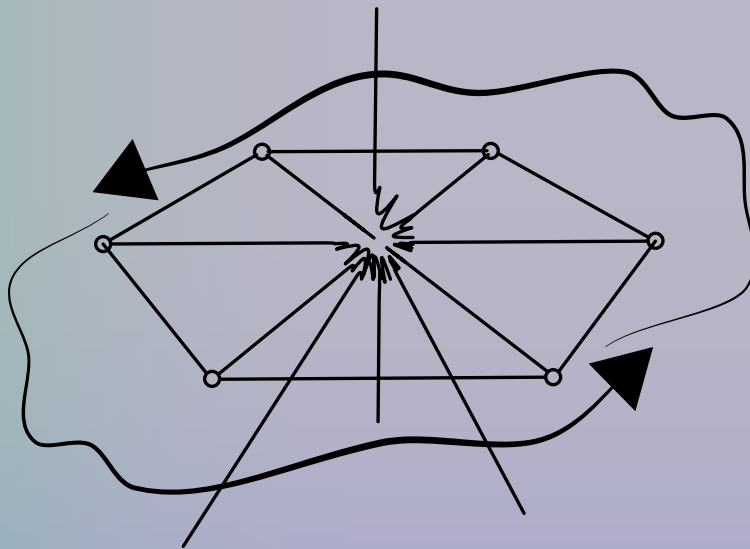


onEarth foundation 2023

A MANUAL FOR REGENERATIVE GATHERINGS



Festival sustainability report
and impact tracking for small
scale outdoor events

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for small scale outdoor events

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**Music
moves
Europe**



**Co-funded by
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Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union and therefore the European Union cannot be held responsible for them.

Executive summary

About onEarth Foundation, LIOS Labs, and Sharing of the Fruits: Established in 2019 in Kraków, the **onEarth Foundation** works to apply sustainable, interdisciplinary practices at the intersection of art, science, technology, design and social sciences, with the goals of raising environmental awareness, supporting adaptation to climate change, and seeking new ways of coexisting on Earth.

In years 2020 - 2022, OnEarth has produced **LIOS Labs**, an annual programme of artistic residencies in Poland's Błędowska Desert (Pustynia Błędowska), one of the largest deserts in Europe, between the cities of Kraków and Katowice. Focusing on fostering collective means of artistic creation and exchange of regenerative practices, LIOS Labs envisions a societal shift towards living in reciprocity with humans, other-than-humans, and the earth.

LIOS Labs' pilot event, *Sharing of the Fruits* (SotF) took place in summer 2022 as an experimental, non-commercial micro-festival, as a culmination of three rounds of artistic residencies. Supported by European Union funding via **MusicAIRE** (An Innovative Recovery for Europe), this event sought to prototype a new paradigm of sustainable, climate positive festival culture.

What the report contains: The goal of this report is to share our approach and learnings from LIOS Labs and Sharing of the Fruits 2022, in order to support other organizers producing small-scale, highly sustainable gatherings. *Section 1: Introduction* provides background information on sustainable events and the value of micro-events in the festival sector. *Section 2: Frameworks for Event Sustainability* uses the UN Sustainable Development Goals (SDGs) to lay out a framework for socially, economically, and environmentally sustainable events, and how LIOS approached these goals. *Section 3: Learnings and Findings* shares results from a sustainability audit, survey, and on-site interviews. *Section 4: Conclusion* offers tips and a checklist for organizers to plan and measure sustainable events.

How it went: The goal was to produce a micro-festival with social and environmental sustainability centered from the beginning, and the team brought this to life with solar- and battery-powered performance infrastructure, local and vegetarian menus minimizing packaging and waste, holacratic and highly participatory social structures, an artistic lineup with 50/50 gender parity and emerging artists, and much more. Participants played their part by arriving via bus, train, and carpools, largely from Berlin or elsewhere in Poland. Biggest challenges and learnings related to event production in a challenging climate, the level of communication required for new community and event practices—and a rainy festival weekend that required festival organizers to rely on grid power as a backup.

A sustainability audit estimated the overall event having **45.1t of carbon emissions**, with the most significant proportion of emissions (45%) coming from mobility. Dividing the overall figure by 130 people that attended over the course of 4 days, we get 87 kgs of carbon emission per person per day for the whole event. This is significantly lower than comparable events anywhere in the world. Over half of survey respondents felt they learned something new about ecology and sustainability at the event, 75% learned more about holacracy and community self-organization, and 75% felt motivated to take action or make different choices in their lives following this event—primarily around water usage, waste reduction, and shopping more locally. In the words of one participant: "*Being on the desert was a crucial reminder of what it is to be human.*"

Table of contents

Executive summary	4
--------------------------	----------

Section 1: Introduction	6
--------------------------------	----------

<i>Why sustainable events?</i>	6
--------------------------------	---

<i>Scale Matters: The role of micro-festivals</i>	7
---	---

About OnEarth Foundation and LIOS Labs	7
--	---

About Sharing of the Fruits: an experimental micro-festival	8
---	---

Section 2: Frameworks for Event Sustainability	10
---	-----------

When can you call your event sustainable?	10
---	----

A triple framework for event sustainability	11
---	----

<i>Environmental Sustainability</i>	11
-------------------------------------	----

<i>Social Sustainability</i>	13
------------------------------	----

<i>Economic Sustainability</i>	14
--------------------------------	----

Section 3: Learnings and Findings	15
--	-----------

Who took part?	15
----------------	----

<i>What motivated us to go?</i>	17
---------------------------------	----

<i>How did we get there?</i>	17
------------------------------	----

Sustainability by the numbers	18
-------------------------------	----

<i>Successes, challenges and areas for growth</i>	21
---	----

<i>Impact on Participants</i>	24
-------------------------------	----

PRO TIPS	26
-----------------	-----------

Section 4: Conclusion and Takeaways	28
--	-----------

Takeaway: Practical outdoor event sustainability checklist	28
--	----

Further reading	32
------------------------	-----------

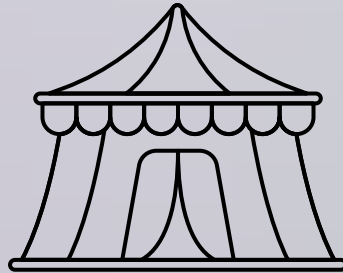
Acknowledgements	33
------------------	----

Contributors	33
--------------	----

References	34
------------	----

Section 1: Introduction

Why sustainable events?



"Festivals have been [a] place for me to experiment because I think so many people there are dropping a lot of their inhibitions from city life. People come for adventure and experience. You're more open to whatever might happen because you know that you're stepping outside of your regular space of experiences and outside of your comfort zone."
—Ali, resident

Festivals play a special role in our culture. They offer space and time outside of daily routines for powerful artistic, social, and communal experiences. Drawing on ritual, music, dance, and other expressions of culture, festivals can be a source of social cohesion, personal reflection, and joyful celebration that reverberates back to everyday life. By incorporating sustainable practices into their operations, showcasing sustainable products and businesses, educating through workshops and talks, celebrating cultural traditions, and encouraging collective action, festivals can have a positive impact on both individuals and communities.

However, festivals are not always sustainable. Typically, festivals include artist travel (often via plane), audience travel en masse to a site, and tremendous impact on the physical area and ecosystems of the festival ground, including large amounts of waste. Key areas for attention:

- 1 Travel:** for most of the big scale festivals, travel and so called "festival tourism" are the biggest contributor to the overall sum of emissions. One [study](#) has linked audience travel to almost 80% of festival related emissions.
- 2 Waste and pollution:** Despite festivals' efforts to reduce waste, large quantities of rubbish are [generated](#) during events. This can have a negative impact on the local ecosystem, including the local wildlife and waterways.
- 3 Noise pollution:** The festivals can generate high levels of [noise pollution](#), which can disrupt local ecosystems and affect the behavior and well-being of wildlife.
- 4 Soil erosion and damage:** large number of visitors and heavy machinery used during festivals can cause [soil erosion and damage](#) to the local ecosystem, including vegetation and wildlife habitats.
- 5 Energy consumption:** Large festivals require a [significant amount of energy](#) to power the stages, lighting, sound systems, and other equipment. This can have a significant impact on the environment, especially if the energy is generated from non-renewable sources.

