

A large crowd of people is gathered under a colorful canopy made of overlapping translucent fabric panels in shades of red, orange, and yellow. The people are mostly shirtless or wearing minimal clothing, and many are raising their hands in the air. The scene is bright and festive.

**GREEN FESTIVAL STORIES**

**– A COLLECTION OF INSPIRING**

**EXAMPLES FROM ACROSS EUROPE**

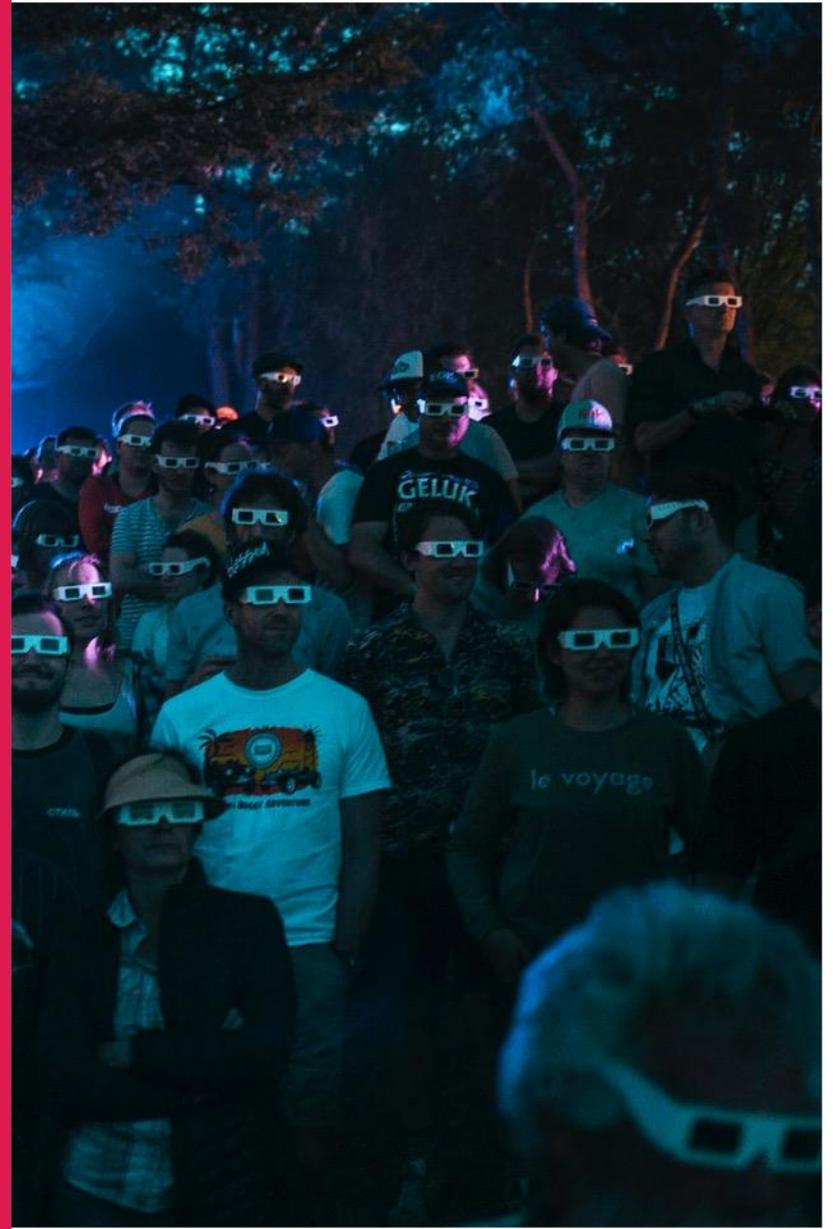
**FUTURE  
FESTIVAL  
TOOLS**

GREEN COMPETENCY  
FOR EVENT PROFESSIONALS



Explore  
**21 stories of**  
festivals with  
inspirational  
**sustainability**  
projects  
and learn  
how to make  
your own  
event **greener**

[www.futurefestivaltools.eu](http://www.futurefestivaltools.eu)



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# 21 STORIES ACROSS 6 SPECIALIST AREAS



# 1

## INTRODUCTION

What you can expect from this guide



Photo by Cagdas Alagoz

# What the Future Festival Tools project is all about

***By Holger Jan Schmidt***

In late 2020, a dream team of leading European green initiatives from the live events and festival sector joined forces. The aim was to create knowledge tools that will transform the European live events sector to be future-ready by enabling a whole generation of event organisers and students to gain green competency and create the future. We called the project, which is kindly funded by the Erasmus+ programme of the European Union, “Future Festival Tools”. Our vision has been that of a future-proof European festival and events industry: resilient, competent and pioneering green practices. Future Festival Tools will help empower people working in live events across Europe to be fit for the challenges of the future with green competency, tools and personal certification.

**For this purpose, we have created a set of tools:**

- event self-assessment tool
- inspiring good-practice guide
- certified e-learning course
- trainers’ handbook for event businesses

## WHO IS HOLGER?

**Holger Jan Schmidt** is one of Europe’s leading networkers in the music festival industry and can look back on about 30 years of making festivals happen. Among various topics, he has a special focus on sustainability and social responsibility for festivals and events.

Holger is General Secretary of YOUROPE – The European Festival Association and co-founder of the think tank GO Group (Green Operations Europe) that focuses on sustainability-related and environmental issues at events.

What you are holding in your hands or about to click through is the just-mentioned “good-practice guide”. Our task was to identify, categorise and share outstanding and transferrable projects carried out by festivals and other outdoor events from all across Europe and compile them in a digital publication. All the projects have in common that they have the purpose to reduce the events’ environmental impacts and create a more sustainable business model. An additional goal that the Future Festival Tools team wanted to achieve was to create a format that does not simply list measures, but also describes challenges and solutions in an attractive and accessible way. Something that lets the voices of the festivals themselves be heard and that reflects the diversity of the European festival scene.

We far exceeded the planned number and researched more than 20 examples covering all key focus areas of our project. We also made sure to include a variety of different festival types: from small grassroots events to large major festivals, events of different styles and from all corners of the continent. The result is something special that goes beyond a good-practice compendium.

***We call it “Green Festival Stories – A collection of inspiring examples from across Europe”.***

The festivals in this guide were selected by experts from leading organizations in the field of sustainability and festivals united in the project such as Julie’s Bicycle, Green Events International and GO Group. Suggestions also came from associated experts and initiatives. The network of YOUROPE – The European Festival Association, whose members had already chosen sustainability as a priority for their actions at the beginning of the millennium, was very helpful, too.

Applying a set of different criteria, the Future Festival Tools team distilled the final compilation out of a list of more than 50 potential festivals. The chosen examples were developed in direct communication with the festival teams on the basis of interviews, additionally provided information material and publicly accessible documentation. We want the finished stories to bring you as much joy and inspiration as we had creating them. We are hopeful that “Green Festival Stories” will make the valuable contribution to achieving the goals of our project and improving the festival industry that we envisioned when kicking off Future Festival Tools.





## Why we chose these key focus areas

Photo by Bart Heemsker

*By Fine Stammnitz & Katharina Weber, authors of the festival stories*

Festival goers and stakeholders alike always expect festivals to go the extra mile and create a memorable experience for everyone involved. Sustainability is no exception: today's audiences want festivals to come up with innovative solutions and make guilt-free partying possible. What sounds challenging and maybe even intimidating is actually a good thing! Because festivals can be a laboratory for innovative solutions and have the power to influence people on an emotional level, they have the unique opportunity to create something meaningful for the whole society in a playful and engaging way. What this means will become obvious when reading the inspirational stories in this guide.

**To give this guide structure, we have chosen to divide it into six focus areas. Five are based on the aspects that cause the most emissions and other harmful environmental impacts at festivals:** energy, materials & waste, food & drink, water, and travel & transport. As transformation is a process that needs to be continually cared for, it becomes more and more important to have an overall sustainability strategy that includes all these areas, leading to our sixth and final focus area: strategy.

## We spoke to 21 festivals across the European continent and asked them to share their sustainability efforts with us.

And we heard so many great things – festivals that plan their program according to how much solar energy they can generate on their own, festivals that went completely meat-free or even plant-based, and festivals that built their own solar carport parking space and water treatment plants – to name just a few examples. We feel really inspired and now want to encourage you to take a look, read the stories and see how they could contribute to making your festival more sustainable.

You will see that changing even one aspect of your production can already have a huge impact. Always remember: you don't have to change everything at once, you don't have to do it all on your own, and you don't have to do it perfectly from the start. The only thing that matters is to actually start. We can all learn so much from each other – let's see how many more inspiring stories will be created from that.

### About Fine & Katharina

**Fine Stammnitz** is the founder and director of the **Green Touring Network** in which she works on activating the potential of the music industry to actively contribute to the fight for climate justice. She is also the co-founder of **Music Declares Emergency** in Germany and part of the **Aktionsnetzwerk Nachhaltigkeit** for operational ecology.

**Katharina Weber** discovered her passion for raising environmental awareness during a summer project on sustainable festivals in 2013. After her BA in English Studies, an MA in Applied Linguistics, a journalistic traineeship and several years in the media industry, she returned to working with event sustainability in 2021, together with the festival association **YOUROPE**.

Photo by Maxime Chermat



# Why CO<sub>2</sub> analysis matters

By Jocelyn Gan (*A Greener Festival*)

**Climate change** is the gradual increase in global temperature due to change in composition of the earth's atmosphere. When **greenhouse gasses (GHG)** accumulate in the atmosphere, they act like a blanket around earth, so that less heat escapes, creating a greenhouse effect. Humanity contributes to climate change through the burning of fossil fuels, deforestation, increasing farming activities, and increasing resource use.

The **carbon footprint** of any activity is a measure of all greenhouse gas emissions emitted during the lifetime of that activity. By estimating its carbon footprint, a festival can measure and understand their event's contribution to climate change. With that knowledge, festivals can then take informed and critical steps to manage and reduce emissions.

The major GHGs include **carbon dioxide**, methane, nitrous oxide, and fluorinated gasses. These are the most common anthropogenic (human-caused) gasses. A carbon footprint accounts for all relevant gasses for an activity and measures its impact as an equivalent mass of carbon dioxide (**t CO<sub>2</sub>e**, tonnes of **carbon dioxide equivalent**). This metric takes into account the varying global warming potentials (GWPs) of each gas.

## About Jocelyn

Jocelyn Gan is the North America Lead and Senior Analyst for A Greener Festival. Based in New York City, she has over nine years of experience developing sustainability strategies. She brings her experience on engagement and subject-matter expertise to empower festivals and live

music events to integrate practices and policies that create a positive social and environmental footprint. She has a Master of Science in Sustainability Management from Columbia University.



## Using the Greenhouse Gas Protocol's carbon footprint framework

A carbon footprint shows emissions from a variety of activities, like heating and cooling, powering stages, traveling to site, managing waste, and more. These emissions are categorized into three groups or 'scopes' as dictated by the [Greenhouse Gas Protocol](#), an internationally recognized and utilized carbon accounting standard. The GHG Protocol also sets guidelines on calculation methodologies and assumptions which are universally used.

### HERE IS A BREAKDOWN OF EACH SCOPE

1

Direct emissions arising from owned, leased, or directly controlled stationary and mobile sources by the organization. Stationary sources include any fuels burned on site, such as natural gas, propane, coal, fuel oil for heating, and diesel fuel for backup generators. Mobile sources include transportation fuel by vehicles owned or leased by the organization such as cars, trucks, propane forklifts, coaches for audience transport, leased vans, and more. This scope also includes fugitive resources which are refrigerants released by air conditioning and refrigerated appliances.

2

Indirect emissions arising from the consumption of purchased electricity, heat, or steam. Utility green tariffs would also be applied here if relevant.

3

Indirect emissions that result from the organization's activities but are from activities owned, leased or controlled by another organization. There are many activities that may apply under this scope and it is represented differently based on each event's operations. Activities may include: travel and accommodations for talent, audience and staff, travel for contractors, food and beverage procurement, production material procurement, water use, wastewater, sewage, and waste and recycling disposal.

A carbon footprint, also known as a greenhouse gas inventory, can provide a detailed outlook on your event's operations and has a highly collaborative process across all teams. A key challenge in conducting an inventory is acquiring data and information both before and after the event. Processes should be put into place ahead of time to ensure each team understands what data is requested, such as total mileage of each contractor vehicle type, total weight of each ingredient in meals served, and total fuel used in generators. This information would serve as a benchmark of an event's sustainability performance, as well as a tool to set meaningful reduction targets.



Photo by John Such

## Call to Action – It's up to you

*By Jacob Sylvester Bilabel*

Step by step from knowledge to action.

We all suspect that the climate crisis is slowly becoming serious. And our awareness of the problem grows with every conversation in which we realise: someone should really do something about this. But who? What? And how? What if we dared to imagine that the transformation to a climate-friendly society would not be so impossible? What if this process could even be fun, happy and beautiful?

