something to tackle carbon issues; rather, in what ways can we radically reduce our carbon footprint? This proposal provides an initial framework to springboard the UM community towards a future of sustainable travel.

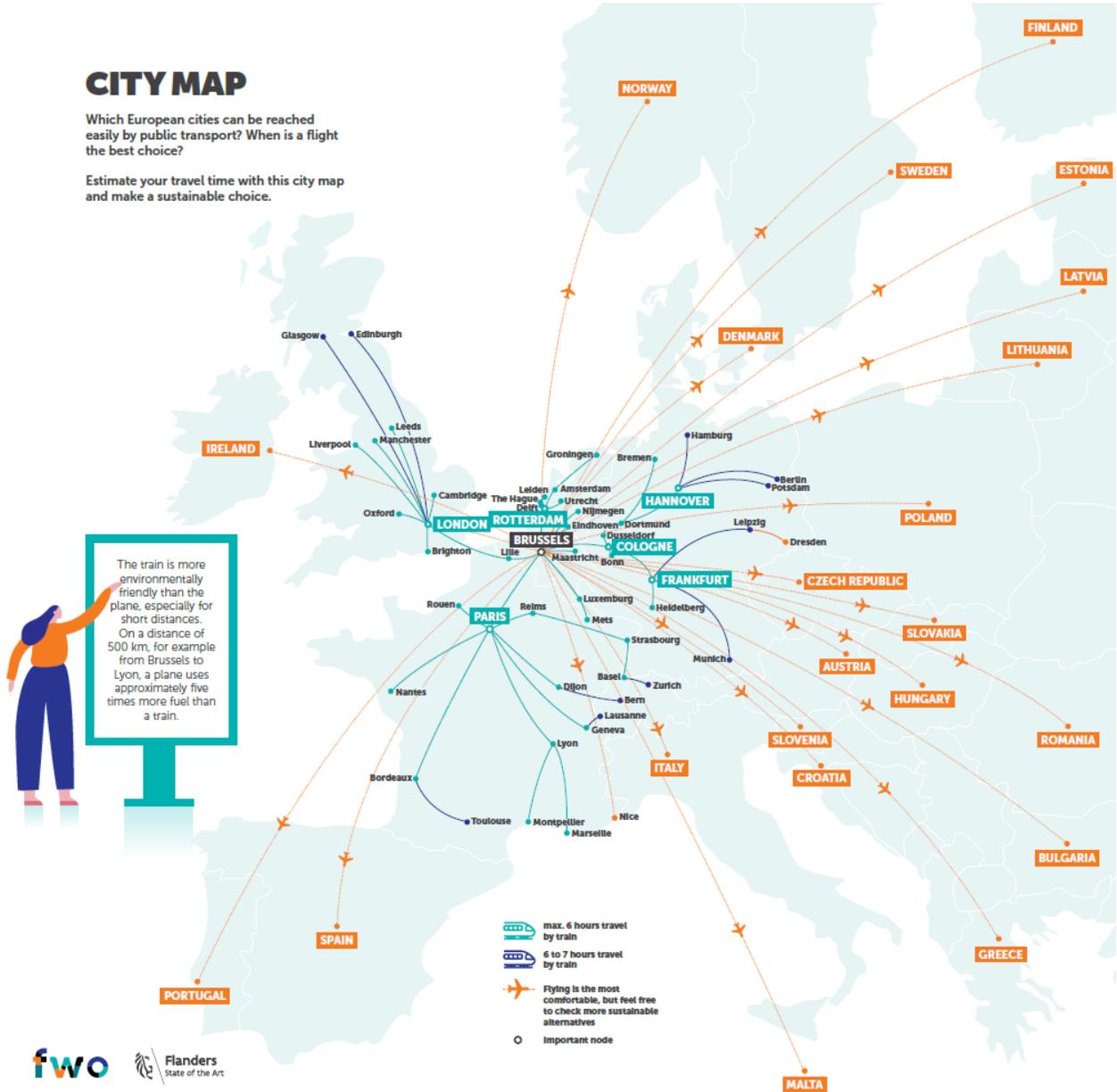
# Annex 1

## Flanders Research Foundation (FWO) City Map

### CITY MAP

Which European cities can be reached easily by public transport? When is a flight the best choice?

Estimate your travel time with this city map and make a sustainable choice.