Larger-scale festivals and events, when adopting sustainability measures, have the advantage of being able to reach broader audiences with their message, and potentially have more significant impacts and greater resources. But they face an uphill battle. With hundreds of thousands of visitors annually, large festivals have an inherent environmental impact due to their size. Environmental impact can also be unexpected: following the 2019 Glastonbury Festival, a [study](#) discovered cocaine and MDMA in nearby bodies of water, in levels high enough to disrupt conservation efforts of endangered species. Researchers suggested that public urination onsite can leach into the water table from festival sites.

Recently, with the public's growing awareness of its urgency, sustainability has become a [major focus](#) in festivals and events of all sizes. Many festival organizers have recognized the negative impact of large events on the environment and are taking steps to reduce their carbon footprint and promote sustainable practices. Events like [Roskilde Festival](#) use renewable energy sources, reduce waste through recycling and composting, and offer sustainable transportation options to festival-goers. Portugal's [Boom Festival](#) offers sustainable food and beverage options (85% vegan and vegetarian), compost toilets and solar-powered showers to campers, and has also implemented soil creation and waste reduction programs.

Scale Matters: The role of micro-festivals

While the greening efforts of large-scale festivals and events are essential to move toward industry-wide sustainability goals, smaller events play another, no less valuable, role. Smaller-scale events can bring more audacious visions to life, pushing for more radical departures from the way we currently do festivals. LIOS Labs aims to do exactly this: to dream up and demonstrate a new paradigm of sustainable festival culture that turns festival consumers into real participants of the community, in a way that is not just climate-neutral, but climate-positive. To do that, we create micro-events with economic, environmental, and social sustainability principles woven into their design from the start.



This work of sustainability is an ongoing one, and we don't pretend to have all the answers. This report documents the successes, challenges, pitfalls, and works-in-progress of a first-year festival. In the spirit of candor and learning from one another, this document is intended as both a baseline for us—*how can we grow from here?*—as well as a guide for other organizers and groups aiming to produce their own events.

About OnEarth Foundation and LIOS Labs

The [onEarth Foundation](#), established in 2019 in Kraków, works to apply sustainable, interdisciplinary practices at the intersection of art, science, technology, design and social science. Our goal is to raise awareness about the environment and to support adaptation to climate change. The onEarth Foundation seeks new ways of coexisting on Earth. In years 2020 - 2022 the onEarth has produced [LIOS Labs](#), artistic residency programmes in Poland's Błędowska Desert (Pustynia Błędowska), one of the largest deserts in Europe, between the cities of Kraków and Katowice.

Błędowska Desert (Pustynia Błędowska)

Located between Kraków and Katowice, the Błędowska Desert is one of the largest deserts in Europe, **caused** by intensive logging for nearby mining industries in the 13th and 14th century. Erosion, caused by deforestation, exposed a vast amount of glacially deposited sand. At its biggest, the desert was 150 km². In the twentieth century, the area was re-forested and now, only around 30 km² of the desert remains, surrounded by forest. From the desert, Silesia's industrial landscape and the chimneys of the toilet paper factory in the nearby village of Klucze are visible. This post-apocalyptic, almost surreal location's history confronts visitors with the impact of humans on their environment—and asks how we might gather and live differently.



About *Sharing of the Fruits*: an experimental micro-festival

LIOS labs' pilot event, *Sharing of the Fruits* (SotF) took place in summer 2022 as an experimental, non-commercial micro-festival, as a culmination of three rounds of artistic residencies. With approximately 130 participants, the micro-festival *Sharing of the Fruits* (29 July - 1 August) was held in the anthropologic Błędowska Desert in Poland—in rather harsh weather conditions. This event didn't look like a traditional music festival—rather, somewhere between a music festival, arts residency, experiment in communal living, and perhaps even an art project in itself. LIOS Labs and SotF aim to create spaces that facilitate deeper connection with nature, other people and ourselves. Here, the desert serves as a playground and a place to experience, create, and work with others.

"There's a symbolic aspect of this: the experimentation of process, but also the artistic aspect is probably the most unique. Really trying to think about the way we are living, in the way we're interacting, as art. ...Some people have come here to do projects...[but] the way you're experiencing the desert, the environment, and the needs of the collective is an art in itself." —Alex, volunteer

To create an intimate, authentic setting, Sharing of the Fruits aimed for a maximum event size of 150 people, including artists, organizing team, and attendees. This structure is based on [Dunbar's number](#), the theory suggesting that humans can maintain about 150 meaningful relationships, as evidenced by various forms of human groups, gatherings, and dwellings of past and present.

Pre-event: A core organization team of 3 people prepared for residencies prior to gatherings.

Round I: 3D OASIS (building infrastructure), 27 June - 5 July

Physical space creators, builders, architects, designers, individuals and teams dedicated time to cocreation of the camp.

Round II: 4D Wellbeing (dancing with the elements), 6 - 16 July

Artists and activists from diverse fields proposed projects and activities focused on the wellbeing of a flourishing community.

Round III: 5D Awareness (living the dream), 18 - 28 July

This round invited artists and activists from diverse fields to propose projects and activities based on the prompt: sustaining resilience, breathing in chaos, breathing out beauty. This round also included festival preparation and build.

Sharing of the Fruits Festival: 29 July - 1 August

This festival weekend welcomed a total of 130 artists, attendees, artist residents returning from prior rounds, and staff.

Goals & ideas:

Experimenting with less hierarchical, more collective social structures. LIOS Labs and Sharing of the Fruits experimented with less hierarchical frameworks that required all participants' involvement and shared responsibility. This meant navigating challenges in practice: communication, managing different levels of energy and ownership, accomplishing less-desirable tasks, and working in challenging desert conditions. This process was demanding on organization teams, volunteers, and festival co-creators—but also gave rise to beautiful collective experiences.

"[The goal is] that the people who come are less consumers than they are participants. It's not that they're coming and something's provided for them, it's more that they're coming and they're helping create the space...they feel a bit more responsibility towards the space and each other, with a greater sense of care. Moving away from a consumerist mentality where you pay for something and you just receive the service - and taking it more [like] participating in a village or an ecosystem or community." —James, production

Sustainability as a mission. Festival production and short-term gatherings are not always the most sustainable—environmentally or socially. LIOS Labs works with a focus on sustainability and preservation of local ecosystems. The goal: develop event practices and frameworks that center sustainability from the start, then improve upon our own practices year to year, while sharing our progress and learnings with others to borrow and further develop.

Working and sweating with others: For many people, particularly since the beginning of the Covid-19 pandemic, work has become increasingly disconnected from the physical presence of others. The shared project of bringing artistic and communal visions to life requires an enormous amount of physical, mental, and emotional investment—but this goal can create a solidarity, belonging, and closeness among participants.

Section 2: Frameworks for Event Sustainability



When can you call your event sustainable?