### About Jacob

Since 2016, Jacob Bilabel has been the managing director of the non-profit project management organization Delta1 in Berlin. He founded the pan-European think tank Green Music Initiative and runs the Aktionsnetzwerk Nachhaltigkeit for operational ecology. Jacob is a member of

the committee for the creative industries of the Berlin Chamber of Industry and Commerce, an appointed expert at the Federal Competence Center for Cultural and Creative Industries, and has held several teaching positions.

## THE ANSWER

One thing is certain: it is complicated. And we don't have the time. My wise grandmother once told me: if you're in a hurry, you'd better go slowly. So now, step by step: let's make it simple, concrete and practicable. What do we need to move from knowledge to action?

REMEMBER  
1, 3, 5 & 7.



1 DECISION



3 STEPS



5 MEASURES



AND 7%



## 1 DECISION

The transformation is taking place. Even without us. We can decide: does design or disaster drive us? Do we want to act or react? Both attitudes are legitimate. But not at the same time.



## 3 STEPS

### 1 SET TARGETS.

What is your personal climate goal? And by when do you want to have reached it?

### 2 DEFINE YOUR STATUS.

Honestly: where do you stand today? What is the carbon footprint of your institution, your project, your family or yourself? You will not be able to reach your goal if you do not honestly find out where you stand today.

### 3 PLAN, IMPLEMENT AND EVALUATE ACTIONS.

*"Vision without action is called small talk"* – so get started. And look closely at the results. You can recognise a good plan by the fact that it is constantly being changed. Transformation is like dancing the rumba: one step forward, one step to the side and one step back. Nevertheless, stay loose in the hips.



# 5 MEASURES

## 1 PROVIDE RESOURCES

Transformation will be expensive, time-consuming and annoying. But it will be even more expensive, time-consuming and annoying if we wait any longer. So plan enough resources for the process now. You need money, time and attention. Also be mindful with your own resources. There are already far too many burnt-out activists.

## 2 BUILD SKILLS & CAPACITIES

New processes need new competences. We cannot solve tomorrow's challenges with yesterday's tools. Let's make sure that we build the capacity to build a better future for all of us together now. Then transformation will also become a great opportunity for all.

## 3 LAUNCH PILOTS AND EXPERIMENTS

Action knowledge comes through action. Ask yourself the question: what do I want to try out? Dare to define it as an experiment first. And then be surprised when it works better than you ever dreamed. Find an experiment, pilot project or measure that suits your institution, your project or you. Decide what is most important for you at the beginning.

## 4 COLLECT & UNDERSTAND DATA

*"What you measure you will manage"* – learn the language of numbers. It helps you to assess whether your measures are having the success you want. And be honest enough to say sometimes: "It's not possible." That is better than if we all continue to nod our heads whenever we hear the seemingly unattainable goal of climate neutrality for society as a whole. Climate balances must therefore be simple, understandable and practicable for everyone to use. CO<sub>2</sub> reduction is not everything, but it is a good start. Oh yes: please do not believe that buying offsetting certificates makes anything really climate neutral...

## 5 BUILD NETWORKS

Sustainability is a team sport. The opportunities, challenges or elephants in the room are almost the same for everyone. So exchange ideas with others early on. Dare to ask questions that may not have answers now. Celebrate your successes as well as your failures. It is the same for all of us. A core competence of the future will be tolerance of ambiguity. And that is much easier to produce collectively.



# 7% SAVINGS EVERY YEAR

Let's divide the big goal of climate neutrality into practicable intermediate steps. In concrete terms, this means: **7% savings in our CO<sub>2</sub> emissions every year**. Sounds like a feasible Net Zero strategy, doesn't it?

# 2

## KEY FOCUS AREAS

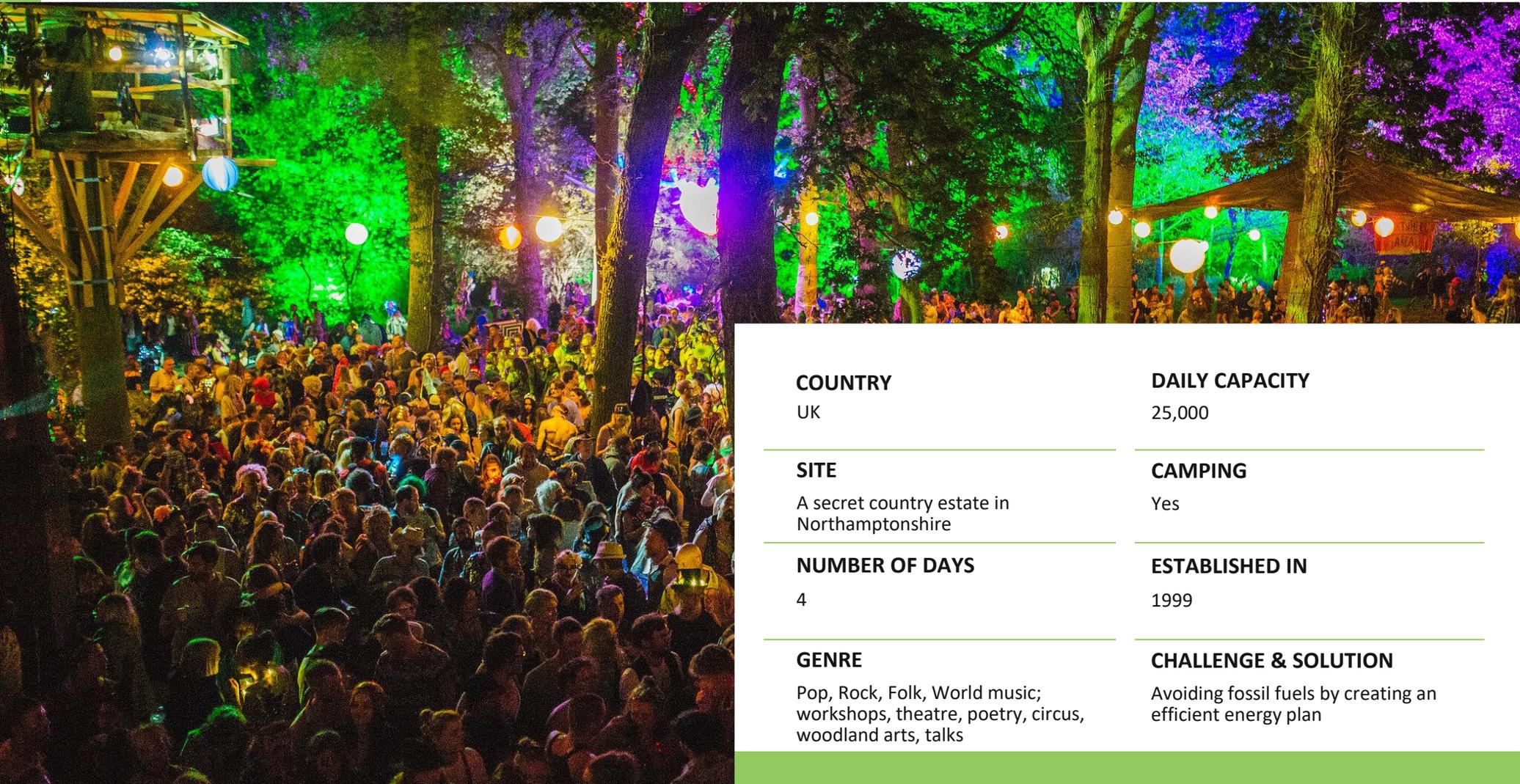


Photo by Ingnar Wein

# 2.1

## ENERGY





## COUNTRY

UK

## DAILY CAPACITY

25,000

## SITE

A secret country estate in Northamptonshire

## CAMPING

Yes

## NUMBER OF DAYS

4

## ESTABLISHED IN

1999

## GENRE

Pop, Rock, Folk, World music; workshops, theatre, poetry, circus, woodland arts, talks

## CHALLENGE & SOLUTION

Avoiding fossil fuels by creating an efficient energy plan

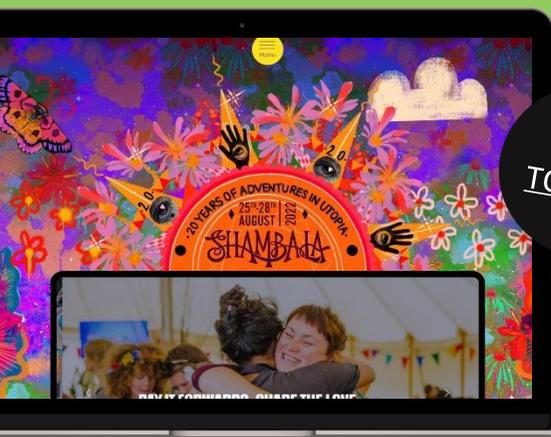
Photo by Louise Roberts

The spirit of Shambala is summed up well in its tagline ‘Adventures in Utopia’. Chris Johnson, co-founder, director and sustainability lead for the festival, describes Shambala as “a special place where you play, revitalise, make lots of new friends and return to the world fuelled-up on the beauty of being alive.” The festival program is so much more than the 200+ music performances; it includes cabaret, workshops, stand-up comedy, inspirational talks, circus and acrobatics, interactive theatre and poetry, all housed in beautifully decorated venues.

The Shambala team has implemented a wide array of sustainable measures, ranging from energy to food, waste and transport. “As well as being known as a

‘legendary party’, it is also a haven for cutting-edge theatrics and performance, a think-tank of ideas and for being an award-winning green event,” Johnson says. “We were the first ever festival to be awarded the Creative Industry Green five-star sustainability rating.”

Shambala is still run by the same group of friends who started it years ago and proudly remains 100% sponsorship-free and independent. In 2022, the festival celebrates its 20<sup>th</sup> edition. Its exact location, a country estate with lakes and woodland somewhere in Northamptonshire, is only revealed to visitors after they have bought a ticket.



[CLICK TO VIEW](#)

## AN INTIMATE BLEND OF CREATIVITY, INNOVATION AND PARTICIPATION



## THE CHALLENGE

# REDUCING THE CARBON FOOTPRINT CAUSED BY ENERGY CONSUMPTION

An effective way to reduce the CO<sub>2</sub> emissions caused by events is to remove diesel-fuelled generators and in their place, using sustainable fuels or connecting to the local grid to receive renewable energy. This is a challenge that Shambala has already mastered, and now it wants to go even further by avoiding using fuel of any kind. “We have taken advantage of all the ‘easy wins’. Often the last options to make progress are more difficult or expensive,” Johnson explains.

In order to write an energy plan and calculate the energy demand for the coming years, festivals need to know what they are actually

going to be powering and what the usage is going to be. Collecting this information can be a challenge, particularly because it needs all suppliers involved in the festival to help. Johnson says that traders often don’t know exactly how much energy their equipment needs. Instead, they give the festival the size of their stall’s power connection, but this only determines the maximum amount of energy they are able to use, not the amount that is actually consumed.

“ We have taken advantage of all the ‘easy wins’. Often the last options to make progress are more difficult or expensive.

# SAVING ENERGY & CREATING A MORE SUSTAINABLE ENERGY MIX

Shambala has switched to a more sustainable energy mix and has made efforts to reduce the amount of energy used. The festival stopped using diesel in 2009, Johnson reports, and since 2010, it has been completely powered by renewable sources: Shambala is connected to the electricity grid, uses solar energy, biofuels, batteries and bottled Liquefied Petroleum Gas (LPG). The biofuels used are called Hydrotreated Vegetable Oils (HVO), which come from renewable sources (they're made from waste products within the EU). All in all, using HVO doesn't cost more than using diesel, especially when combined with energy efficiency measures.

To reduce energy consumption, the festival has applied several measures; the most important was to install an on-site mains connection to the grid. By subscribing to a green tariff, the festival has access to electricity from renewable sources.

The festival team has also developed a 3-year strategy with their energy provider, which includes targets for fuel reduction. Energy meters are installed on all food stalls, so caterers pay for the exact number of kilowatt hours they consume, which should motivate them to use less energy. Shambala also works with lighting companies to bring more low-energy lighting to the festival. Kettles are banned, and the fuses are taken out of all heaters in the offices to stop them being used.

The festival promotes a 'switch-off' culture, communicating its mission to reduce energy use and lets everyone know how they can help.

To create an efficient energy plan, Shambala uses an online system to collect information from every energy user in advance, Johnson explains. The site is then arranged into power zones, according to which the energy system is designed. Onsite, their energy contractor uses a live system to monitor generators and provide a report after the event. 80+ energy monitors are installed on everything from food stalls to stages to give detailed information about the kilowatt hours used, which helps the festival understand how energy is being used. "Before the software was available, we sent volunteers to check generators and record information."

The success can clearly be measured: between 2010 and 2019, Shambala reduced the amount of onsite CO<sub>2</sub>e emissions by 90%. According to Ecometrica, 'carbon dioxide equivalent' or 'CO<sub>2</sub>e' is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact. In 2019, that meant 15 tonnes of CO<sub>2</sub>e for a 20,000-capacity festival. In addition, the number of generators could be reduced from 26 to 15 within 3 years, despite a growing audience. In fact, according to Johnson, Shambala is now many times carbon net positive by investing in wind power projects in India.