### Wageningen University & Research City Map



### Utrecht University City Map



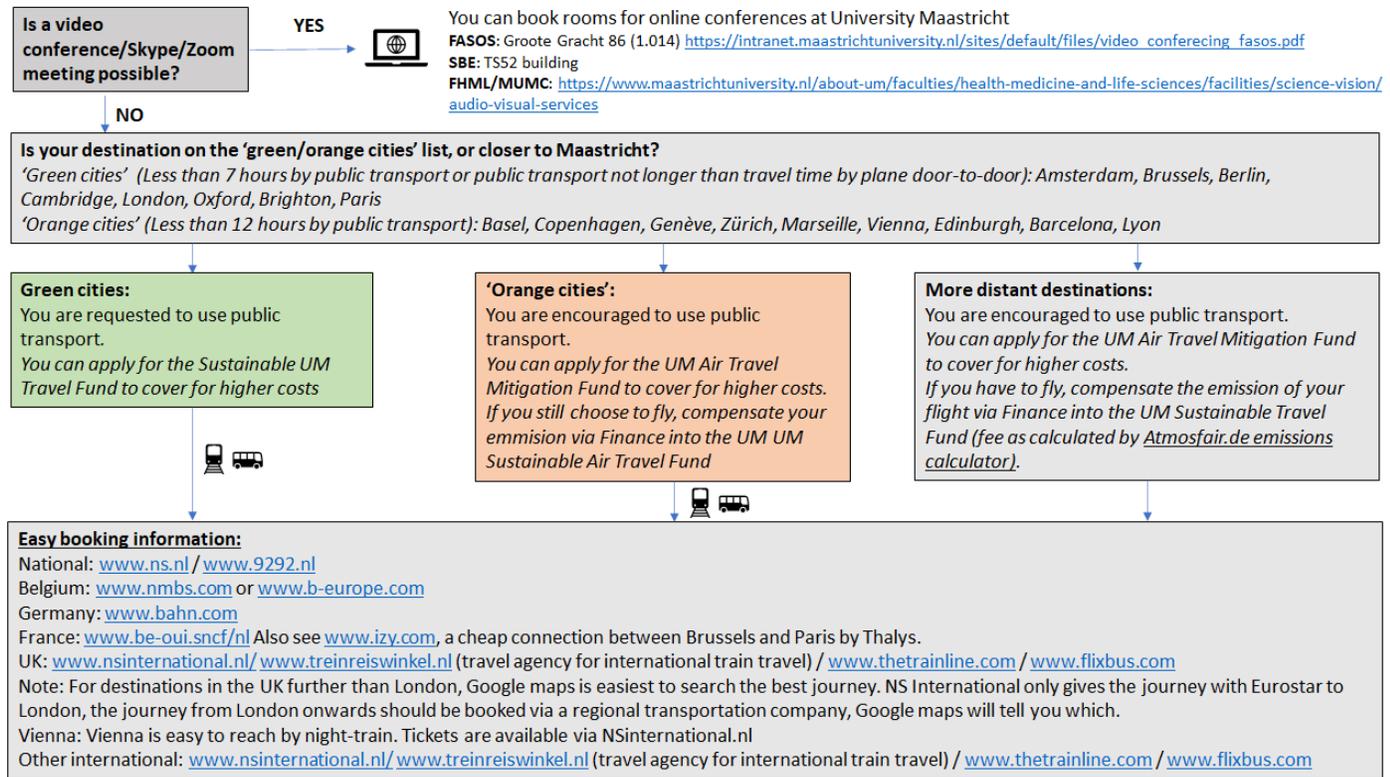
## The Train Zone map

Version 2.0



## Annex 2

## Example decision tree 'Need/how to travel':



## Annex 3

Two case examples on how to travel via our proposed cycle:

### Case 1: A conference in New York

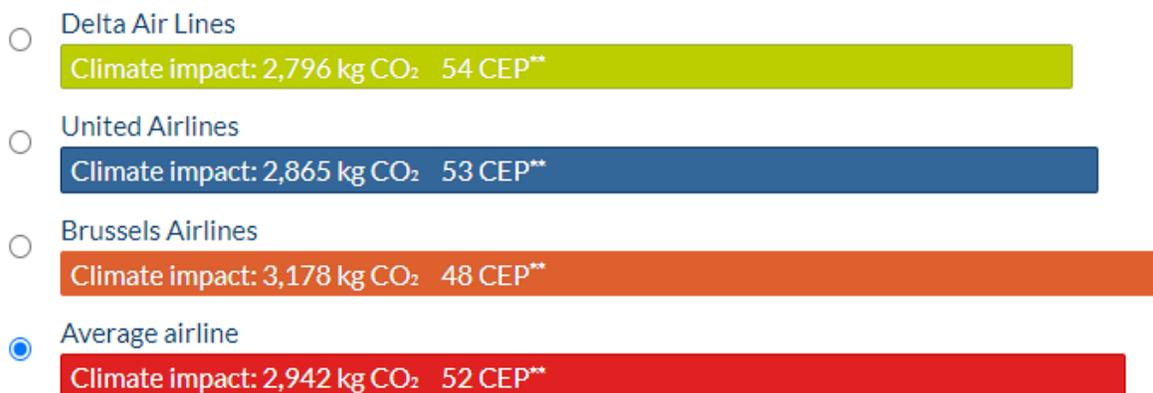
Firstly, the employee is prompted to consider the need to physically attend the conference via the first part of our decision tree (Annex 2). If this results in the choice of going to attending, the best modes of transport should be considered. Of course, to date, flying is the only good option to reach New York, so you will probably buy a plane ticket. The Finance department will calculate the emissions of this flight for you, via [atmosfair.de](#) or [Carmacal](#). This shows that your emission from a round-trip with an average airline is 2.942 kg CO<sub>2</sub> (see below). You will be requested to compensate this emission by paying a compensation fee (a penalty per ton of CO<sub>2</sub> will be determined by UM) to the Finance department, who will transfer it into the UM Air Travel Mitigation Fund. Currently, staff can book flight tickets either via the preferred travel agencies or booking it directly via advance payment and getting the money reimbursed from Finance via EES Declaration and costs.