In 1987, the UN Brundtland commission described **sustainability** as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”. It can be difficult to determine when an event can be considered sustainable, as sustainability is a multi-faceted concept that can be interpreted and measured in many different ways. However, some general criteria that can be used to evaluate the sustainability of an event include:

- 1 Environmental impact:** The event should aim to minimize its impact on the environment by reducing waste, using renewable energy sources, conserving water, and promoting sustainable transportation options.
- 2 Social impact:** The event should aim to promote social sustainability by being inclusive and respectful of diverse communities and promoting social issues such as human rights, refugee rights, and diversity.
- 3 Economic impact:** The event should aim to be economically sustainable by being financially viable, generating a positive economic impact for local communities, and supporting local businesses.
- 4 Transparency and communication:** The event should be transparent about its sustainability efforts, and should have open and clear communication with stakeholders about its environmental, social, and economic impact.
- 5 Continuous improvement:** The event should have a plan for continuous improvement and should strive to improve its sustainability performance over time.

These principles appear in various **areas** of event production:

- | | | |
|---|--|---|
| 1 Mobility and transportation | 4 Procurement
of products and services | 7 Water management |
| 2 Energy and power | 5 Waste management | 8 Communication |
| 3 Event venue
and accommodation | 6 Catering
- food and beverages | 9 Social aspects such as
gender equality
and accessibility needs |

A triple framework for event sustainability

That 1987 definition of sustainability informed the UN Sustainable Development Goals (SDGs), a global agreed-upon framework for moving toward a more *environmentally, economically, and socially* sustainable world. Festivals can address several of the UN SDGs through operations and programming, so the onEarth Foundation uses this understanding of sustainability as a starting point.

“Environmental and social sustainability, I would look at it from a systems perspective—energy in and energy out—and not consuming more than the energetic system can provide.” —James, production

This section offers an overview of the dimensions we considered in event sustainability: what we did as organizers, how we asked participants to contribute, and an honest assessment of how things went this year. We align this with the UN SDGs in order to show how festivals connect to wider global efforts. A quick-reference checklist for organizers is at the end of the report.

Environmental sustainability



Dimensions to consider: Travel of artists, organizers, and attendees; Event venue and accommodation; Energy source and usage onsite; Food and its packaging onsite; Bar and beverages onsite; Waste generated; Event impact on local area (Leave No Trace principles); Wastewater; Promoting education and behavior change.

What we did:

- **Used solar panels with grid energy backup**
- all battery-powered via solar panels with grid energy backup¹.
- **Avoided single-use packaging** whenever possible.
- **Fully vegetarian meals** with an emphasis on **local produce** (i.e. choosing seasonal and locally available fruit over options from further away: apples and cherries, not bananas).
- **Worked with local producers and vendors** for food and bar to reduce shipping miles and emissions, and were sourced mostly within a 50km radius. The fruits and vegetables were delivered by the team members from local farmers markets.
- **Worked with a local food truck** to offer plant-based meat alternatives. A first for this business, they've kept it on their menu since the event!
- **Provided only reusable cups onsite** — our local partner, Polish company [Zelan](#) provided the micro festival and prior residencies with a generous amount of reusable cups. Cups were left in dropoff boxes near the bar and kitchen and picked up for sanitation and reuse.
- **Used locally sourced water and encouraged responsible water consumption.** Access to potable water from the municipal water system was located around 600m from the festival site, and was transported via vehicle (dune buggy) in certified water containers.

- **Pit/composting toilets constructed from natural materials.**
- **Communication** with festival participants and guests took place in Telegram groups, a Discord server, on the event website, and verbally upon arrival, thanks to the small size of the festival. Throughout the process, Telegram and Discord were key tools for event production and group communication, promoting shared ownership of each process phase and enabling participants to follow changes and developments in real time.
- Minimal posted notices were laminated for durability.

We asked participants to:

- **Bring their own** dishware, cutlery, and water bottles to eliminate disposables onsite.
- **Avoid or minimize bringing packaging.**
- **Choose public transit, minibus, and rail; avoid flying.**
- **Leave-No-Trace:** leave the site better than you found it.
- **Separate waste** onsite including paper, glass, and bio/compost.

How we measure success in this area:

- Energy usage and estimated emissions
- Transportation: where organizing team, artists, attendees, and vendors/resources are coming from, and how they travel
- Water usage (estimated)
- Purchasing for onsite goods and construction (i.e. food, bar/beverages, physical space construction)
- Waste generated

How we did this year (more on this in Section 3: Learnings and Findings):

- Solar panels were the main energy source, but a rainy, cloudy festival weekend required grid energy. To avoid using diesel-based generators, we drove batteries to charge at the nearest municipal building in the desert area. Grid energy in Poland comes mostly from coal.
- Sound equipment was rented from a company in the closest city, reducing emissions.
- Light: we used mostly solar-powered lights.
- Wood and metal were sourced locally, involving scrap yard and second-hand materials.
- Most participants traveled from countries neighboring Poland, primarily by car, train, and bus.
- The festival was unlikely to have much impact on surrounding nature. Because the local municipality strives to preserve the desert ecosystem, events and the presence of groups are seen as desirable to keep grasses from growing.
- We limited waste to a minimum and used reused or reusable materials as much as possible. 46% of survey respondents self-reported that the waste they generated at the festival was under appx. 2L ("it would fit in a chip bag or smaller").

¹ Our event site offered outlets connected to the local power grid around 500 m from the festival site, which we used as a backup and supplement to solar. (This was essential in two straight days of rain!) We recognize this can be tricky for organizers without such access.

Social Sustainability

Dimensions to consider: Community norms and power structures; Representation onstage and backstage; Awareness; Promoting local participation at a locally-accessible cost; Managing impact on the local community (ex. sound and noise, traffic); Harm reduction approach to substance use.



What we asked of participants:

- To abide by the awareness policy
- To be respectful of one another and to be mindful that we are guests in the desert, in the local community (and the planet!)
- To help us maintain the event site and make sure everyone is included

How we measure success in this area:

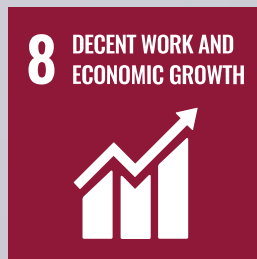
- Strong and well-communicated policy on awareness and consent
- Effectiveness of awareness team to address discrimination, harassment, or other boundary violations; degree to which individuals felt supported onsite (particularly BIPOC, LGBTQIA+, individuals with disabilities, and other marginalized groups)
- Attendees' perceptions of being co-creators/active participants rather than consumers
- Metrics on representation in artist lineup, organization, etc.
- Perceptions or feedback from local community

How we did this year (more on this in Section 3: Learnings and Findings):

- We involved artist residents in festival co-creation and decision making processes through holacratic circles each responsible for chosen tasks.
- LIOS Labs has been present on the festival site since 2020 and has developed some familiarity/relationship with the local community. However, English as the main festival language (rather than Polish) does present a barrier.
- The festival site was located around 1,5 km from the nearest residential building, also separated by a hill and forest. Sound volume was monitored throughout the event.
- No incidents of sexual harassment or violence were reported to the organizers.
- There were in total 30 artists across 22 acts with an approximately equal gender ratio (male to female) as well as several nonbinary artists and mixed-gender groups. Four workshops were held (1 male and 3 female facilitators).
- LIOS labs and onEarth Foundation are female-led and founded organizations.
- The core production team consisted of 2 female and 3 male staff members.
- Security was onsite throughout the festival weekend. Due to weather conditions the touristic and general traffic that weekend was low and security had to carry only one intervention (due to presence of unauthorized persons at the event).

Economic Sustainability

Dimensions to consider: Equality of pay and responsibilities; Length of work shifts and workload sustainability over residencies and festival weekend; Inclusive communication.



What we did:

Paid artists, vendors, and organizing team

Reduced ticket price for attendees coming from Poland in comparison to Eurozone.

Gender parity in wages and decision making positions.

How we measure success in this area:

Paying all artists

Equal treatment and openness in matters of remuneration

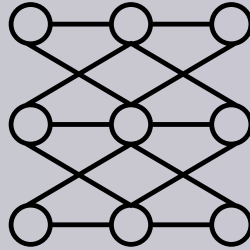
How we did this year:

All artists received equal remuneration

Key financial decisions were made by a majority-female team (two female and one male)

MusicAIRE EU funding enabled us to cover all artist travel costs.