## THE SOLUTION



## KEEP GOING EVEN IF PARTNERS DISAGREE

Shambala's approach to sustainability is collaborative and includes everyone from the audience to suppliers, caterers and festival staff. Their 3-year plan with their energy provider, which contains clear targets for fuel reduction, is essential, Johnson says. The team also works with researchers and experts on specific topics or challenges. "Generally, with sustainability, we've learnt to try to take everyone with us, but to keep going if they don't come along."

From a financial perspective, being sustainable doesn't necessarily equal higher costs: "Overall, we do not spend more money on being sustainable. Some things cost more at first, and others make more revenue," Johnson tells us. Particularly in the field of energy, being sustainable pays off: after all, "saving fuel saves money!"

“ Saving  
fuel  
saves  
money!



## WHAT'S NEXT?

Shambala plans to install more and larger battery units and solar panels. Food is another important topic, particularly finding a solution for reusable serveware.



Photo by Bjørnar Elvestad

**CITY, COUNTRY**

Oslo, Norway

**DAILY CAPACITY**

20,000

**SITE**

Tøyenparken; clubs and venues in Oslo

**CAMPING**

No

**NUMBER OF DAYS**

4 + 1 club day

**ESTABLISHED IN**

1999

**GENRE**

All kinds

**CHALLENGE & SOLUTION**

Phasing out diesel generators by connecting to the grid



## ONE OF THE MOST SUSTAINABLE FESTIVALS IN THE WORLD

You might wonder why a festival taking place in the middle of Oslo is called Øyafestivalen (“Island Festival”). This is because for the first two years, Øyafestivalen was held on the island of Kalvøya near Sandvika, just outside of Oslo. In 2001, it relocated to the Middelalderparken (Medieval Park) in downtown Oslo, before in 2014 moving to its current site, the Tøyenparken, which also lies in the heart of the city.

Øyafestivalen has grown to become the most popular Norwegian festival. It sells 60,000 unique tickets and has 100,000 visitors total over five days. Nearly 3000 people make it happen, including 2700 volunteers. Øyafestivalen kicks off in clubs and venues across the city on a Tuesday. From Wednesday to Saturday the festival takes place in Tøyenparken, and once the festival site closes, it finishes with the “Øya

night” afterparty in Oslo’s clubs. “We create unique audience experiences, with a selection of Oslo’s best food and music of high artistic quality,” says Tonje Kaada, CEO of Øyafestivalen. The festival combines big headliners with newcomers and a good chunk of Norwegian artists, while splitting the bill 50/50 between male and female artists.

Øya is consistently recognised as one of the world’s greenest events. For instance, the festival has been winning the “Outstanding Award”, the highest category in the A Greener Festival Awards, for more than 10 years. In 2020, it won the “International Greener Festival Award”, meaning Øya was the highest scoring festival of all festivals globally assessed by the NGO A Greener Festival.



Photos by Bjørnar Elvestad



## GETTING CONNECTED TO THE POWER GRID

“Since 2002, it has been our goal at Øyafestivalen to be one of the world’s greenest events. For us, this means finding sustainable solutions for waste, food, transportation, energy and the things we buy – from toilet paper to power grids,” says CEO Kaada. For example, the site operates free of fossil fuels: 98% of the energy used comes from renewable sources, all construction machinery either runs on electricity from the grid or, when this is not possible, biofuel, Kaada explains. “A progressive approach is also applied to everything from recycling (75% of all waste is recycled, having been sorted by hand) to travel (98% of attendees arrive by bike, foot or public transport,” she adds.

Once the sustainability work had started, it quickly became a priority to find solutions on how to phase out harmful diesel generators that were still being used in the earlier editions. “I think that if your festival is running on energy from diesel generators, there is a good chance that this is the item that will have the greatest effect if you manage to change the sourcing,” Kaada says. The best solution is to get connected to the local power grid. So, the challenge was to invest in building the proper infrastructure as well as to get both the municipality and the energy provider on board. Because Øya changed locations in 2014, they had to do this twice – first for the site in Middelalderparken in 2009, then in Tøyenparken.

“

Since 2002, it has been our goal at Øyafestivalen to be one of the world’s greenest events.

# CONVINCING THE MUNICIPALITY AND ENERGY PROVIDER TO SHARE THE COSTS

It did not take much convincing to get the local government and energy supplier on board, Kaada reports, and the cost to connect the festival to the grid was split between these three parties. In 2009, the festival started phasing out diesel generators and has been running on renewable energy from the grid since 2011.

“It’s always important to have the whole organization on board – from the senior management to the people working on the ground. We all need to know why we do it and what it means, so that we can convince our audience and partners that this is the way forward – and maybe even inspire others to choose the same path for a bigger impact,” the CEO explains. For example, in the beginning, Øya’s bookers had a hard time convincing some agents that it was safe to run the stages from the mains, even though there is a much greater risk for power outages when running on generators.

Investment in the infrastructure paid off fast and the festival now actually saves money on energy. “Most of our sustainability costs have paid off within a year or three; it’s cheaper to run energy-efficient and to deliver waste sorted in fractions to be recycled,” Kaada says.

“Changing from generators to the mains has made the festival 80% more energy-efficient, and in the period 2009-2018 it has saved around 200,000 litres of diesel – or almost 400,000 km of diesel driving.”

Because the festival feels like a small city that is built from the ground up each year, it considers itself the perfect arena to showcase and test sustainable innovations. The environmental impact is measured, surveyed and reported to make sure they find the best solutions. One important lesson that the team has learnt is to keep trying out new methods, even though some of them might not work after all. “I think it’s important that we encourage experimentation and allow failure in our business, and it’s equally important that we are transparent – so that we can learn from each other’s trials and errors.”

Although Øya has gained national recognition as an expert festival and willingly shares their knowledge with other festivals, it welcomes competition: “What the world needs is that as many as possible fight as hard as they can to become one of the greenest events in the world.”

## THE SOLUTION



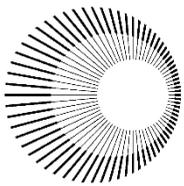
## REDUCING FOOD WASTE

Despite their best efforts to reduce their food footprint and prevent food waste, food is still responsible for almost half of Øya's greenhouse gas emissions, which now represents the festival's biggest area of emissions. "This year, we have delved further into what sustainable food and production is. We are committed to choosing organic raw materials from agriculture that minimizes runoff and pollution, soil depletion and the threat to biodiversity," Kaada says.

Øyafestivalen's considerations revolve around everything from the role of food in the climate crisis, emissions of raw materials and agriculture's relationship with biological diversity to food systems, distributors and consumers.



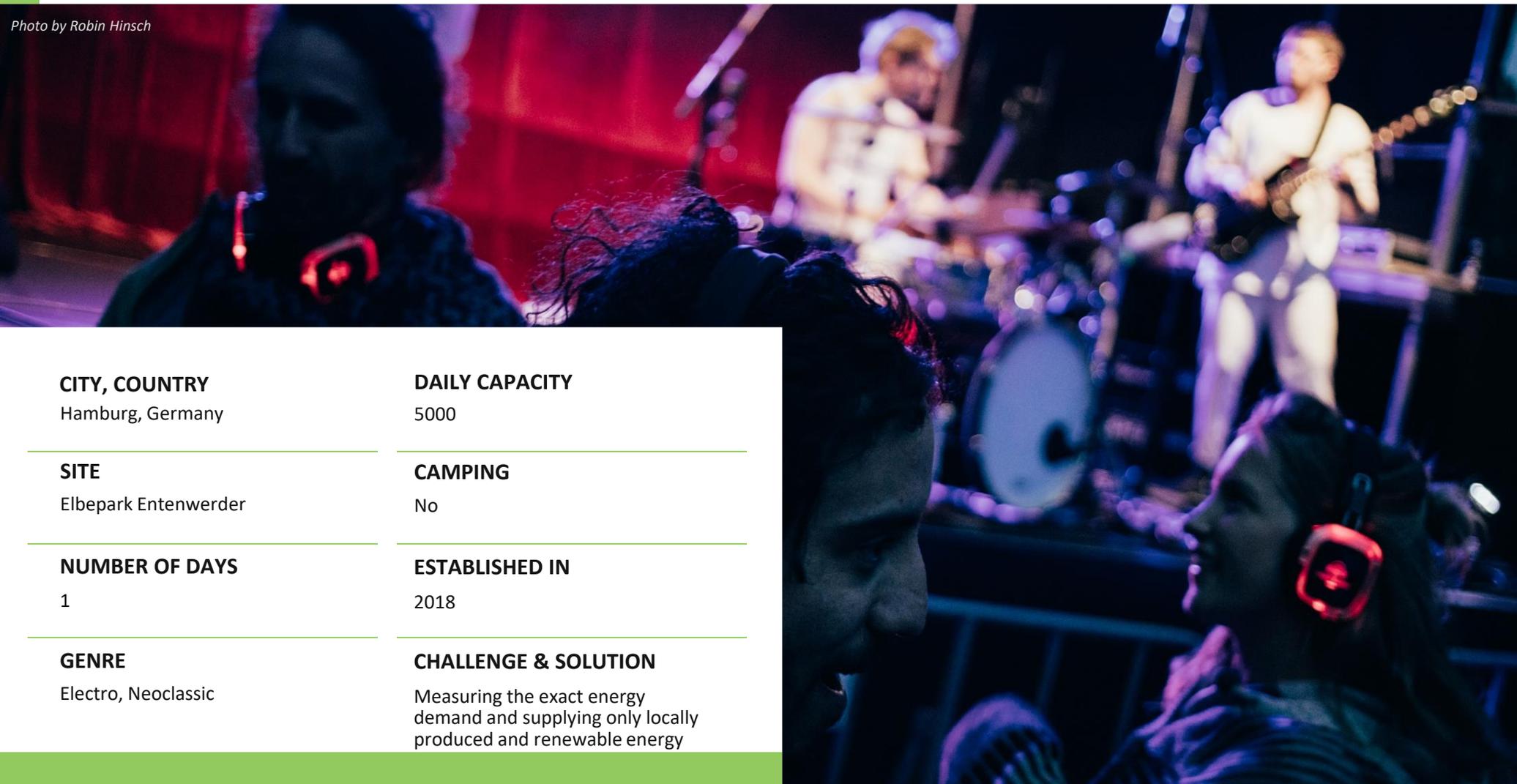
**This year, we have delved further into what sustainable food and production is. We are committed to choosing organic raw materials from agriculture that minimizes runoff and pollution, soil depletion and the threat to biodiversity.**



# FUTUR 2 FESTIVAL



Photo by Robin Hinsch



## CITY, COUNTRY

Hamburg, Germany

## DAILY CAPACITY

5000

## SITE

Elbepark Entenwerder

## CAMPING

No

## NUMBER OF DAYS

1

## ESTABLISHED IN

2018

## GENRE

Electro, Neoclassic

## CHALLENGE & SOLUTION

Measuring the exact energy demand and supplying only locally produced and renewable energy



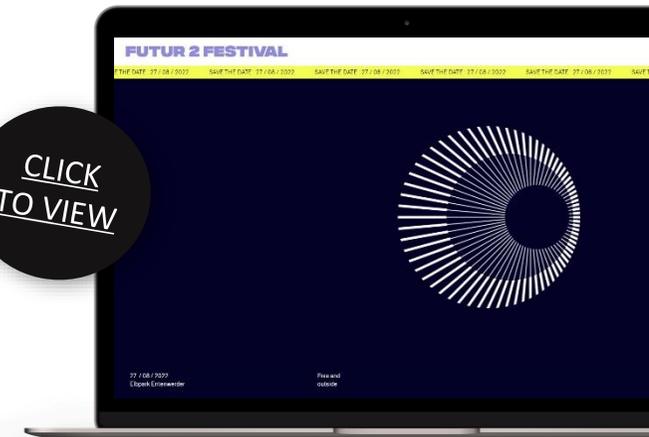
## A FESTIVAL CREATED ENTIRELY AROUND ITS ENERGY DEMAND

Photos by Robin Hinsch

Futur 2 is an “umsonst und draußen-Festival” – an admission-free, open-air festival. What makes Futur 2 special is that the team did not create a festival and a programme before figuring out how much energy they would need to run it. Instead, they approached it the other way round. “We looked at how much energy we could generate in this area using solar power. And from this we deduced what kind of entertainment we can offer our guests, which is the reversal of the usual festival planning,” explains Björn Hansen, the founder and managing director of Morgenwelt GmbH, the company behind Futur 2.

All acts playing at the festival, situated in a park on the shores of the Elbe, can run their backline with very little energy.

Sustainability in all its facets drives Hansen and the team. The festival was created together with Jochen Bader, managing director at hejmo GmbH, to take festivals to the next level and create an event that focuses on the idea of energy efficiency and conscious energy use. Hansen and Bader also work with mechanical expert Ole Hering, whose technical knowledge actualises their, as Hansen calls it, “strategically naïve” ideas.





