

ADVITO

SUSTAINABLE COLLABORATION CO₂ EMISSIONS CAGLIARI

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Executive Summary

Emissions of the Cagliari conference **significantly increased** (+87%) vs the Vienna conference, and not only because of the increase in the number of in-person participants (virtual participants represent only 4%).

The main reason was the necessary **decline in train travel** (- 20.5%) due to the location of the conference.

Another major factor is the **local carbon intensity**, which is **higher in Sardinia** than in Austria, resulting in increased hotel emissions (30% coal in the electricity mix).*

Approx. 9% of the participants had to use a connecting flight, and **long haul emissions** (from distances over 3.700km) **generated 61%** of the air emissions.

Although the number of **virtual participants** somewhat increased, the absolute figures are still small.

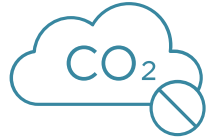
*Source: <https://app.electricitymaps.com/zone/IT-SAR>

EGOS - Cagliari conference

Environmental impact



2,653
Participants



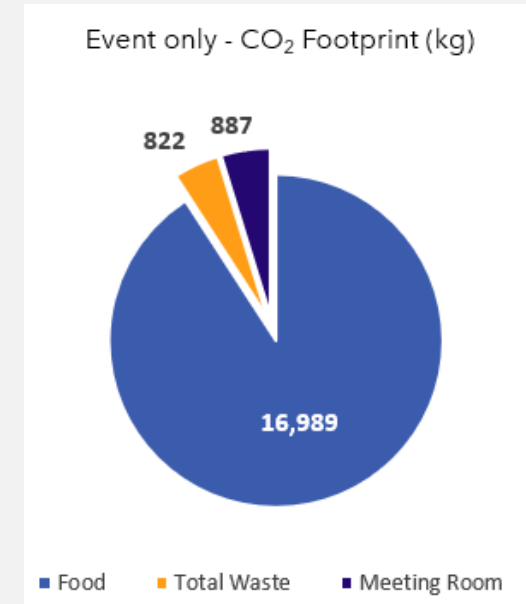
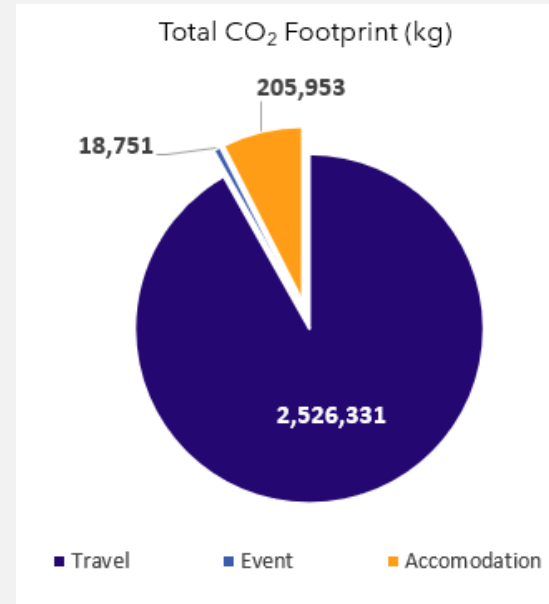
2,751
Tons of CO₂



92%
Emissions come from Air Travel



2,0
Million Liters of water used



EGOS - Comparison Cagliari vs Vienna

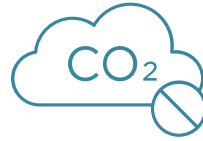
CAGLIARI

CO₂ per person:
1,037kg



2,653

Total Participants



2,751

Tons of CO₂

+87%
+ 1,280
t CO₂



92%

Emissions from
Air



2.0

Million Liters of
water



109

Virtual Participants

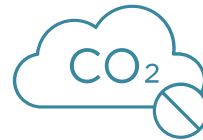
VIENNA

CO₂ per person:
715 kg



2,056

Total Participants



1,471

Tons of CO₂



93%

Emissions from
Air



1.7







Million Liters of
water



99

Virtual Participants

EGOS - Why this high increase in CO2 emissions ?