Section 3: Learnings and Findings

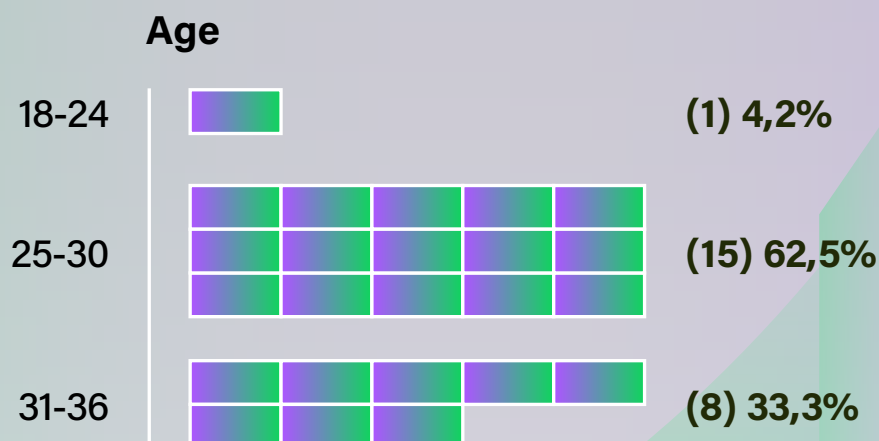


Documenting this festival: Two external researchers, in partnership with the festival organizing team, used a mixed-methods research approach, including 1) brief on-site interviews with a mix of LIOS residents, artists, and festival volunteers, 2) participant-observation, 3) an on-site sustainability audit conducted by an environmental consultant, and 4) an anonymous survey conducted following the festival with a ~18% response rate (n=24).

Quotes throughout this report are from interviews and surveys, and have been condensed and edited. Due to the small sample size, impressions may not be representative of all festival participants.

Who took part?

Survey respondents identified as entirely Gen Z and millennials, with a majority ages 25-30, a significant proportion between 31-36, and fewer between 18-24. When asked what citizenships they hold or other nationalities/heritage they identify with, respondents shared roots in 22 countries, shown below. And while approximately a third of respondents each identify as female and male, **over 72% of respondents indicated a non-binary, gender non-conforming, or otherwise expansive gender identity** (participants were invited to check all gender identities that applied).





Gender**

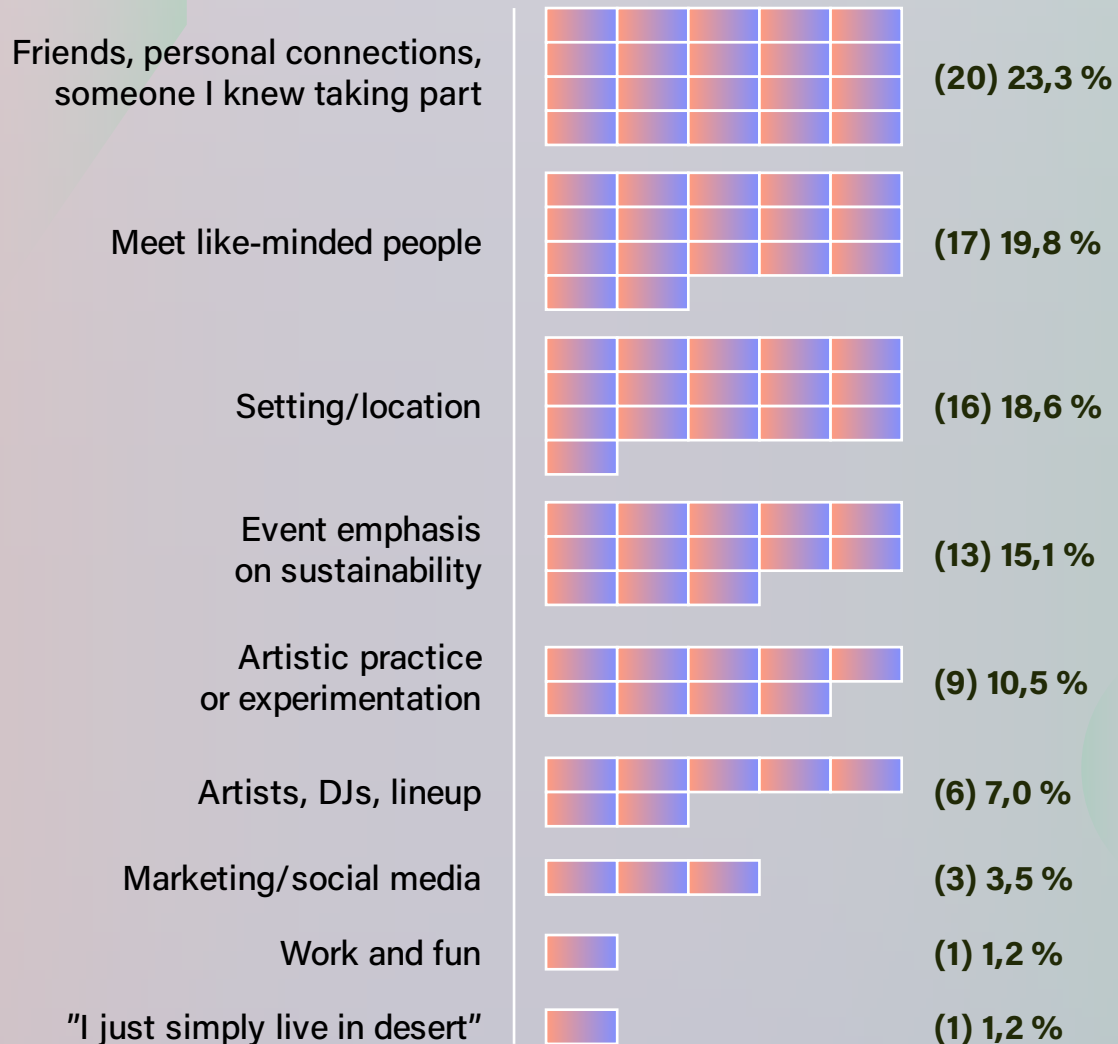


*Agender, genderqueer, gender-fluid, pangender, gender-questioning, "Mita Cera"

**Note: participants were invited to check all options that applied or enter their own, meaning these numbers exceed 100%.

What motivated us to go?

What motivated you to come to this event (check all that apply)



How did we get there?

75% of respondents currently live in Germany (primarily Berlin), followed by Poland (Kraków, Olkusz, Warsaw), Czech Republic, and Italy. Correspondingly, 63% of respondents traveled to and from Berlin and surrounding areas, while the next largest percent traveled to and from Kraków or elsewhere in Poland (23%), followed by individuals traveling to or from Köln, Czech Republic, Spain, and northern Italy.

The majority of respondents traveled to the festival by **intercity train and bus (54.2%)**, followed by **car or van travel (45.9%)**. Carpools drove to the festival with an average of 2.83 people on the way there, and 3.73 people on the return. Transit trips were supplemented by minibus or taxi rides from nearby cities (Kraków, Katowice) to the festival site. Only two survey respondents reported flying one way—and one told us that they reconsidered the choice: *"Guilt over needing to fly to the desert led me to taking trains between the Netherlands and Germany and back!"*

Sustainability by the numbers

GENERAL

Name of the Event	LIOS Labs: Sharing of the Fruits
Country	Poland
Event Duration	4 Days
Participants	130
Staff	5
Heated Area	0 m2
Air Conditioned Area	0 m2

MOBILITY*

Number of people arriving by car	59
Average distance travelled by car (best estimate) <i>(Berlin-Błędowska Desert distance used as average, given >50% festival artists and attendees traveled from there)</i>	570 kms
Number of people arriving by public transport	71
Average distance travelled by public transport (best estimate)	570 kms
Number of short-haul flights (up to 3h)	2
Number of medium-haul flights (3 - 6h)	<i>none reported</i>
Number of long-haul flights (6h)	<i>none reported</i>
Percentage of business class flights	<i>none reported</i>

ACCOMMODATION

Number of overnight stays in hotels	0
Number of Shared Festival Tents	30

* Figures for car and public transit riders have been extrapolated based upon survey respondents' answers (~18% response rate). Flight figures have been estimated based upon survey respondents' answers and artist travel reporting via organizing team.