## PRODUCING EXACTLY AS MUCH ENERGY AS NEEDED

The festival creates only as much energy as it is anticipated participants will need. Therefore, the risk of power outages is increased when more energy is suddenly consumed than planned. For instance, when a trader secretly plugs in a private coffee machine or uses outdated equipment. As Hansen knows, devices are often very energy-inefficient in the catering sector. This means, the challenge is to figure out the exact energy demand of every trader they bring on board. Which devices do they use? How much energy do they consume?

Traders usually give the maximum power that their containers can process. For example, the festival's bar container can use a maximum of 20,000 watts. However, measuring the actual energy consumption revealed that the container needs only 900 watts. Applying this example to the total number of modules on a festival emphasises that the disparity between the potential energy demand and the actual energy use of an event is often quite large.

“

Financially, we have to really strain to achieve this. But we see this festival as an open-air laboratory to test the limits of what is possible.

Photo by  
Robin  
Hinsch

# COMBINING A SOLAR PLANT WITH A BATTERY

Futur 2 uses a solar plant with a maximum power of 22,000 watts. “If the sun shines on it from a cloudless sky and the system is ideally aligned, it produces this amount of energy,” Hansen explains. The plant is connected to a battery storage system that is fed by the solar panels and that supplies the energy for the festival. This means there is always a buffer between the energy that is being generated and the energy that is being consumed. The team purchased the plant themselves so that they could build it according to their specific requirements.

The solar plant produces three phases, each with 5000 watts. The total 15,000 watts power the entire festival, including catering and the Sunplugged Stage. The Pedal-Powered Stage is mainly powered by physical strength as visitors can pedal on stationary bicycles, creating energy. This is an ideal way to illustrate how much energy is needed to power a stage as the pedalling resistance increases with the energy demand. For example, when the bass kicks in or when the lights turn on, it becomes harder to pedal. Should the energy run out, Futur 2 has back-up generators in place that are powered with ethanol, which is more sustainable than diesel.

Essentially, everything Futur 2 does is scalable to other festivals. For example, the solar system can be put up sooner and the buffer storage can be made larger so that it lasts longer after sunset.

Entrance to the festival is free because the team wants to guarantee easy access to people who have never dealt with sustainability before and inspire them by presenting innovations onsite. This is possible because Futur 2 festival receives funding from Hamburg’s Department of the Environment.

Hansen stresses that sustainable solutions cost more, but only because non-sustainable behaviour is subsidised by the general public. Financially, they are not actually comparable, he finds. “If the CO<sub>2</sub> footprint of an individual service or product was the basis for taxation, which I think is the right way to go, then what we are doing would be unbeatably cheap. Financially, we have to really strain to achieve this. But we see this festival as an open-air laboratory to test the limits of what is possible. We are developing expertise and that, of course, also pays off.”



Photo by Robin Hinsch

## EXPLAINING ENERGY TO THE PUBLIC

A condition for the public funding by the city of Hamburg is that the festival must introduce new innovations every year. Hansen says that over the next few years they want to intensify communication to better explain the complex energy processes to the visitors. The festival also plans to make its food and drinks menu more organic, seasonal and local.



“ If the CO<sub>2</sub> footprint of an individual service or product was the basis for taxation [...], then what we are doing would be unbeatably cheap.



# LOWLANDS FESTIVAL



Photo by Bart Heemsker



## CITY, COUNTRY

Biddinghuizen, the Netherlands

## DAILY CAPACITY

60,000

## SITE

Evenemententerrein Walibi,  
Holland

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

1993

## GENRE

Bands, DJs and Electronic Music of  
the alternative genre; theatre, art,  
literature, film, debate

## CHALLENGE & SOLUTION

Changing from diesel to renewable  
energy by building a giant carport  
solar park

For three days in August, a town with 60,000 inhabitants arises in the middle of the Netherlands: Lowlands Festival, also called A Campingflight to Lowlands Paradise. It hosts twelve stages in three areas (among them a cinema and theatre), about 250 acts, dozens of restaurants from all corners of the earth, a large market with everything from clothes and CD stores to a barber's shop, sports facilities, a sauna/hot tub area, its own currency, a local radio station, a daily newspaper and seven luxury campsites. The festival regularly sells out in less than a day.

Lowlands Festival has been making serious efforts to create a more

sustainable event since 2006. Back then, they wrote a report, together with a consultancy agency, that focused on five key areas: waste management, mobility/transport, energy, water/sewage systems, and food and beverage. "We have been working on all subjects, year after year, and improved our operations bit by bit," says Festival Director Eric van Eerdenburg. "We work in accordance with Dutch environmental laws and often perform even better than what they require. Where no laws are in place, we use common sense and perform with respect to nature and environment."



## THE MOST ADVENTUROUS CULTURAL OUTDOOR EVENT OF HOLLAND

## REMOVING ALL DIESEL GENERATORS

Lowlands Festival wanted to run their operations more sustainably and identified electricity as the biggest polluter. “We’ve been investigating how to improve our electrical power situation since 2007,” says van Eerdenburg. The festival used to rely on 103 power generators which demanded 180,000 litres of diesel each edition.

A better alternative was to connect to the local power grid and receive renewable energy through a green tariff. “We’ve been trying to get on the grid since 2007. It was impossible because the infrastructure is insufficient for our power needs and nobody wanted to share the capacity of the infrastructure that was available,” van Eerdenburg criticises. So, the team tried to get involved with solar and wind parks in the area – again without success. “Nobody wanted to let us participate. Dutch laws are also not cooperative in that sense. After five serious attempts to change from diesel to the grid, we thought it was impossible or too expensive.”

The situation changed in 2015, when the solar park developer [Solarfields](#) asked the team if they wanted a solar park at their site. Luckily, the festival owns the land that houses its campsites and parking spaces.

“  
“  
**After five serious attempts to change from diesel to the grid, we thought it was impossible or too expensive.**



## BUILDING 90,000 SOLAR PANELS AS CARPORTS

Because Lowlands didn't want to give up their 35-hectare parking lot, which fits 15,000 cars, the festival suggested to build a carport solar park. After 2 years of investigating and negotiating, they reached an agreement on finance and workflow with Solarfields (SF). "SF had the knowledge and influence to cooperate with all parties and challenges involved: government, owners of the private power grid, Giga Storage batteries, the main national grid and the financing," van Eerdenburg says.

The build-up was finished in 2021; the solar park has been in use since 2022. Lowlands now co-owns a Solar Carport Park that consists of 90,000 solar panels and produces 35 million kilowatt-hours per year, equivalent to 100 festival weekends or about 10,000 households. "It's the largest Solar Carport Parking in the world."

The generated power goes into a private-owned smart grid to which several wind and solar parks in the area are connected and that leads into a Giga Storage battery. These batteries are produced by the company of the same name, which is known for its powerful, solid and large-scale battery storage systems. The Giga Storage battery is

used to store and balance the energy before it leads into the main national grid, van Eerdenburg explains.

With this, Phase 1, as the festival director calls it, is finished. Phase 2 starts in September 2022 with the construction of a private grid on the Lowlands festival site – then the battery can be connected to it. "We will take about 1% of the total annual production of our co-owned Carport Solar Park. The other 99% is sold to a private energy company."

In total, the construction cost about €40 million. Still, van Eerdenburg says: "We expect it to be both an environmental and a financial success for all parties involved. We consider it our moral duty to do what we can to make the festival operations as sustainable as possible. Also, audiences and sponsors nowadays demand a sustainable festival operation, and the solar carport, plus our future investment in the new power grid, makes Lowlands future-proof and opens the festival up to new sponsors."

## PHASE 2 – CONNECTING TO THE GRID

Van Eerdenburg is proud of this achievement, but criticises how unnecessarily long the process was. “The laws for producing and consuming electricity from the grid are very old-fashioned and don’t acknowledge that changing into a sustainable future should be a lot faster. We are idiots to have been working on this for 16 years. Most companies do not do that. They start reacting when laws force them to do so.” According to him, the Dutch law makes it almost impossible for 3-day festivals to

create solutions like Lowlands did, because the festivals would have to pay for energy peaks during the whole year, even if they only need energy for 3 days, and even when they transport it through their own private smart grids.

Nevertheless, van Eerdenburg says that, in theory, a project like this could be created at any festival and that Lowlands is open to advising other events about the process.

“ Audiences and sponsors nowadays demand a sustainable festival operation, and the solar carport [...] makes Lowlands future-proof.



## WHAT’S NEXT?

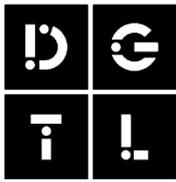
In 2023, the Lowlands team wants to finish Phase 2 and connect to the grid. Another big issue they will focus on is waste avoidance and management.

# 2.2

## MATERIALS & WASTE



Photo by Rob Lipsius



# DGTL



## CITY, COUNTRY

Amsterdam, the Netherlands

## DAILY CAPACITY

20,000

## SITE

NDSM Docklands, an urban area in northern Amsterdam

## CAMPING

No

## NUMBER OF DAYS

3

## ESTABLISHED IN

2013

## GENRE

House, Techno; arts, innovation

## CHALLENGE & SOLUTION

Rethinking waste by separating and treating it like resources





## A LIVING LAB FOR CIRCULARITY AND REGENERATION

DGTL has an ambitious goal: to become the first circular, climate-neutral major event. The festival constantly searches for sustainable innovations and has created the Revolution Foundation to share their knowledge. “With the foundation, we are making lots of events more sustainable not just in the Netherlands, but also in Europe. We are helping with the Green Deal Circular Festivals initiative to create a norm for the whole event industry,” Mitchell van Dooijeweerd, sustainability manager at the Revolution Foundation, explains.

DGTL focuses on five areas: resources, energy, mobility, sanitation and food. “We want to make everything specific, understandable and measurable – and applicable to cities as well to help create circular innovation cities,” van Dooijeweerd says. Having established editions in Bengaluru, Santiago, São Paulo, Barcelona, Tel Aviv and Madrid, DGTL also strives to become the first regenerative event organisation on a global scale. Besides music, the festival offers an experimental, cultural and arts programme.

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TO VIEW





## NO MORE RESIDUAL WASTE

DGTL wants zero residual waste. In order to recycle materials that are thrown away, they need to be separated from each other to create what van Dooijeweerd calls “mono-flow,” a collection of a single material. “We need to find ways to change the linear behaviour of visitors – which is take, make and waste – to a circular behaviour, where they return the resources,” the Sustainability Manager explains.

At festivals, visitors tend to drop smaller pieces of garbage like food wrappings simply where they stand. Keeping the grounds free of trash is another aspect of avoiding residual waste that DGTL is working on.

“  
We need  
to find ways  
to change  
the linear  
behaviour of  
visitors – which  
is take, make  
and waste – to  
a circular  
behaviour.”

Photo by  
Rob  
Lipsius

# MAKING EVERYTHING REUSABLE, RECYCLABLE OR COMPOSTABLE

DGTL has adopted many measures in line with the 7 Rs of waste management: Rethink, Refuse, Reduce, Repurpose, Reuse, Recycle and Rot. To better understand what happens to materials at the festival, DGTL has created a Material Flow Analysis. “We want to know exactly what’s coming into our event, what is leaving and how it is leaving. Based on that, we can find processes to create mono-flows and can refuse things that we don’t want to have. So, we have zero residual waste during the event, just minimal during build-up and some during break-down.” In 2022, DGTL ended up with about 20 grammes of residual waste per visitor per day – in 2019 it was 93 grammes.

Further, DGTL completely forgoes residual waste bins. Instead, there is a limited number of recycling points in which volunteers separate the waste. “We only have four or five places where visitors can bring their resources back to us. We will put them in the right bin, so we guarantee that we have a clean mono-flow that’s not contaminated.” DGTL has three types of teams handling waste: teams that collect waste, teams that transport the collected waste to the recycling points, and teams that separate the waste at these recycling points.

To keep waste from ending up on the ground, DGTL installed a strict policy that required them to change the way they handle certain things.

For example, ice cream wrappings. They are no longer given to visitors along with the ice cream, but collected behind the counter. They can’t be recycled in the regular plastic stream, but the festival found a company which created a way to melt them and transform them into bins, boards and plates, for example.

At the circular, plant-based food court, a composting machine by the Dutch company [Ecocreation](#) helps avoid residual waste. Food scraps, plates, cutlery and napkins are all biodegradable. “We collect everything in the right bins, and then we make compost out of it on the event site within 24 hours. That’s something the visitors can watch as well.”

A circular hard-cup system makes single-use cups unnecessary. Decorations for stages are modular. Signage is replaced by reusable LED screens. “And we have a circular sanitation programme, where we convert all human waste into fertiliser and compost, which we can grow food with afterwards,” the Sustainability Manager adds.

DGTL explains to its visitors what happens to the materials during and after the festival and shows them how and why it happens – to make visitors aware of environmental issues, but also to make them return their trash bags.

## THE SOLUTION



## WASTE IS NOT WORTHLESS – IT’S A RESOURCE

Considering waste as materials rather than trash is an important way to rethink resource management, van Dooijeweerd says. “What I learnt is that you should process it in a way that people can see that it is not a wasted material but a valuable resource.” This can be conveyed with a simple trick: “People really see the value of materials if you separate them and put them in crates instead of bags, because then everything looks nice, clean and tidy,” the Sustainability Manager reports.

