

The vegetarian EARSeL workshop

From the very first stages of planning, we were convinced that we wanted to organize a GREEN EARSeL workshop with emphasis on ecological sustainability. While we felt a bit like pioneers back in 2020, we were delighted to realize that many conferences and workshops do follow sustainability guidelines today, only two years later!

We want to thank the EARSeL and committee who were open to the many changes we proposed!

In summary, our sustainability concept involved three major pillars:

- (1) Reduce the footprint in the organisation of the event
- (2) Calculate and offset emissions that cannot be avoided
- (3) Introduce a Green EARSeL Award in addition to the Young Scientist Award

The <u>footprint reduction (1)</u> involved an early information campaign to our participants via a special "green" section of the conference website¹. Besides information on our own efforts, participants could find information how to easily reduce their impacts. Thereby, our efforts included the choice of a **completely vegan-vegetarian diet** (YES! Including the famous EARSeL dinner! Everyone survived this experiment and we received a surprising amount of very positive feedback). To benefit from existing infrastructure and to avoid resource intense transportation, we made use of the **local canteen caterer** for coffee breaks, lunches and the icebreaker. They did a phenomenal job with a simple but delicious selection of dishes and managed to serve **food and drinks (almost) completely waste-free**. Also our simple, **completely (recycling) paper based name badges** got many fans and the idea will be continued at upcoming conferences. Oh, and no one seemed to miss the **missing welcome-bags** (badly) – well, we had a selection of pens, writing blocks and GFZ-cotton bags handy at the registration desk that were rather popular.



Vegetarian lunch buffet



Name badges made of recycling paper

¹ https://is.earsel.org/workshop/12-IS-Potsdam2022/venue/green-earsel/



Via the website, we **asked participants to bring reusable water bottles, coffee-to-go-mugs** and boxes to take leftover food from the buffets **to avoid food waste**. Then, we provided as much information as possible on travelling to and in Potsdam with **public transport**. There are actually quite a few comfortable options and, as we saw in our registration questionnaire, many participants made use of it and travelled even distances > 500 km by train and bus:

country	No of people	distance [km]
Belgium	3	700
Czech Republic	8	400-600
France	1	1000
Germany	41	160-600
Italy	1	1500
Luxembourg	2	700
Netherlands	7	480-670
Norway	3	+1200
Poland	1	630
Switzerland	8	+800

Number of people and distances travelled by train and bus by country of origin

However, not everyone could arrange travelling by train (and we agree that it is not feasible for guests from the US, Israel etc). However, according to atmosfair, approximately 70 % of a conference's emissions result from travelling alone!

We decided for an on-site workshop (and still think that this was a REALLY GOOD decision) with the consequence to <u>compensate for the resulting emissions that could not be avoided</u> (2). This was done in cooperation with atmosfair². Based on experiences from previous workshops, we estimated the participants origins and therefore travel distances along with their likely choice of transportation, assuming that they would fly distances > 500 km and travel distances < 500 km by train and car (50/50). As the registration tool did not allow to collect this information, the participants were given the chance to correct our assumption onsite. Overall, more people travelled further distances by train (430 km on average) and coach (some more than 1000 km) than expected, and fewer by car (230 km on average). The full summary on our emissions and the certificate by atmosfair can be found at the end of this report.

Finally, in order to **increase awareness and really put sustainability on everyone's agenda prominently, we newly introduced a "Green EARSeL" Award (3)**. We wanted to assign a prize for the most sustainable participation in this conference, including (i) reducing the CO2footprint of conference participation, or (ii) any other contribution to sustainability, related to conference participation, everyday live and/or research related to environmental and climate protection, looking for inspiring activities and ideas.

Though we know that sustainability plays an important role in the work and lives of many colleagues, the community reacted to this new feature – well – let's say "carefully". We had

² https://www.atmosfair.de/en/corporate_services/climate-friendly_events/



two (brave!) submissions that entered the competition based on their travel-related CO2 reduction (700 km by train instead of plane each), vegetarian diet and reduction of plastic in their everyday life. Thank you, Frederik Priem (Brussels) and Miriam Machwitz (Luxemburg) for supporting the Green Award idea and sharing some interesting insights – for example, besides reduced land consumption for agricultural practices, the vegetarian diet of 200 workshop participants for three days saved the equivalent CO2 of four smartphones, including production, use and disposal (assuming a life cycle of three years). As an acknowledgement, we donated 2 x 19 \in to bee keepers in Ethiopia as surPRIZE. For his effort to travel more than 1200 km from Norway by bus, we spontaneously awarded Wiktor Żelazny a second prize (10 trees to be planted in Mali) – who was surprised by what in his opinion little effort won him a sustainability award.