CATERING

Amount of non-veg meals	0
Amount of vegetarian meals (People × Meals/day × Days)	1560
Amount of snacks (Est. 2 per person/day)	1040
Water/Soft Drinks (10L/person/day figure provided by festival organizers; includes showers)	5200L
Coffee (using EU average of 1 cup per person/day, adjusted for festival considerations)	520
Tea (Estimate of 1 cup per person/day, adjusted for festival considerations)	520
Wine	0 (none provided on site)
Beer (Estimate of 1 liter per person/day)	520
Spirits (Estimate of 0.125 liter per person/day)	65

ENERGY

Energy Consumption	620 kWh
Cooking Gas Used	20L
Gasoline Used	40L
Batteries Used	2 × 4,8 kW

MATERIAL

Printed Matter	5 kg
Plastics	50 kg
Recyclable Material	100 kg
Wood, carton, paper and pant-based materials	1000 kg
Area of the stands (food, bar, concessions)	100 m ²
Transported weight of goods	1t = 1000kg (incl all food and equipment)
Average distance	50 km (between Kraków and Błędowska Desert)

WASTE

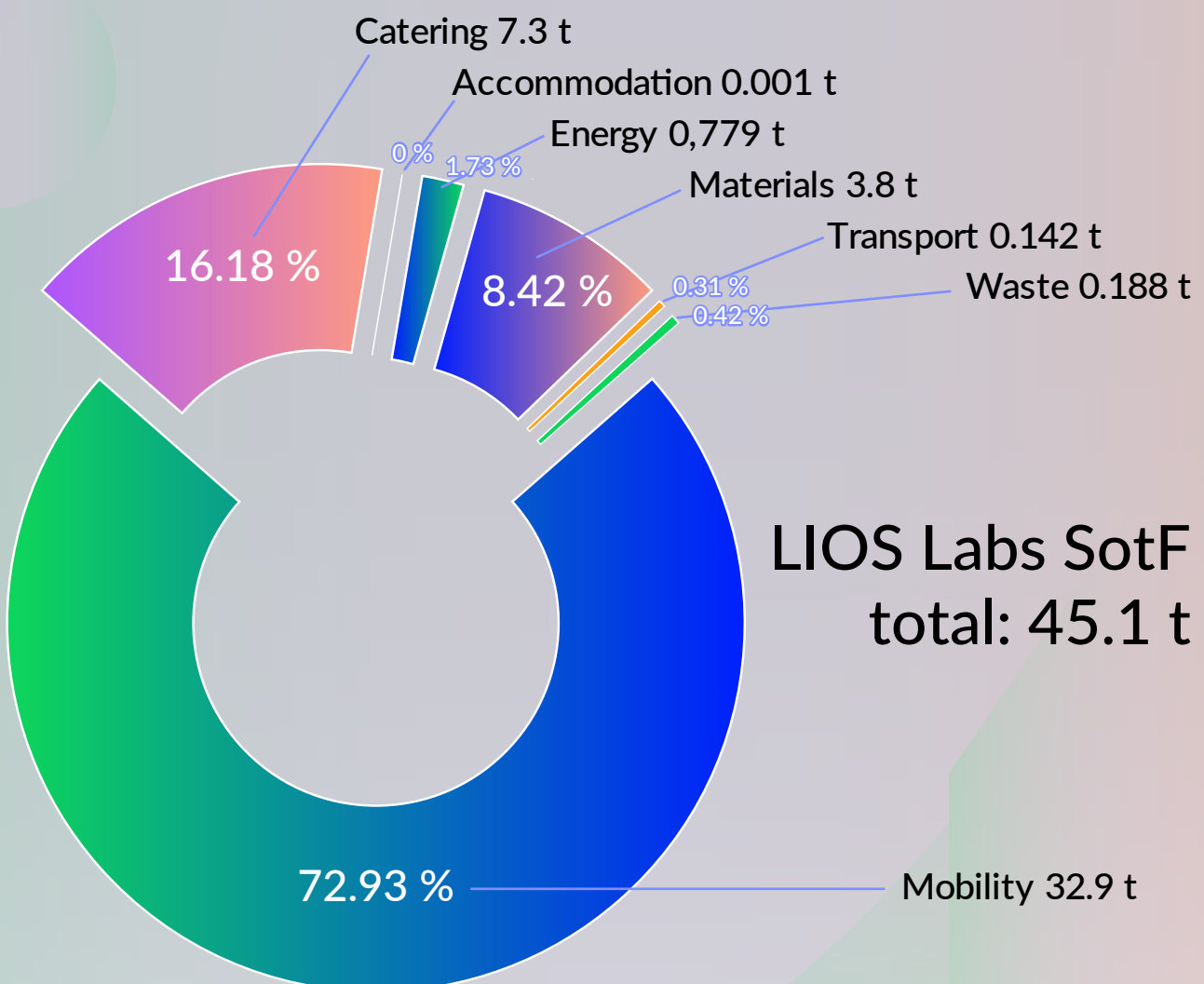
Residual Waste	150kgs
Recyclable Waste	150kgs

The above data gives us **45.1 tons of CO₂ for the overall event** as per [myclimate's events carbon emission calculator](#) (also used by companies including Lufthansa, Hotelplan, and World Wildlife Fund (WWF)).

Based on this estimated total emission of **45.1 tons** by 130 people over 4 days, we can calculate **87 kg per person per day of carbon emissions**. One study [estimates](#) that an average conference participant emits 500-1500 kg of CO₂, suggesting that this event had significantly lower emissions than comparable gatherings. For context, average carbon emissions in Poland are [estimated](#) at 7.8 tons per person per year, making it 21.3 kg per person per day. However, this is the average number for individuals in a household and not a gathering of individuals for an event.

By far the most significant category was mobility (**32.9 tons**)—the most challenging category for many festivals and events to reduce since the over-reliance of the transportation sector on high-carbon-emitting fossil-fuels is well known and documented. Overall, it is very safe to say that the average participant at LIOS Labs SotF emitted less carbon than they would have in any other comparable event, making it a pioneering model for sustainable and self-reliant events.

The emissions are caused within the following categories:



Successes, challenges and areas for growth

The first year of any festival is a moment of intense learning—what works? what doesn't? what needs to be done differently next year?

What went well

30+ musical acts, spontaneous jam sessions, residency workshops and experiences ranging across writing and language, meditation and poetry, even boxing. What people loved about *Sharing of the Fruits*:

"The community living, sharing, and dreaming"

"The community nature of being in the desert, the terrain and its difficulties bringing everyone together."

"The live band experiences were a highlight for me—fits right in the desert."

"The spontaneous jam session on Saturday night. the opening set. the beautiful opening ritual. the people I got to meet. the outdoor sunset dance as a rainbow broke through a day of clouds and rain."

"The dancefloor female vibe in general was insanely inspiring"

"...all of the [music and DJ sets] instigating senses and playing finely with matter and ether, intangible and political. lake sun water rain rainbow glow"

"It [motivates me] to make music to share, or just to be a sandy creature and share more harmonious moments with other people. It's a break of civilization in a unique, different way."