It also helps to let visitors experience processes first-hand. “When we show our compost to someone and we let them feel and smell it, then they see the value of the product.”

When talking about the economic aspect of the waste treatment, all the hands needed to separate the waste and the time spent communicating a whole new way of organising events to visitors, “definitely costs a lot of money,”

van Dooijeweerd says. But, it is necessary because the festival has found that letting visitors separate waste on their own doesn’t work. “We got a lot of media attention as well, because we are doing the right thing and it’s getting acknowledged. In the end, we create a stronger position in the market.”

And some sustainable measures even earn the festival money: “For example, if you have to let your residual waste get processed, it costs about €200 per tonne, but if you sell cans or clean mono-flow PET to processors who make new products out of it, it will earn you money.”

One unfortunate lesson that the festival team has learnt is that the legal regulations often do not favour recycling. According to the Sustainability Manager, waste processing companies can earn more money on residual waste than on separated waste. “So, it’s kind of a not a good incentive to let them recycle everything,” he says.



## WHAT’S NEXT?

DGTL wants to intensify their work on the social component of sustainability. “The social foundation is really important for us as well, so we have implemented a diversity and inclusivity programme with training for the crew and continue to focus on creating a safe space for everyone,” van Dooijeweerd says.

The festival also wants to create a stronger local impact, that means creating jobs for people living in the neighbourhood, traineeships, and income for local restaurants and hotels. Naturally, the search for sustainable innovations and the improvement of the circular system will continue as well.

# & BODY & SOUL FESTIVAL



## CITY, COUNTRY

County Westmeath, Ireland

## DAILY CAPACITY

5500

## SITE

Ballinlough Castle

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

2010

## GENRE

From light electronica to world and traditional music

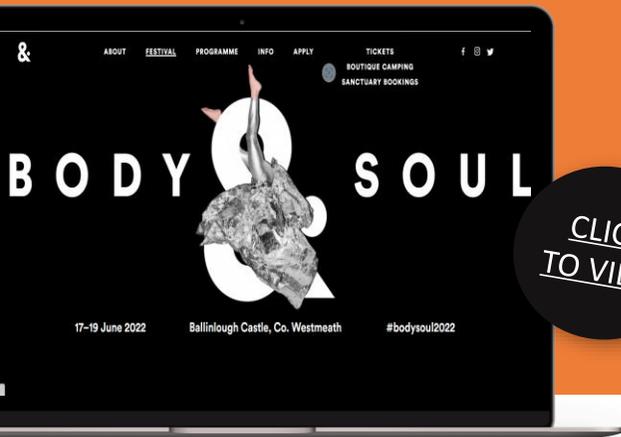
## CHALLENGE & SOLUTION

Improving materials separation, reuse and recycling rates by engaging with local waste handlers

Body & Soul Festival, which takes place every year in June on a beautiful estate in the Midlands in Ireland, has grown from 1500 guests in 2010 to 15,000 in 2017. What's special about it is that the festival is now getting smaller again: in 2022, they offered a limited number of tickets; just 5500. Megan Best, the festival's operations manager, explains that during the pandemic break the team realised that, as the festival had grown over the years, it had turned "into the beast that it was in 2017" and lost a little bit of "that sparkle and specialness".

To make it more intimate again, the team decided to downsize in 2019 and again in 2022. "We said: 'let's go back to somewhere closer to what the original thoughts, feelings and ethos of it was and something that we all want to put on'."

Body & Soul stands out because of its art and aesthetic; sustainability has also been a running theme. "It's very much based around holistic ideas and wellbeing," Best adds.



## DOWNSIZING TO RETURN TO THE ORIGINAL SPIRIT

# IRELAND LACKS SUSTAINABLE EVENT SUPPLIERS

A big challenge for Body & Soul is designing and understanding what kind of infrastructure they need to make the festival more sustainable. According to Best, the operating conditions in Ireland don't favour sustainable events. The reason is that there's very little infrastructure and expertise in Ireland for sustainability at festivals. "We only have one supplier who can do renewable energy. We don't have any suppliers that can do natural or composting toilets. We have one supplier that can do reusable cups and that only opened up last year."

To try to encourage sustainability at events, Body & Soul festival has been "pushing the envelope in this space": Best and one of her business partners co-founded [Native Events](#) in 2017 to supply sustainable equipment for events and festivals and has partnered with Body & Soul on sustainability each year since. "Native Events was born out of frustration of not having the availability of sustainable infrastructure in Ireland," Best emphasises. "So, there's appetite and awareness of Body & Soul to be a sustainable festival. But we're only about halfway there because there's also wider conditions at play."

This drive also led to wanting to gain a better understanding of how materials and waste are handled at the festival.

“ There's appetite and awareness of Body & Soul to be a sustainable festival. But we're only about halfway there because there's also wider conditions at play.

THE CHALLENGE



# COOPERATING WITH EXISTING COMPANIES TO MAKE THEM MORE SUSTAINABLE

To improve recycling rates and get better at source segregation, the team reviewed the contracts for the waste handler and litter pickers in 2014. Back then, the festival team talked to their waste handler and litter pickers to see if they could do a better job at waste segregation. When they didn't agree to the festival's terms, Body & Soul tendered out the waste management and separated the waste handler and litter pickers contracts (these contracts are usually joined together, Best says). Luckily, they found a waste haulier with a focus on recycling. After an "incredibly challenging" initial year, the original litter pickers returned to Body & Soul, agreeing to separate the waste they collect.

Between 2015 and 2019, the festival developed the project further with everyone involved, including the landowners and the local community. "We really gave it a lot of focus and emphasis," says Best. As a result, Body & Soul

was able to improve recycling rates to 60% on-site, plus a further recovery rate afterwards. Over the course of 2020 and 2021, during the pandemic, Native Events continued to work with the waste hauliers by visiting their material recovery and compost facilities to better understand the end destination of the materials produced by festivals.

One of the things Body & Soul put in place was a three-bin system front of house; specifically in the traders' areas, they briefed the litter pickers and policed them when they emptied the bins into the skips. They also hired volunteers (called Earth Guardians) to monitor these bin stations and engage with the attendees so that the waste material flows would be kept separated. The main challenge here is scheduling and communicating, said Best.



## GIANT POSTERS DELIVER A QUICK WIN

Body & Soul have also been working on tackling their campsite waste since 2015; the team created a new campsite, called “Us and You”, that didn’t cost more than regular camping but had “some nice incentives”. The festival asked everybody who stayed there to sign a pledge to leave no trace, to use the bins correctly and to be respectful to each other. “It was a huge success. Nothing was left behind in the first and second year.” Actually, people bought into it so much and had such a lovely time in there that people who stayed outside of it started wanting to be in there, Best reports. Over the course of six years, the “Us and You” camp took over half of the festival’s total campsite.

As a method for a ‘quick win’, Body & Soul printed A0 posters of untidy campsites and put them up in

campsite areas that they knew were hot spots for people to be really messy. Next to them, they would put up other posters with a simple message like ‘Please take your tents home’. And it worked: in a 20-metre diameter around these posters the floor was spotless, Best reports. Beyond that it would get messier again, though.

The biggest lesson festival organisers can take away from Body & Soul is that it’s important to bring everybody into the room and to spend time working and consulting with the contractors, Best says. Everybody from waste handlers, litter pickers, to electricians, plumbers and even the local community should be considered as part of the team.



## WHAT’S NEXT?

Body & Soul is part of the Green Deal Circular Festivals initiative of Netherlands-based Green Events International and the Dutch government. This means Body & Soul is part of a five-year roadmap to circularity. In 2022, the festival will thus introduce reusable cups. Body & Soul will pilot a circular food court with an on-site bio digester and will bring in natural toilets from the UK – a first for the festival and, in fact, for any festival in the country.

Photo by Jesper Bjarke Andersen



## CITY, COUNTRY

Roskilde, Denmark

## DAILY CAPACITY

130,000

## SITE

Countryside south of the city

## CAMPING

Yes

## NUMBER OF DAYS

8 (4 camping, 4 music)

## ESTABLISHED IN

1971

## GENRE

Rock, Pop, Indie, Electronic;  
upcoming artists, arts and activism

## CHALLENGE & SOLUTION

Avoiding/cleaning up huge amounts  
of waste by involving the audience



## VOLUNTEERS, PHILANTHROPY AND A CELEBRATION OF LIFE

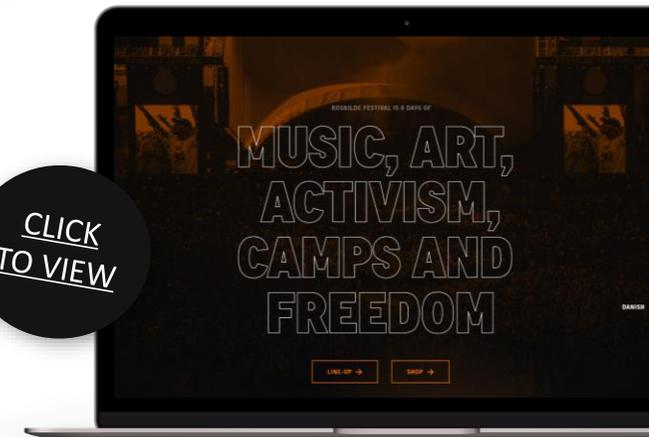
Around 30,000 volunteers help create Roskilde Festival each year. This combined with 80,000 full tickets and thousands of single-day tickets, means Roskilde becomes a temporary city of 130,000 people every year. Sanne Stephansen, head of sustainability at Roskilde Festival, describes it as a celebration of life, community and everything that's unique. It is organised by the non-profit Roskilde Festival Charity Society, which donates the festivals revenue to support humanitarian and cultural work.

The festival is known for finding new artists and delivering surprising musical experiences. Visitors also appreciate the festival for the four days of camping, music and arts before the festival site opens. "There are more than 90 different program features at the camp site, but a lot of content is also created by the participants

themselves. I guess that's why there are rumours that some people stay put on the campsites and don't watch the concerts," says Stephansen.

Festivals can be a window to the future: They are a bit different each edition and show that change is possible and necessary. The structures and systems that festivals tap into are dictated by their surroundings, meaning festivals have the same systemic problems as society as a whole. It is interesting to see which behavioural differences festivals can create and what kind of behaviour certain systems do or do not support. This idea is investigated at Roskilde Festival every year.

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## FESTIVAL SITES VS CAMPING EQUIPMENT

Stephansen knows that “Denmark is the biggest producer of municipal waste per capita in the European Union”. According to [Statista](#), each inhabitant generated an average of 844 kilograms of waste in 2019. One of the biggest challenges for Roskilde is how much waste the festival creates and how much waste and equipment participants leave behind at the campsites. Roskilde wants to solve its problems in an innovative way; that’s why they draw upon municipal waste management and waste prevention processes, but at the same time, giving them a new, creative touch.

“It’s the same challenges that we face in society, as a country, as a world in general,” states Stephansen. One example for this is waste; a lot of Roskilde’s waste is created by festival goers leaving their tents and camping gear behind. There are many factors outside the festival’s control, e. g. cheap, poor-quality tents sold at discounters, so festivals need to offer better solutions to their visitors.

“

**Denmark is the biggest producer of municipal waste per capita in the European Union.**

# CREATING CAMPSITE COMMUNITIES

The fields full of tents left behind indicate that they are not needed throughout the rest of the year. To combat this, Roskilde is about to establish renting out tents, mattresses and gazebos to festivalgoers, starting in 2022 with 4000 units – these will be set up carefully in order to demonstrate the behaviour that Roskilde wants to see from its audience, whilst also creating new business opportunities for the festival.

Another solution is in the community camping areas project where the festival communicates what kind of behaviour they expect from their participants, e. g., “Leave No Trace Camp”, “Clean Out Loud Camp” and, starting in 2022, “Common Ground”. For this project, they teamed up with different kinds of organisations and communities who wanted to support areas of the campsite. The project started in 2011 with 1200 participants. In 2019, the number went up to 28,000! “It is about supporting sustainable behaviour, creating dialogue with participants and making a social contract so that everyone on the site knows what we expect from them and what to expect from us,” explains Stephansen.

Roskilde’s approach is making it easy to do the right thing for the audience through implementing helpful guidance like signage for waste management systems that can easily be decoded and followed.

The festival intensified their work in 2019, when they created a [detailed plan](#) for a circular festival that would focus on waste and resource management. In 2022, for the first time, there will be deposits on areas on the campsite so participants will only get their money back after they have cleaned up after themselves.

To be able to tap into new ideas, Roskilde partners with young start-ups (mainly within the “Circular Lab” project) to give them the opportunity to test their sustainable solutions in the temporary festival environment. The hope is that, in the long run, wider society can use some of these solutions.

## THE SOLUTION



## FOSSIL-FREE TRAVEL AND TRANSPORT

Roskilde wants to do more with travel and transportation and is investigating, how to introduce fossil-free travel and transport. This might require them to cut costs in other areas, but Stephansen is sure it will pay off because they use fewer natural resources – which in their opinion, is the true currency.