Winners of the Green EARSeL Award: 1^{st} prize



Winner of the Green EARSeL Award: 2^{nd} prize

All in all, we think that the "vegetarian EARSeL" (as it apparently will be remembered by many participants) was a great success, scientifically as well as ecologically. We are more than happy to share our experiences (please contact the workshop organizers or <u>secretariat@earsel.org</u>). Still, we also see a lot of space for further improvements. The way is made by walking and we hope that all of you will take further steps in this direction, may it be work-related, in your private live and in organizing the next (EARSEL) conference.

atmosfair CO₂ - Event Report

Event	12th EARSeL SIG Imaging Spectroscopy Workshop	
Organiser	EARSeL, GFZ Potsdam und	
	Universität Greifswald	
venue of the event	Telegrafenberg, Potsdam	CLIMATE-FRIENDLY
Event schedule	22.06.2022 - 24.06.2022	

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14.07.2022

	Position	Value Unit	Emissions	
Gene	eral			
	Duration of the event	3 days		
	Number of participants	200 people		
	Overnight stays	400 nights	14.620 kg CO26	
	Event area	1.000 m ²		
	Type of event building	new building (bu	new building (built 2003 or later)	
	Electricity consumption	792 kWh	18 kg CO26	
	Heat consumption	480 kWh	125 kg CO26	
	Water consumption	34 m³	12 kg CO26	
	Amount of waste	1,0 t	327 kg CO26	
Cate	ring			
	Number of meals	1.000 units	1.920 kg CO2e	
	of which vegetarian	1.000		
	of which organic	0		
	of which locally source	0		
	transportation	0 km	0 kg CO2e	
Arriv	al / Departure and local mobility			
	Flight	358.340 pkm ¹	102.800 kg CO26	
	Train	5.200 pkm ¹	764 kg CO26	
	ICEV	0 pkm ¹	0 kg CO2e	
	EV	57.600 pkm ¹	2.245 kg CO2e	
	Coach	3.000 pkm ¹	93 kg CO26	
	Public transport	340 pkm ¹	23 kg CO26	
	Taxi	0 pkm ¹	0 kg CO2e	
	Shuttle	0 pkm ¹	0 kg CO2e	
	per foot / by bike	0 pkm ¹	0 kg CO2e	
	sport of goods			
Trans				
Tran	Distance	414 tkm ²		

Total emissions of the event

Compensation amount

¹pkm = passenger kilometre

² tkm = tonne kilometre

123.186 kg CO₂ 2.833 €



für kompensierte Treibhausgase

EARSeL kompensiert am 20.07.2022 mit atmosfair **123.170 kg** CO₂ Treibhausgase.

Was bewirkt Ihr Klimaschutzbeitrag?

Mit Ihrem Klimaschutzbeitrag in Höhe von 2.833,00 Euro unterstützen Sie u.a. folgende Projekte:



Effiziente Kochsysteme für Familien in Nigeria

Mit Ihrem Beitrag können 47 Kochsysteme finanziert werden. Diese sparen 80 % Energie ein.



Stromerzeugung aus Senfernteresten in Indien

Mit Ihrem Beitrag können 154 Haushalte ein Jahr lang mit erneuerbarem Strom versorgt werden



Bau von Biogasanlagen für Haushalte in Kenia

Mit Ihrem Beitrag kann der Bau von 9 Biogasanlagen finanziert werden.

Seit dem 01.01.2021 betreibt atmosfair die Genehmigung der Projekte nach dem neuen Regelwerk des Klimaschutzabkommens von Paris. Die hier aufgeführten Projekte haben bereits Zusagen der Gastländer erhalten (inkl. sog. Corresponding Adjustments) oder nutzen CO₂-Minderungen von vor dem obigen Stichtag, um Doppelzählungen auszuschließen.





United Nations Framework Convention Climate Change