"Being able to experience my own emotions in a safe and welcoming environment."

What we learned:

Social sustainability and logistics...

Plan more setup time than you think you need.

The 2022 edition had a quick turnaround from the final round of residencies to the festival. Research participants wished for a longer transition, providing “a few more days either end of the event to recalibrate,” or a Burning Man-style model “where all participants build the festival together,” then shift from build-up to celebratory mode to enjoy the event together.

Good communication is essential: before, during, and after the event.

“The level of preparation and innovative planning that went into the festival was incredibly impressive. It provided a great deal for everyone participating and went far beyond expectations. I did sense there could've been far more improvement on the means of and method of communication. Although to me this seemed part of the chaos of desert life...”
—survey respondent

LIOS Labs has an ambitious concept that spans many aspects of sustainability and social organization—and for its success, so much relies on communicating that to all involved. What we're looking at for future iterations:

...more clearly expressing what to expect.

LIOS is no typical festival, but rather a highly participatory and experimental micro-festival. One respondent observed that *“billing it as a festival (rather than a participatory project) may have created a gap between expectations (especially amenities) and reality.”* Another respondent noted that they expected a more scientific focus, and would have loved *“to see a greater overall concept referring to the sustainability and adapting life to desert aspects, or a stronger communication about the art focus in advance.”*

...more sustainability communication.

Survey respondents expressed a wish for **more signage** to help find their way around the site, to remind people of sustainable behaviour, or even to learn more about life in the desert. One respondent noted: *“There might have been a sustainability concept which has not been communicated properly to the guests to be seen as such.”*

...seeking more ways for new and veteran participants to share responsibility.

Some survey respondents identified a “sense of separation” between those who'd been at LIOS for weeks, versus joining for just a few days, or felt unclear about *“what was being defined on the spot, up for discussion or ideas, vs. what was already decided on. Small invitations would have allowed for far more pieces from others.”* Continuing to emphasise trust, openness, and active participation is key for more full inclusion.

“I could directly feel how some of the Orga-team were overwhelmed...[while] In the end we manage to trust and know each other a bit more. [Based on] personal experiences with DIY events, I think many people were overworked.”

Continuing to develop an awareness concept. A last-minute Covid cancellation meant planned awareness measures could not go forward. A clearly designated awareness team and concept is a high priority for future years. Research participants identified a strong need for more measures for BIPOC, trans, and disability inclusion.

Seeking routes toward economic sustainability. We recognize that class and financial wealth impact who can participate in arts residencies and events, and how. Smaller events can be more expensive to run, and people from less socio-economically privileged backgrounds (i.e. EU residents from the 'Global South') experience barriers to participation. Interviewees called for a more nuanced understanding of privilege and access in creating a truly socio-economically sustainable event.

"I'm from Chile, a poor country. I'm an emerging artist, and I'm still in the process of starting to think about money and work. I'm [one of the only] South Americans here. For us, migrants coming from so far, sometimes we don't have the accessibility to residencies and this kind of thing. ...This is missed in almost every project I know. I understand it - you don't cross worlds sometimes. But we're in a moment where the crisis is so big that we have to cross worlds. These poles [of North and South] have to understand each other, and you cannot make a sustainable work if [there are] so many parts you're just not seeing."
—V, volunteer

Environmental sustainability



See sustainability through an intersectional lens. Interviewees pointed out that too often, environmental sustainability is seen through a lens of privilege and whiteness—and that it's essential to recognize *"that sustainability is not only about resources, but social issues...Topics of intersectionality and a stronger political approach are also good supporters for the magic to happen with full awareness."* Participants expressed a wish that the event made more space to examine the why of making alternative environmental choices: why choose less meat? Why reduce one's water consumption?

"Growing up, I saw this trend of becoming vegan, becoming minimalist...this sustainability is, for me, very white. Sustainability is also...acknowledging what you can do yourself, in which pace, in order to contribute to the environment. It's easy...to say, 'you should do it this way, change the world this way.' But you can only do it from your own position. Europe has to own their own [impact]. If one doesn't acknowledge responsibility, you also cannot do anything." —E-F-U-A Born On A Friday, hybrid artist

When asked about obstacles to participation, the biggest wishes from survey respondents were **more time or days onsite (57%), clearer expectations (43%), feeling a greater sense of ownership or belonging (43%), clearer instructions or support for tasks (38%)**—but over a third of respondents noted that they were comfortable as-is.

Impact on Participants

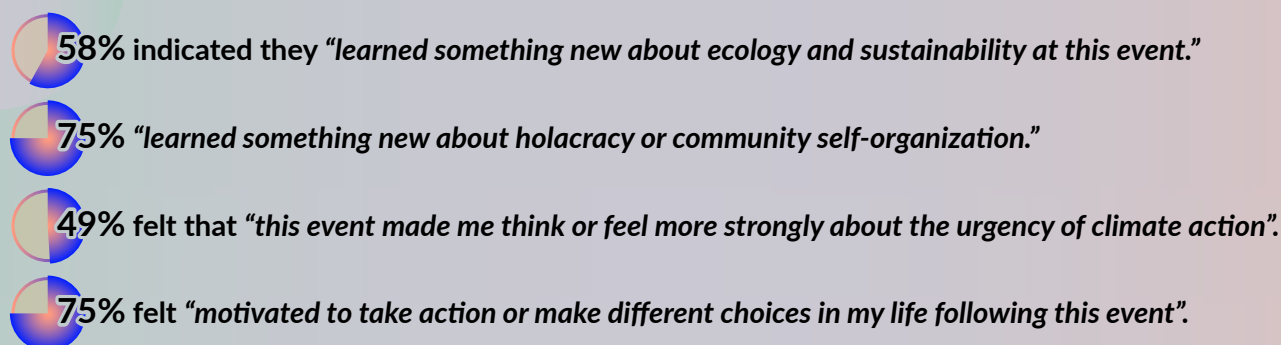
Sharing of the Fruits had a range of social, cultural, and environmental impacts on participants, from providing valuable artistic feedback early in a musical career, to fueling a sense of urgency and immediacy to take climate action and make different choices in their lives beyond the festival.

Micro-festivals are key for emerging artists. Many artists, residents, and volunteers noted that they were first-time recipients of an artist residency or were performing with a new musical act or group (within 1 year of formation). This and other micro-festivals can be a first step on a “venue ladder”: a welcoming place for emerging artists to experiment and gain experience at the start of an artistic career, enabling them to work towards larger venues. Several artists said they found it validating to be invited to perform at LIOS, amidst like-minded artists in an extraordinary setting—showing that there’s an audience and appeal for what they do:

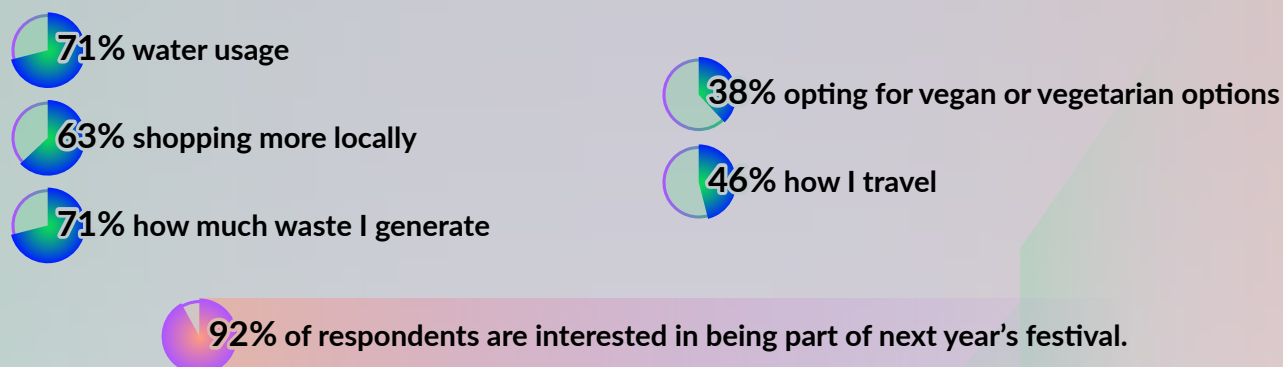
“Yesterday the sets were on fire. [It’s] very inspiring, how this environment is created. I’m experiencing a lot of first times. First time to Poland. First time in the desert...as an artist invited here with other artists.” —E-F-U-A Born On A Friday, hybrid artist

Festivals are a site of artistic and environmental experimentation. One resident explained that festivals offer space to express “parts of you that maybe would be more challenging to exhibit where you live.” Whether trying out new forms of artistic expression, participating in a new workshop or movement practice, or embracing a more planet-friendly diet, interviewees identified SotF as a space of “firsts.”