“The way that we talk about sustainability as something that doesn't have an end point can be exhausting; when are you done? when is it enough? I guess you have to come to the conclusion that it never is and there's always going to be a better solution being developed, so, I guess coming to terms with the fact that it's an ongoing process is something that we're always going to be working on.”



“

I guess you have to come to the conclusion that [...] there's always going to be a better solution, so, I guess coming to terms with the fact that it's an ongoing process is something that we're always going to be working on.



## CITY, COUNTRY

Bordeaux, France

## DAILY CAPACITY

5000

## SITE

Darwin Ecosystem, a rehabilitated wasteland of former military barracks

## CAMPING

No

## NUMBER OF DAYS

3

## ESTABLISHED IN

2015

## GENRE

From Electronic to Hip Hop and World music; conferences, theatre, dance, poetry, exhibitions, street-art, urban sports

## CHALLENGE & SOLUTION

Reducing residual waste by strictly separating material flows



Photo by Remi Bedora

To understand Climax Festival, you have to understand where it takes place. Darwin Ecosystem is an example of a successful urban transformation. The former wasteland of the abandoned Niel military barracks has now become a centre for entrepreneurs focused on social and environmental issues and for culture.

When the military moved out in 2005, the barracks were destined to be demolished and graffiti artists became attracted to the site. A few years later, Climax Festival's founder, Philippe Barre, purchased a part of the land to establish the Darwin Ecosystem. In the meantime, Darwin has turned into an eco-responsible business incubator as well as a centre for culture including a shared work space, a skate park, space for street art, urban agriculture, shops, a winery and a

restaurant with 100% organic and 70% local food.

"The whole objective is to demonstrate that we can implement new models that bring both economical value, but also value for the people and for the planet," explains Barre. "Darwin demonstrates that the ecological and societal transition of a city is achievable and desirable."

Darwin houses many cultural events that try to connect people with environmental and social issues and give them an idea of how to take action themselves. One of the major events is Climax Festival. Each edition focuses on a specific issue such as ocean pollution or biodiversity loss, which forms the lifeline of the programme. The diverse music and artistic programme is underpinned by panels with activists and scientists. "We are convinced that art is an efficient medium to connect individuals with global issues," Barre says.



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# WHERE CULTURE, SUSTAINABILITY AND SOCIAL BUSINESSES COLLIDE





## REDUCING RESIDUAL WASTE AND RECYCLING CIGARETTE BUTTS

“Do more and better with less” is the philosophy of Darwin Ecosystem. “Climax Festival is different from other festivals in the sense that it’s not just a once-a-year event, but the momentum of an ecosystem of players engaged all year long in sustainable practices. Thus, minimising the environmental impact of the festival has been taken into consideration since day 1. The whole team working on the festival is involved in finding solutions to our sustainability challenges, from coordination to production,” says Nathalie Bois, General Coordinator of the festival.

Naturally, this also goes for waste. The festival has already introduced a series of measures to reduce it, but there is room for improvement, says Bois. “Cigarette butts are still our number one enemy,” she states, because they are both difficult to collect and to recycle. Other aspects are out of the direct control of the festival, for example the packaging of required products and materials. Motivating suppliers to optimise their packaging is a significant challenge when it comes to materials and waste.

“  
The whole team working on the festival is involved in finding solutions to our sustainability challenges, from coordination to production.”

Photo by  
Benjamin  
Pavone

# STRICT WASTE SEPARATION & COOPERATING WITH SPECIALISED COMPANIES

Climax Festival has created 10+ categories for waste segregation during the festival, for example, plastic, organic, paper, glass, electronics, chemicals and cooking oils. They partner with several waste management companies to ensure the proper treatment of the different material streams.

The festival has the advantage of taking place in a location that runs year-round. “We have a long-term partnership with a waste recycler, and all the bins that we use on the festival we use every day in Darwin. So, the waste management process is already organised and the team knows what to do,” Bois says. Thus, 87% of the waste created during the previous edition could be recycled.

Further, 1.5 kilogrammes of cigarette butts were collected. The goal for 2022 was to find a company which can recycle them. At the time of writing, the festival was negotiating with a company in close vicinity to Bordeaux which can turn recycled butts into plastic boards.

The second step, Bois says, is to change the behaviour of festival goers, so that they don't just carelessly throw their cigarette butts onto the ground. To find out how to best achieve this, the Climax team has been testing different

solutions like portable ashtrays during other Darwin events leading up to the festival. “It's hard to find the right balance between being too pushy and creating a good mood, while trying to make people behave respectfully even when partying,” the General Coordinator says.

What's more, the scenography at Climax is made with upcycled wood from construction sites and with the help of the start-ups in Darwin. All tableware is 100% biodegradable. The drinking cups are reusable, but Bois acknowledges that due to a lack of a better alternative, they are still made of plastic. The festival provides a free 'water bar', eliminating the need for bottled water. They have a no-flyer policy and no paper tickets, encouraging festival goers to use the digital format.

In Darwin, dry toilets and urinals are used during major events like Climax. Solid and liquid waste are separated and turned into compost and fertiliser, respectively. “For this year's event, our partner estimates we will save 100,000 litres of water, create 3600 kilogrammes of compost, and collect 2400 litres of urine to be transformed into bio-fertiliser,” Bois says.

## THE SOLUTION



## CHANGING PEOPLE'S BEHAVIOUR

Working with suppliers to optimise their product packaging will continue to be of importance to Climax. “Our main challenge is about accompanying behavioural change, from our suppliers and festival goers to artists and their teams,” Bois says.



“

Our main challenge is about accompanying behavioural change, from our suppliers and festival goers to artists and their teams.

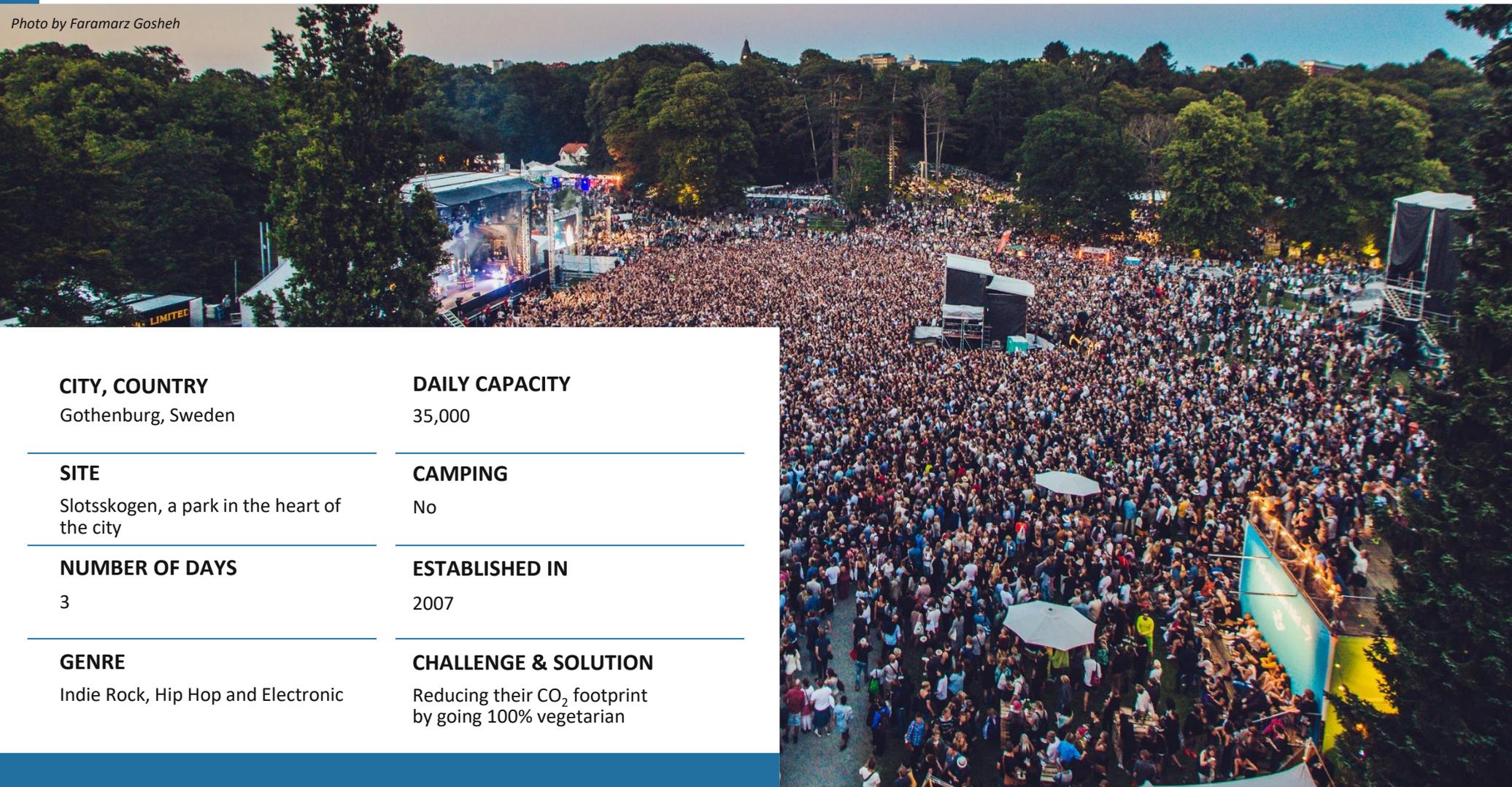
# 2.3

## FOOD & DRINK



Photo by Bernd Wackerbauer

Photo by Faramarz Gosheh



## CITY, COUNTRY

Gothenburg, Sweden

## DAILY CAPACITY

35,000

## SITE

Slotsskogen, a park in the heart of the city

## CAMPING

No

## NUMBER OF DAYS

3

## ESTABLISHED IN

2007

## GENRE

Indie Rock, Hip Hop and Electronic

## CHALLENGE & SOLUTION

Reducing their CO<sub>2</sub> footprint by going 100% vegetarian



## THE PLACE TO BE DURING THE SWEDISH SUMMER

Photo (below) by Hilda Arneback

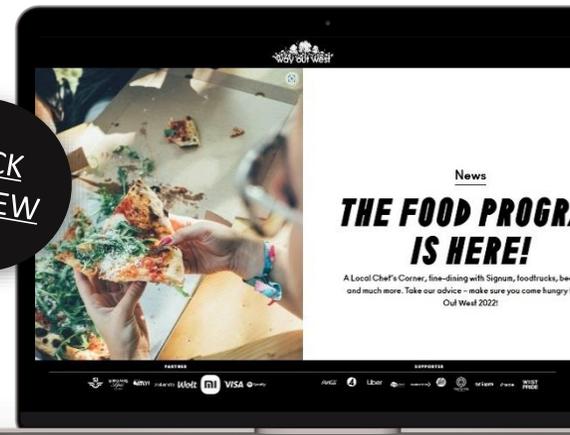
The city of Gothenburg has always valued live music. About 15 years ago, when the local government asked the promotion agency Luger if it was willing to help establish a music festival right in the city centre, the agency didn't think twice. "Back then, it had come to a point where the festival scene in Sweden needed to evolve," says Fredrik "Matazz" Holmstedt, production manager for Way Out West, who has worked for Luger and Live Nation since 2005. So, as a reaction to the old-school camping festivals, Luger created a trendy, urban festival, "hipster, but in a modern way", Holmstedt calls it. No camping, no need for a car.

The site, Slottsskogen, is the leafy and lush heart of Gothenburg. From the park, much of the city is within walking distance. This

comes in handy when, after the festival site has closed at midnight, the party continues in the city's venues as part of the club concept Stay out West. Since 2011, Way Out West Film, the third largest film festival in Sweden, has been another vital part of Way Out West (WoW).

Besides live music, Gothenburg has a strong focus on sustainability. Consequently, creating an eco-certified festival was one of the first demands the authorities made to Luger. In 2013, Way out West became the first music festival in the world to have ISO 20121 certification. This indicates sustainability on three different levels: environmental, economic and social.

CLICK  
TO VIEW



# REDUCING CO<sub>2</sub> EMISSIONS CAUSED BY FOOD AND DRINKS

After its creation in 2007, Way out West quickly gained traction across many platforms. “The festival was trendy and it was very important for people to be there,” Holmstedt says. The team quickly realised that, with their reputation, they had an opportunity to help form people’s opinions and promote values like sustainability and equality. “And, you know, we’re anarchists, old punk rockers, we always question society. All of a sudden people listened to us and actually understood what we were trying to say.”

The team found that food is an important factor when making a festival more sustainable and connecting people to the topic on a casual basis. In 2010, WoW cooperated with the Business School of the University of Gothenburg to investigate the effect the festival has on tourism and the city’s image. Part of this investigation was a CO<sub>2</sub> analysis. The result: 62% of the festival’s CO<sub>2</sub> emissions were caused by its menu. “When we saw how much of the resources we used went into food, we made a bold decision to go all vegetarian in 2012,” Holmstedt recalls.