If booked through the preferred travel agencies, we propose that the Finance department at UM is notified for every flight booked, including booking data. After this, Finance will calculate the emission fee of this flight through the calculator, and charge it to the applicable budget number of the staff member/department. When a flight is advanced by the staff member and needs to be reimbursed, Finance will make the reimbursement in accordance with current practice. In addition, based on the flight data, it will calculate the emissions and charge it to the applicable budget number from which reimbursement was requested.

1 round-trip flight for 1 person

from	- to	Flight class	Flight type	Aircraft type
Brussels (BRU)	- New York - John F. Kennedy, NY (JFK)			
<a href="#">Edit</a>				

### Your flight – climate impact of the most CO<sub>2</sub>-efficient airlines in comparison\*



### Case 2: A meeting in Vienna

Again, the first step is to establish the 'need to travel' via our decision tree (annex 2). If it is required to travel, the next step is to consider the best mode of transport. You can consult step 2 in our decision tree or contact the UM Sustainable Travel Officer to assist you in this. You will learn that Vienna is on the list of "orange cities" (Annex 2), because it takes <12 hours to reach by public transport from Maastricht. They will provide you with information on travel time, costs and CO2 emission with all modes of transport. You are stimulated to take public transport, and for this you can apply to the UM Travel Mitigation Fund. If for example, a plane ticket would cost 60 euros and a train ticket would cost 200 euros, you can request to be refunded the difference of 140 euros from the fund. If you would choose to travel by plane, you would (like case 1 to New York), be requested to offset your flight via our offsetting scheme with Finance.

## Annex 4

### Determining green and orange cities

The travel duration from Maastricht to frequently visited destinations has been estimated as follows:

- For flights: the time estimated for flight consisted of the average flight duration one-way to each destination + 4 hours for door-to-door transport (1,5 hours to allow for transport from Maastricht to Eindhoven/Brussels Airport, 2 hours for check-in/out and 0,5 hours for transport from airport to city centre at destination).
- For public transport: the time estimated for train journeys was estimated as the average duration of a train journey from Maastricht Central station to the station in the city centre at the destination (one-way, via nsinternational.com).

## Annex 5

### Sustainable travel at the UM: individual experiences from an international train user

For the last 20 years, I try to limit CO2 emissions in my private and business travel. This means in the first place, that I assess the necessity of a trip also with respect to a sort of cost benefit analysis (should I travel to Madrid for a half a day workshop?). There are of course very important professional meetings and obligations as part of research projects, where I have to travel within Europe. Last year that was the case for three trips to Budapest, Porto and Bilbao. All the three were events of two or three days where the benefits were obvious. These destinations are classic flight destinations where I could have booked a flight within five minutes on my own or just ask our special supplier to do so. I guess that this would be the current routine of many colleagues. One reason is certainly, that it is rather unknown that all the three destinations can be reached by train. Here starts the problem: who can inform you how to travel best to Bilbao? What combination of mode transport is the best? How can you find a ticket that is not too expensive?

Currently, the UM normal travel agencies cannot really help me. They are not specialised in international train connections. They will just refer to the normal connections and prices that they will get from NS or Deutsche Bahn or the other railway companies. This does not really help since they do not plan beyond their own connections and prices and can especially not combine extra transport options such as additional bus lines or shuttle services that could be essential to make the trip feasible.

That means that I needed professional help for my three trips. There are a small number of specialised travel agencies for instance in NL and DE, that are specialised in international train travel. I booked my tickets via an agency in Germany. They for instance made the trip to Bilbao possible in combining a train ticket from Paris to the Spanish border with a private bus line further to Bilbao. They also figured out what type of ticket would be the cheapest. Finally, that ticket to Bilbao was not much more expensive than a flight. For the Porto trip, I had to take a night train. The agency found out for me that a special inter-rail ticket in combination with another offer was the cheapest. They made the appropriate reservations, printed the tickets and supplements and sent it to me by postal mail. Even the metro tickets for changing stations in Paris were included. If you have ever made an international train trip, you know that the number of different tickets and supplements can be rather high and complex. My conclusion after the three business trips last year: colleagues will never make frequent use of international train connections if there is not a very good service that takes care of the most efficient connection, an affordable ticket price and delivers all necessary tickets in a user friendly way.