By the numbers...



When asked if participants are thinking or acting more mindfully around environmental sustainability behaviors...



³ Numbers in this section come from survey participants (n=24) who indicated ‘strongly agree’ or ‘agree’ on these statements.

In participants' words...

*"Being on the desert was a crucial reminder of what it is to be human."
—survey participant*

*"I've been taking bucket baths again a few times a week in order to reduce my water use."
—survey participant*

*"The main input I [brought back] from the festival relates to a sustainable economy fueled by art and [collective] mobilizations, how we can ignite through (and with) pleasure, affection, an abundant empowering source."
—survey participant*

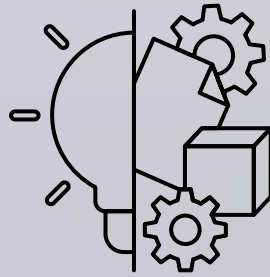
*"It's the work: the buggy goes over and fills up the water. The water comes back here and you can physically see that there's seven jugs, and the jug you're using is half empty. So if you use this much water and the next six people use this much water, then the jug's empty. If all 30 people use that much water, you have to go for another [water] run, which means [taking] the buggy, which means fuel. [It's a] physical representation instead of just, **pipe equals water**."
—Ali, resident*

*"We did this ritual [on the first day] that was so beautiful. There was a power in...how one person's voice was heard. ... I really wish for that to become part of my future friendships, the way I move, the way I work. How I grew up, self-care is a normal thing, implemented in your daily life. Cooking, dancing, rhythm - a lot of these little things are part of self-care."
—E-F-U-A Born On A Friday, hybrid artist*

*"I think it's great to be putting our eyes in nature. This is just a good beginning, and so necessary, and we need to come back. I really appreciate any effort even if it's not perfect. It's just great to sleep super close to the Earth."
—V, volunteer*

*"I am Italian and we have a big food culture. I loved last year how many dishes were coming from different countries every day—everyone was cooking, from different parts of the world. And I thought, **OK, maybe I can actually eat only vegetables!** ...If I don't eat meat...[it's] more for the planet. Water, issues like this. **And** it's f***ing good!"
—Zeno, resident*

PRO TIPS



Big ideas for incorporating environmental sustainability into your mission & values

- Everybody needs to take action in response to the climate crisis.
- Festivals are responsible for their consumption models and environmental footprint
- Festivals can give participants a chance to change behavior—short and long term.
- Festivals are drivers of culture change, and without culture change, policy solutions **won't work!** Festivals can promote sustainable development by raising awareness about environmental and social issues and encouraging sustainable practices.



Define your *why* — and keep coming back to it. Sustainability is a big term, and too often, environmental sustainability can be seen through a lens of privilege and whiteness. Clearly define what and *why* your event does what it does, and keep communicating that at all levels. Consider potential barriers to access like cost, time, and physical access, and design accordingly.

Communication is key for sustainable events. Trying to do things differently requires a high degree of communicating expectations within the org team, to artists and volunteers, and to attendees. Allow extra time and energy for digital communication platforms, for event publicity strategies, and also to check in to assess how it's all going along the way.

Think outside the box for festival merchandise. We considered the idea of providing organic-cotton T-shirts as a form of merchandise. The idea was rejected by the “test group” and replaced with second-hand items screen printed with LIOS Labs and SotF artwork, creating completely one-of-a-kind items with their own stories.

Plan extra time for setup, build phases, and transitions between phases. Particularly when working in new ways, allow extra time to work out inevitable surprises, energy dips, or things not going as planned.

Have a rain plan! After a summer of clear skies, the SotF weekend was affected by two days of heavy rains. As an event relying on a solar powered sound system (as well as an uncovered desert buggy for transporting event goods)—this posed a serious challenge. The event production team worked out a system for battery charging via grid power and experienced only minor programming delays. The lesson: even if it looks unlikely, plan for adverse weather conditions and know how you’ll communicate last-minute changes to participants.

“Almost constant rain, absence of sun and power shortages throughout the weekend made the logistics of battery powered music events complicated. However we managed to pull through with the planned programme and created beautiful moments for both artists and participants.” —organizer

Pick your location carefully—and consider the trade-offs. The Błędowska Desert’s unique history and setting was a source of inspiration for many attendees, but others noted the challenge of getting to the site. A more accessible site for the festival’s audience (like the Lieberose Desert, outside Berlin) might better support the festival’s sustainability goals.



Make sustainable choices easy and natural

- ➔ **Trash and micro trash:** Be creative with waste containers. Clearly marked jars, distributed all over the event, can help catch micro-trash like cigarette butts.
- ➔ **Food choices** are one of the biggest contributors to overall emissions. Festivals are a great chance to draw more attention to what we eat, be playful with it and educate at the same time. Consider collaboration with your local suppliers—a festival may help them to adopt more sustainable options for the long term.

Section 4: Takeaways

Takeaway: Practical outdoor event sustainability checklist

The first step you can take toward a more sustainable music and event industry is considering what specific components of your event can impact the world around you. We've compiled this list based on our event production experience and added elements that are found in most music and culture-related formats. The checklist is best used during each stage of your event production:

- **Planning:** Identifying environmental and social areas to address through event design
- **Production:** Checking that all planned elements have been prepared and implemented
- **Post-Event:** for post-event self-evaluation

Use the categories below to think about what they mean in the context of your event. Depending on the venue, audience and other factors, the best environmental or community solutions may differ. Gathering the data points listed below will allow you to calculate your event's carbon footprint – see our example in Section 3.

1 GENERAL

- 1.1 Sustainability Concept
- 1.2 Accessibility Concept
- 1.3 Diversity Concept
- 1.4 Carbon Emissions are:
 - 1.4.1 Measured
 - 1.4.2 Reduced
 - 1.4.3 Offset
- Data Points:**
- 1.5 Number of Participants
- 1.6 Number of Staff
- 1.7 Number of Days
- 1.8 Heated Area (m²)
- 1.9 Air-Conditioned Area (m²)

2 MOBILITY

- 2.1 Sustainable Mobility Concept
- 2.2 Recommendations for Public Transport/Bus/Trains
- 2.3 Mobility Information/Data Requested/Measured

Data Points:

- | | |
|------|--|
| 2.4 | Number of people arriving by car |
| 2.5 | Average distance travelled by car |
| 2.6 | Number of people arriving by public transport – bus |
| 2.7 | Average distance travelled by public transport – bus |
| 2.8 | Number of people arriving by public transport – train |
| 2.9 | Average distance travelled by public transport – train |
| 2.10 | Number of short-haul flights (under 3h) |
| 2.11 | Number of medium-haul flights (3-6h) |
| 2.12 | Number of long-haul flights (above 6h) |

3 LOCATION AND ACCOMMODATION

- | | |
|-----|---|
| 3.1 | Sustainable location and accommodation concept |
| 3.2 | Connection to public transport is within walking distance |