In 2012, the scientists repeated the study and found that the menu was now responsible for

only 30% of the festival’s emissions. Moreover, although the festival had added another day in 2012, the overall CO<sub>2</sub> footprint was remarkably 40% lower than it had been in 2010. The results were published in the paper ["When a Music Festival Goes Veggie"](#).

“

**When we saw how much of the resources we used went into food, we made a bold decision to go all vegetarian in 2012.**

THE CHALLENGE



# GOING VEGETARIAN AND LABELLING THE CO<sub>2</sub> EMISSIONS OF ALL DISHES

Way out West announced their decision to go meat- and fish-free only one day before the festival in 2012. In a time when vegetarianism was rather unheard of in Sweden, they faced backlash. “Everyone thought that this was just a PR trick to get attention. Some parts of the media tried to point us out as the bad guys,” says Holmstedt. On the first day of the 2012 event, a local newspaper even handed out free hotdogs in front of the park’s gates, “so people wouldn’t starve.”

“But the general opinion very quickly made the newspaper look like the bad guy after the people realised that we weren’t telling them what to eat.” According to Holmstedt, the nearest steakhouse is only a 15-minute walk away. “We were just setting an example by correcting something that we realised was wrong in our resource use. It’s not about what you eat; it’s about us producing a festival.” Meanwhile, 70% of a dish must be plant-based, but the festival is reluctant to go 100% plant-based, because not a lot of crops can be grown in Scandinavia, making it difficult to procure foodstuff locally.

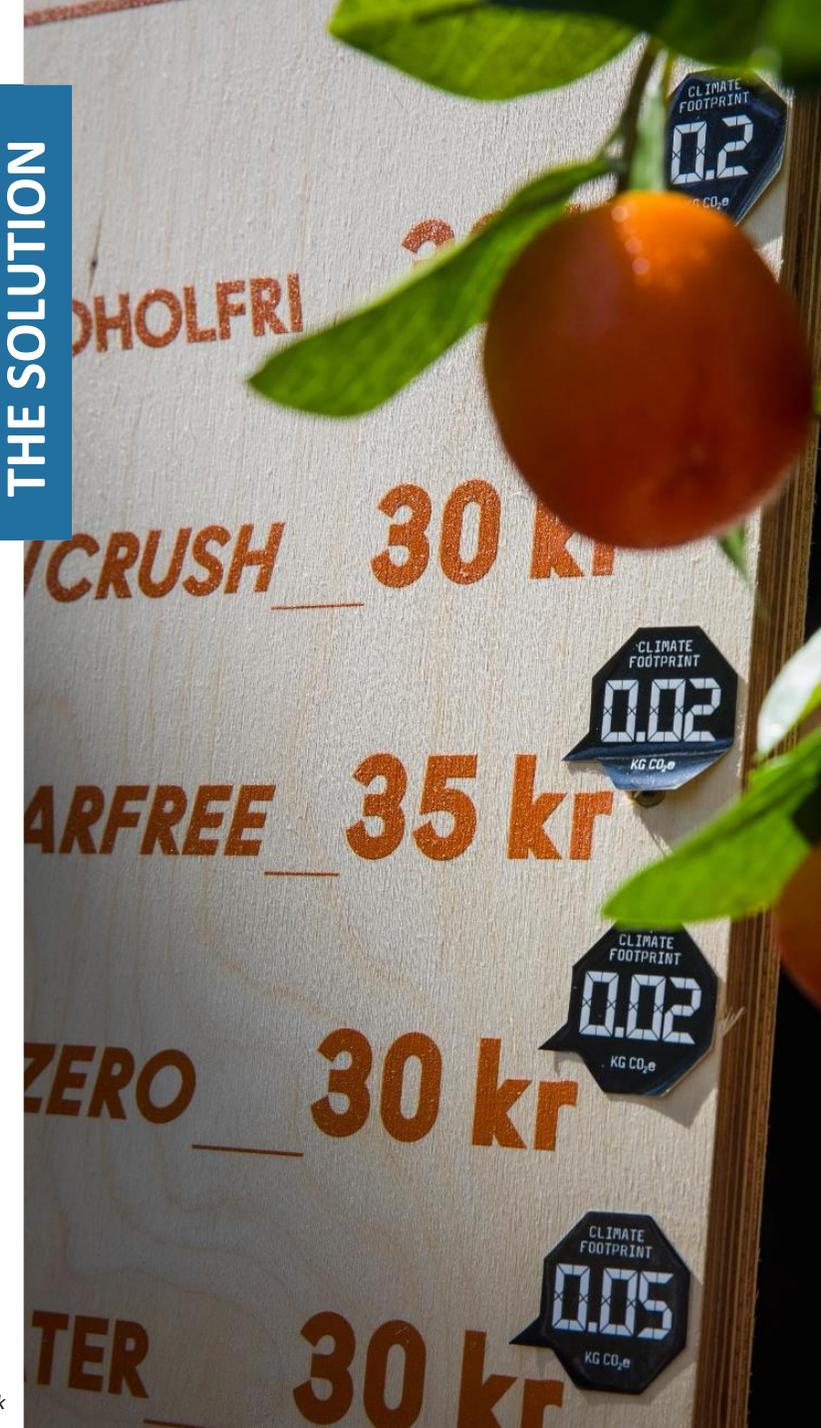
Dissecting the numbers reveals that drinks (42 tonnes) are actually responsible for more emissions than food (25 tonnes). Thus, WoW keeps developing their drinks menu with their partner brewery Spendrups. In 2013, they introduced organic beer to the festival. Two years later, they started offering a non-alcoholic bar with the same stock that regular bars have. “This showed very

clearly that their main focus was not just to sell beer. They want to offer a good experience and be associated with something positive. And that’s a very strong argument in all our partnerships. We ask them to see the big picture instead of the little bubble that most people are in.”

The 2019 edition was the first to be completely “climate transparent,” as the festival calls it. This means the climate footprint for food, drink, transport, accommodation and all energy, down to portaloos usage and mobile charging stations, is reported. Two companies helped gather the data, with one of them focusing only on food and drinks. Every dish was analysed and received its own CO<sub>2</sub> footprint label. “Instead of just the price influencing what people chose, you also had a sustainable aspect in it,” Holmstedt says. The inspiration for this label came from the Swedish food company Oatly, which petitions for CO<sub>2</sub> labels on all groceries and is another of WoW’s partners.

The festival follows Sweden’s WWF “One Planet Plate” concept. This recommends that in order to stay within the limit of a maximum 1.5°C global warming, a meal should not generate more than half a kilogramme of CO<sub>2</sub>e. In 2019, the carbon footprint of an average meal at WoW was 0.38 kg CO<sub>2</sub>e, and the majority of food stalls received a “One Planet Plate” sticker for staying below 0.5 kg. In the WoW app, visitors can filter the dishes according to categories such as “vegetarian” and “vegan,” making it easy for them to make sustainable choices.

## THE SOLUTION



## WORKING WITH PARTNERS TO CREATE LONG-LASTING EFFECTS

Holmstedt is convinced that working with partners to improve their regular business, even beyond the festival, is the best way to make waves. For example, after the Swedish fast food chain MAX Burgers had sold their vegetarian burgers for the first time at WoW, sales of their veggie options in their regular restaurants skyrocketed to about 50%, Holmstedt tells us.

“We want people to take what they’ve learnt at our event into their everyday life. So, it’s very important to code your message correctly. Don’t be vague and don’t leave anything open to interpretation.” This seems to work for WoW; 15% of the festival’s visitors say they eat more veggie food after they’ve been to Way Out West. The production manager is convinced that “as long as the audience demands better alternatives, there will be better alternatives. It’s up to the attendees to put some pressure on

the events and say: ‘I’d rather pay more for a better product if it comes down to sustainability.’”

Not much food goes to waste at WoW: only 3% of the 83 tonnes of total waste is compost. This is because the festival prefers that vendors run out of food on the last night and explain to the visitors that this is “for the big picture”. Vendors also have to ensure that they can return their leftover foodstuff to the shops where they bought it.

Data is the best foundation to improve sustainability: “With a starting point you can only make it better, but you need to know where you are,” Holmstedt says. However, festivals shouldn’t rush it. “We need to allow time to collect the data. It can’t be done overnight. You can’t improve overnight. We are on a long journey.”



## WHAT'S NEXT?

The biggest challenge for Way out West remains changing people’s mentality and expectations; not by force, but by communication. “Just looking at the world, where it’s now, it’s going straight to hell,” Holmstedt says. “So, whatever we can do for future generations to fix the things that have gone wrong, that’s what we need to do. And we need to do it together.”



Photo by Ingmar Wein

### CITY, COUNTRY

Munich, Germany

### SITE

Olympic Park (summer)/  
Theresienwiese (winter)

### NUMBER OF DAYS

2 x 4 weeks

### GENRE

Everything from Jazz to Rock, Pop  
and World music

### DAILY CAPACITY

1.5 million visitors in 60 festival  
days = Ø25,000/day

### CAMPING

No

### ESTABLISHED IN

1988

### CHALLENGE & SOLUTION

Creating an organic supply chain by  
working closely with restaurateurs



## A CELEBRATION OF INTERNATIONAL EXCHANGE AND ORGANIC, FAIR-TRADE PRODUCTS

Theatre productions, performances, music, the “Market of Ideas” with international handicrafts and 100% organic food from all over the world as well as a strong commitment to global justice and environmental protection; this is Tollwood Festival.

Access to the festival grounds is free of charge, as are over 80% of the cultural events taking place at the festival. Tollwood funds this through fees for stalls at the “Market of ideas” which has also allowed the festival to remain largely independent.

Tollwood Festival is implementing a sustainability strategy that tackles a lot of areas, says Johanna Kämper, project manager for “People and Environment”: The festival runs on 100% green electricity. The food sold at the festival comes entirely from organic cultivation and, if it comes from countries in the Global South, is Fair Trade-certified. The dishes are served on reusable tableware, and plastic is banned

in order to minimize residual waste. The festival has a recycling concept and its own recycling yard: strict waste separation is practiced both in the visitor area and behind the scenes.

The festival encourages its visitors to choose eco-friendly travel, they offer shuttle buses, a bicycle repair shop and admission tickets that include a free ticket for local public transport. “We are happy that around three quarters of our guests get to the festival in an environmentally friendly manner,” Kämper says. As well as this, unavoidable greenhouse gases, caused for instance by the arrival of artists or haulage, are offset.

At Tollwood’s “Market of Ideas”, where up to 200 exhibitors offer handicrafts, textiles and jewellery from across the world, high demands are placed on the products in terms of animal welfare, environmental protection and fair trade.



Photos by Ingmar Wein (above) and Bernd Wackerbauer



## BUILDING ORGANIC SUPPLY CHAINS BEFORE CERTIFICATION EXISTED

When it comes to food, Tollwood is known for its international specialities from more than 20 countries. Since the beginning, the organisers have ensured that all basic foodstuffs are sourced from organic farming. “After all, agriculture is a significant contributor to and also affected by the major ecological crises of our time, especially the climate and biodiversity crisis,” Kämper explains. When the festival started, there was no organic certification for major events, and getting organic food was more complicated than nowadays. Building organic supply chains, getting food businesses on board with their vision, charging higher prices for

organic food, and a lack of organic beer were major challenges for Tollwood.

In Kämper’s experience, the biggest issue is another, though: “The biggest challenge, regardless of which sustainability issue you tackle, is not the challenge itself, but a negative mindset: ‘It can’t work, it won’t work, it’s impossible!’ We got this reaction when we tackled our catering system, but you can’t let that unsettle you. Sustainability is a question of values and attitude – everything else is craftsmanship.”



**Sustainability is a question of values and attitude – everything else is craftsmanship.**

# WORKING TOGETHER TO CREATE SUSTAINABLE CHANGE

Changes are only sustainable if you do them in the best way for everyone; that goes for the food traders, the guests and the organisers, Kämper says. “Is the supply chain not working yet? Then let’s build one together. Are prices getting too high? Then we work together on the costing. There’s no Munich brewery that offers organic beer? Then we keep talking until an organic beer is brewed for Tollwood.” The team sat down with restaurateurs, built supplier relationships, worked together on recipes, reduced the number of meat dishes and promoted vegetarian/vegan dishes.

This approach means the Tollwood team has taken on the role of building a bridge between their food traders and wholesalers and producers. “We have communicated a clear objective and brought everyone’s needs together: ‘Tollwood is becoming organic and will remain so.’ This means the producers had a clear and reliable incentive to convert to organic or expand their range of products,” the project manager elaborates. Tollwood helps with supplier negotiations and has also supported food traders in adapting their own dishes and ingredients, which means regional,

seasonal, less meat and throwing away as little as possible.

The festival has its own gastro-expert on the team. “He knows the market, he knows how to budget, what works and what doesn’t,” Kämper explains. In other areas, e. g., on the “Market of Ideas”, the festival hires external experts to check that their sustainability criteria are met.

Since 2003, all of the festival catering has been organically certified according to the directives of the EU-organic production-regulation while remaining comparable in price to conventional major events in Munich, Kämper summarises.