	VIENNA	CAGLIARI	
	2,056 total participants	2,653 total participants	+597 participants / +29%
	20% long-haul segments	19% long-haul segments	-1 percentage points
	2,605km flown (average)	3,014km flown (average)	+15.7%
	21% traveling by train	0.4% traveling by train	-20.6 percentage points
	9.4 kg CO ₂ /room night	26.4 kg CO ₂ /room night	+17 kg CO₂/room night / +180%
	99 virtual participants	109 virtual participants	+10 virtual participants /+10%

The significant increase in CO2 emissions (+87%) is mainly due to:

- the higher number of participants,
- the minimal share of rail travel because of the location, and
- the fact that the carbon intensity of electricity in Sardinia is 4 times higher than in Austria.

Assumptions used

- *All trips are in Economy.*
- *All trips are return trips.*
- *When a direct flight option exists, it has been used.*
- *When a connection is required, the shortest/most rational option from Google Flights has been chosen.*
- *Hotel category: 50% is upscale, 50% is midscale (10% difference in emissions / room night).*
- *20% of the participants are sharing a hotel room (same as last year). Everybody is arriving the day before, and 25% of the participants are staying until the day after (until the 9th).*
- *250 liters of water are used per day per participants (hotel study done by Advito).*
- *Number of daily meeting rooms taken from the conference program. Plenary meeting room size: 150 m², otherwise 50 m².*
- *No gift was provided to participants.*
- *Emissions from waste as calculated by the University of Cagliari.*
- *Local transportation: 1/3 of participants walking, 1/3 electric bus, 1/3 taking taxi (2 people/taxi), distance used is 1km.*
- *Airport transportation: 50% of participants taking the train, 50% taxi (2 people/taxi), distance used is 10km.*
- *Air travel is taken for all non-Sardinian participants. As a result of the high level of uncertainty around the routing and itinerary of the travellers, excluding and separately calculating 10 participants traveling differently (i.e. the sailing group) would have had extremely marginal impact on the final figures.*
- *For virtual participants, considering camera is used 25% of the time, one hour of virtual participation is calculated as having 0.033 kg co2 emissions*

What you saved

118

Tons of CO₂ because of the 109 virtual participants. This is the equivalent of driving **590,000km.**

If the program lasts 15 hours, one virtual participant emits about 0,49 kg co₂. 2000 online participants would emit 977 kg co₂ - **less than 1 ton.**

Increasing the number of online participants as part of the strategy drastically helps to decrease emissions.

What you could have saved / could save next time

Significant amount of CO₂ emissions could be avoided by organising the meeting at a **location with better connectivity.**

The event location, Cagliari is **almost exclusively accessible by air travel**, with rail or car offering no direct accessibility.

Notable amount of CO₂ emissions could be avoided by organising the meeting at a **location with better carbon intensity (cleaner energy).**

50%+ connecting passengers to CAG

58% higher emissions / Upscale hotel night compared to mainland Italy

Climate and Environmental Actions

The local organizers in Cagliari invested a lot of effort into local sustainability initiatives such as:

Afforestation in and around Cagliari (in September 2023)

- 6,998 units of 14 different types of plants in Sestu, Cortexandra
 - 6,400 units of 15 different types of plants in the Monte Urpinu Park, Cagliari
 - 4,000 units of 9 different types of plants in the San Paolo area, Cagliari
- > 20,388 plants in total

Beach cleanup and waste collection in Poetto Beach with MEDSEA (end of June 2023)

200 participants, collecting 1 tonne of plastic waste

Smart waste collection with bins equipped with optical sensors

Maximization of the choice of vegetarian and vegan menus for conference attendees

68 kg surplus food was given to the charity Caritas Cagliari

5 local companies awarded for their exceptional sustainability practices

While the Science Based Targets initiative currently does not recommend the use of carbon offsets in general, and certain standards need to be fulfilled for calculating and legitimately offsetting emissions via planting trees, these initiatives had a positive local impact in raising awareness on SDGs and the climate crisis.