Data Points:

- | | |
|-----|--|
| 3.3 | Number of overnight stays in camps |
| 3.4 | Number of overnight stays in 2-3 star hotels |
| 3.5 | Number of overnight stays in 4 star hotels |
| 3.6 | Number of overnight stay in 5 star hotels |

4 CATERING

- | | |
|-----|---|
| 4.1 | Sustainable catering concept |
| 4.2 | Purely vegetarian/vegan catering |
| 4.3 | Organic food and beverages only |
| 4.4 | Local food and beverages only |
| 4.5 | Measuring food and beverage consumption |

Data Points

- | | |
|------|-------------------------|
| 4.6 | Number of Veg Meals |
| 4.7 | Number of Non-Veg Meals |
| 4.8 | Number of Snacks |
| 4.9 | Water (in L) |
| 4.10 | Coffee (in L) |
| 4.11 | Tea (in L) |
| 4.12 | Wine (in L) |
| 4.13 | Beer (in L) |
| 4.14 | Spirits (in L) |

5	ENERGY
5.1	Sustainable Energy Concept with Energy Saving Guidelines
5.2	Renewable Sources of Energy
5.3	Energy Consumption Monitored/Reduced/Offset
	Data Points
5.4	Total Energy Consumed (kwh)
5.5	Quantity of Batteries used
5.6	Type of Batteries used
5.7	How many times batteries were charged
5.8	Quantity of fuels used
5.9	Types of fuels used
5.10	Efficiency of fuel engines
5.11	Quantity of other fuel sources
5.12	Type of other fuel sources
6	PROCUREMENT
6.1	Sustainable Green/Procurement Concept
6.2	Regional Procurement Only
6.3	Procurement is Measured/Reduced/Offset
	Data Points
6.4	Amount of Printed Matter
6.5	Amount of Plastics
6.6	Amount of Recyclable Materials
6.7	Amount of Wood, Carton, Paper or Plant-based materials
6.8	Built-up area of stands
6.9	Transported weight of goods
6.10	Mode of transportation of goods
6.11	Average distance travelled by goods

7 WASTE MANAGEMENT

- 7.1 Sustainable Waste Management Concept
- 7.2 Waste Segregation
- 7.3 Composting of Organic Waste
- 7.4 Recycling of Recyclable Waste
- 7.5 Environmentally Sound Disposal of Residual Waste

Data Points

- 7.6 Organic Waste
- 7.7 Plastic Waste
- 7.8 Recyclable Waste – Metal/Glass/Paper
- 7.9 Residual Waste

8 SANITATION

- 8.1 Sustainable Sanitation Concept
- 8.2 Compostable Toilets

9 WATER MANAGEMENT

- 9.1 Sustainable Water Management Concept/Guidelines
- 9.2 Is Water Reused? Refilled?

10 NATURE CONSERVATION

- 10.1 Nature Conservation Concept/Strategy/Guidelines

11 OTHER

- 11.1 Communication of Sustainability Goals/Concepts/Guidelines
- 11.2 Rewards for Sustainable Practices
- 11.3 Sustainability Activities/Workshops

Further reading

General Resources

Meegan Jones, [Sustainable Event Management](#) (2010) (English)

[Julie's Bicycle](#), offering Creative Green [Tools](#) including environmental calculators, a [resource library](#), and a [Green Music Guide](#) (2009)

[DJs for Climate Action](#)

[Music Declares Emergency's Climate Pack](#)

[Umwelt Bundesamt \(Berlin\) Sustainable Event Guidelines](#)
[visitBerlin Sustainable Event Guidelines](#)

Clubs

[Clubtopia](#) Sustainable Clubbing initiative (available in German and English) and Green Club Guide ([German](#) only)

Touring and Artist Travel

Tyndall Centre's [Super-Low Carbon Live Music roadmap](#)

Clean Scene's [Last Night a DJ Took A Flight](#) report

[Green Music Initiative's](#) Green Touring Guide ([English](#); [German](#))

Festivals

[Future Festival Tools](#), with EU self-assessment tool ([English](#); [French](#))

[Shambala Festival's](#) [Impact Reporting](#) and [Top 10 Eco-Actions](#)

Burning Man's [Sustainability](#) roadmap, [Census](#), and [Radical Inclusion, Diversity, and Equity](#) (R.I.D.E.) Pledge

Free Open Airs and DIY events

Clubcommission Berlin's [Free Open Air](#) checklist ([English](#), [German](#)) and handbook ([English](#), [German](#))

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SotF Artists

[After Nature Soundscape](#)

[Akimat](#)

[DJ ANGEBOT](#)

[Bakblivv](#)

[Big Leg](#)

[Black Sail Sound](#)

[Candoxá](#)

[Carmen](#)

[E-F-U-A Born On A Friday](#)

[e l e m e n t](#)

[Iris Forest](#)

[Ivan Bayor & so:miya](#)

[Kreshik](#)

[dj mindfucker](#)

[Montuno](#)

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References

Section 1

Can Flashy Music Festivals Go Green? (New York Times):

<https://www.nytimes.com/2022/10/10/style/music-festivals-green-carbon-neutral-eco-friendly.html>

Roskilde Festival: Sustainability Introduction:

<https://www.roskilde-festival.dk/en/sustainability/introduction/>

Boom Festival Eco Paradigm:

<https://boomfestival.org/boom2023/environment/boom-eco-paradigm/>

RThe Show Must Go On report:

<https://www.powerful-thinking.org.uk/resources/the-show-must-go-on-report/>

Festival waste: What's the solution? (Circular)

<https://www.circularonline.co.uk/features/festival-waste-whats-the-solution/>

Land Damage (A Greener Festival):

<https://www.agreenerfestival.com/land-damage/>

The environmental release and ecosystem risks of illicit drugs during Glastonbury Festival (ScienceDirect):

<https://www.sciencedirect.com/science/article/abs/pii/S0013935121013566>

Timeline: Pustynia Błędowska:

<http://pustynia-bledowska.eu/index.php?c=page&id=70&print=1>

Dunbar's Number: why my theory that humans can only maintain 150 friendships has withstood 30 years of scrutiny (The Conversation):

<https://theconversation.com/dunbars-number-why-my-theory-that-humans-can-only-maintain-150-friendships-has-withstood-30-years-of-scrutiny-160676>

Section 2

Sustainability (United Nations):

<https://www.un.org/en/academic-impact/sustainability>

Guidelines for the Sustainable Organisation of Events (Umwelt Bundesamt Berlin):

https://www.umweltbundesamt.de/sites/default/files/medien/376/publikationen/guidelines_for_the_sustainable_organisation_of_events_bf.pdf

Zelan:

<https://www.zelan.pl/>

Section 3

MyClimate Calculator:

https://co2.myclimate.org/en/offset_further_emissions

It's time to be more transparent about events' carbon emissions (PlanA):

<https://plana.earth/academy/transparent-sustainable-events-carbon-emissions>

CO₂ emissions (metric tons per capita) - European Union (WorldBank):

<https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=EU>

Re:Venues: A case and path forward for Toronto's Live Music Industry (Toronto.ca):

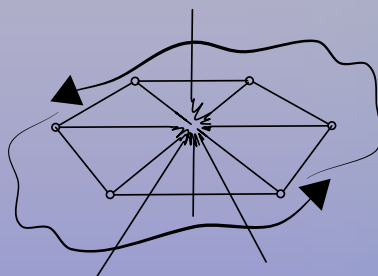
<https://www.toronto.ca/wp-content/uploads/2020/10/9846-Re-Venues-FINAL-REPORT.pdf>



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onEarth foundation 2023
A MANUAL FOR REGENERATIVE GATHERINGS
Festival sustainability report and impact tracking
for small scale outdoor events