According to a study of the consulting agency “Ernährungsökologie”, Tollwood’s approach to food saves 20% or 116 tonnes of CO<sub>2</sub> emissions each year. “Challenging and encouraging, setting clear goals and continuously pursuing and reviewing the sustainability criteria with staying power – that’s crucial,” Kämper emphasises.

## THE SOLUTION



## “MARKET OF IDEAS” KEEPS TOLLWOOD OCCUPIED

The “Market of Ideas” with its countless products will present sufficient challenges for the coming years, Kämper is sure. For many non-food raw materials and products there is no sustainability certification available yet, so this is where pioneering work is needed.

The second major concern for the festival is to help make the world a better place, even outside the festival grounds. For example: the ‘Bio for Children’ project that focuses on healthy food in childcare facilities, which was previously restricted to Munich, is now being rolled out nationwide.



Challenging and encouraging, setting clear goals and continuously pursuing and reviewing the sustainability criteria with staying power – that’s crucial.



## CITY, COUNTRY

Aarhus, Denmark

## DAILY CAPACITY

35,000

## SITE

Near-natural city park/event area  
Eskelunden (since 2022)

## CAMPING

No

## NUMBER OF DAYS

3

## ESTABLISHED IN

2010

## GENRE

Indie

## CHALLENGE & SOLUTION

Reducing food carbon footprint by  
offering plant-based meals only

Photo by Georgia Nociloi Hildebrand

“Lead the way” has been NorthSide’s motto since its conception. Even a decade ago, back when sustainability wasn’t on everyone’s radar, its creators wanted to make it into one of the greenest cultural events out there.

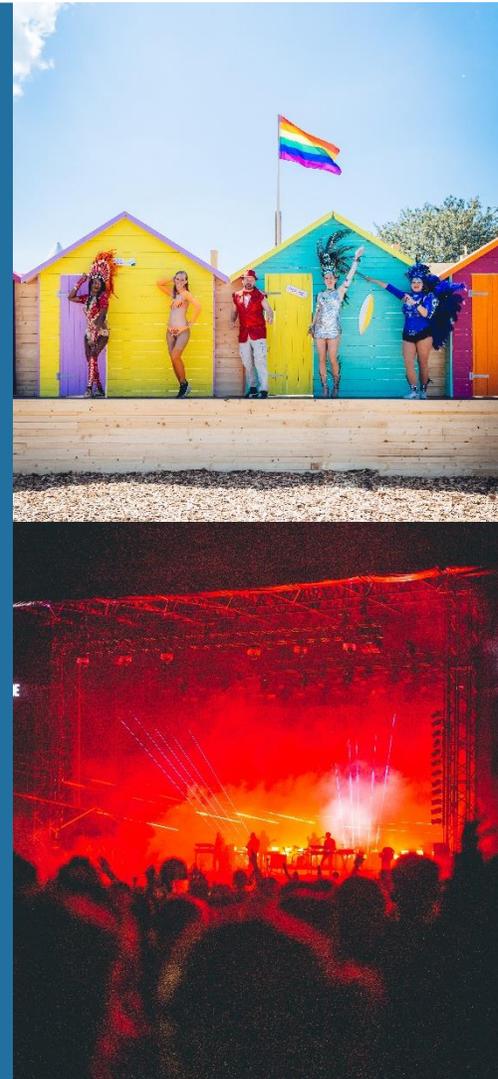
This year (2022) NorthSide has moved location from Adalen to Eskelunden. The municipality only recently modernised the infrastructure of the event area in the large, near-natural park to secure water supply, wastewater management and a power supply based on renewable energies, explains Martin Thim. Thim is Partner and Sustainability Manager at DTD Group, one of the biggest festival organizers in Denmark who is also responsible for NorthSide. He adds: “In order to reach our goals, we need the right partners, and that’s the reason why I

manage both Sustainability and Partnerships together. We simply can’t do this alone.”

That’s why for example, NorthSide collaborated with the city government to upgrade the event area in Eskelunden. “We, as cultural figures and facilitators, have an obligation to step up and do our very best to help move society into the right direction. We believe that we can actually make a difference. It’s never easy doing these projects, but it’s very rewarding when you realise that you have gotten rid of the diesel generators or that you are now taking part in changing the entire food industry,” Thim states on the festival’s motivation. “I would just love to one day be at a festival and feel safe knowing that the environmental footprint is low. To be able to enjoy the music without having to deal with the bad conscience.”



## URBAN FESTIVAL WITH SUSTAINABILITY AT ITS HEART



Photos by Marcus Glavind



## THE CHALLENGE

# REDUCING THE AMOUNT OF MEAT SERVED AT THE FESTIVAL

NorthSide has been experimenting with their food and drinks menu for years. When changing to Tuborg as official beverage supplier, NorthSide (among other festivals) demanded that the company created an organic beer – which they did in 2015 with the introduction of Tuborg Raw. Fostering this long-standing partnership now also pays off indirectly: because of investments that Tuborg's parent company Carlsberg has recently made in Danish breweries, producing NorthSide's beer will from now on create 50% fewer CO<sub>2</sub> emissions, Thim told us.

In 2017, NorthSide became almost entirely organic in all their food and drinks. To find out more about their environmental footprint, the festival had the London-based organization A Greener Festival analyse its CO<sub>2</sub> output. This analysis found out that meat was responsible for about 60% of the carbon emissions of the festival's foods, so the natural goal became to make food for audience, artists and crew 100% plant-based.



**In order to reach our goals, we need the right partners [...]. We simply can't do this alone.**



Photo by Regine Vilhelmsborg

## INTRODUCING A PLANT-BASED MENU

To achieve this in 2022, the festival has collaborated with the Danish Plant-based Knowledge Centre. It defines a plant-based meal as “a meal that is based on plants and can be supplemented with a small amount of animal products”. For NorthSide, this means: no meat, no fish and a maximum of 15% of cheese, egg and mayonnaise per portion.

“Food is something that all our guests are in contact with several times a day. It’s a really nice way of communicating with people without actually communicating. It’s also something we can directly influence. We can set demands for restaurants and kitchens,” Thim explains.

When they first decided on serving more organic food at the festival, not many caterers were prepared. To get them on board, the festival used the “carrot and stick” approach: caterers must pay a fee for their festival food stalls, and the higher their percentage of organic food, the lower the fee. “That worked really well,” Thim says. With their demands, the festival changed the Aarhus food scene over the years, while creating new business opportunities for caterers. “We have seen some of those businesses really grow because they

worked with us, and now they’re producing organic stuff all over the country.” Thim admits, however, it can be challenging for the restaurants to procure enough organic raw materials.

When NorthSide announced to go plant-based in 2021, they had “never gotten as much media attention in the history of the festival,” Thim remembers. “Every journalist in this country is going to be at our festival this year just to report that we’ve made a huge mistake with this initiative. But we’re going to prove them wrong, obviously.” Lots of people were angry about the change, he says, but analysis has shown that the critics mostly belong to the age group 60+, who sit far outside the festival’s demographic target group of 20- to 45-year-olds. “We’re not too concerned about that. We believe that our audience has the ability to actually make a change.”

For festivals struggling with changing their menu, Thim suggests starting with an 80-20 ratio of plant-based and animal products and getting a CO<sub>2</sub> analysis also helps. “When you have the data, it’s easier seeing where you can make the biggest impact,” he recommends.

## A PLASTIC-FREE FESTIVAL

NorthSide has plenty of ideas for new sustainable projects: 2022 will see a new area called NorthSide Forum with knowledge-based content on sustainability; the festival started building its own bars and will store them in a large, rented storage facility for reuse next year; they plan to set up a cooperation with local civic

waste collection points to use their materials that would otherwise go to waste incineration plants instead to be used across construction projects on the festival site; and Thim has a vision of a plastic-free festival eventually.



**We, as cultural figures and facilitators, have an obligation to step up and do our very best to help move society into the right direction.**

# 2.4 WATER

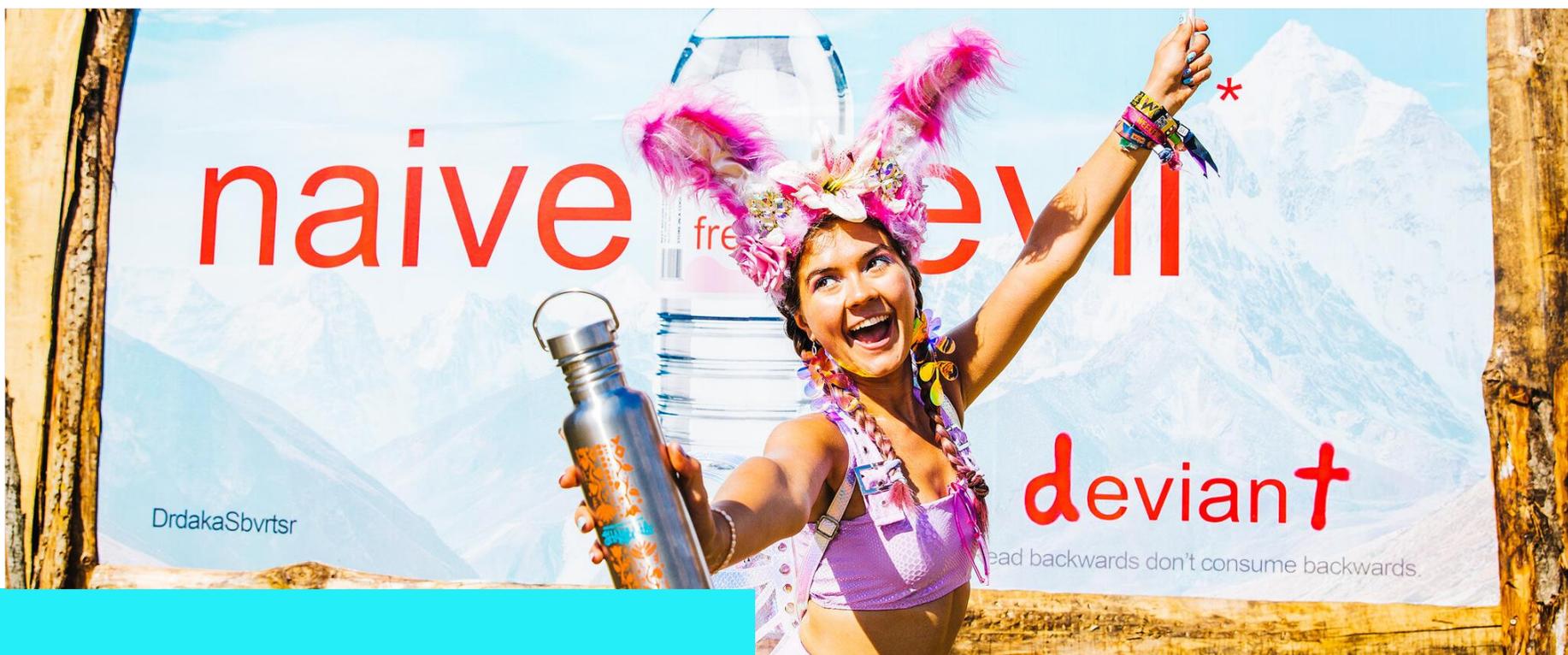


Photo by George Harrison



Photo by Cagdas Alagoz

**CITY, COUNTRY**

Idanha-a-Nova, Portugal

**DAILY CAPACITY**

40,000

**SITE**

Rural area close to Idanha-a-Nova Lake

**CAMPING**

Yes

**NUMBER OF DAYS**

8

**ESTABLISHED IN**

1997

**GENRE**

21 stages ranging from electronic and world music to yoga, lectures and workshops

**CHALLENGE & SOLUTION**

Reducing water consumption by treating water on-site



Boom serves as a perfect example for a festival that pursues a holistic sustainability approach and that keeps giving back to the local community. The festival has bought the land it takes place on; a 180-hectare homestead called Boomland and year round, the festival engages in the preservation and natural regeneration of the land. Boom is an independent, non-sponsored and truly international festival: visitors come from 177 countries in the 2022 edition; tickets are sold online and via a global network of 63 ambassadors in 60 countries.

Artur Mendes is one of four co-managers of Boom. “Sustainability is an ongoing lifetime endeavour,” he says. Their sustainability efforts are not limited to the festival and the other events taking place

at Boomland, but include using the outputs of the festival (e. g., financial resources, water, and compost) to preserve and regenerate the land. “We look at sustainability influenced by permaculture, regenerative design and its interaction with the land, while applying human-centred solutions,” Mendes explains.

This means the festival has developed a sustainability paradigm with 12 variables (e. g., water, soil, waste as a resource, and energy) that is the foundation of every Boomland project. “All the variables are interdependent and interact simultaneously. The end result is countless projects that take place on the land, in every edition of the festival and the other events we do at Boomland.”

Photo by Pierre Ekman

## A PSYCHEDELIC GLOBAL GATHERING OF MUSIC, ARTS AND CULTURE WITH HANDS-ON SUSTAINABILITY





## DROUGHT HAS BECOME NORMAL IN PORTUGAL

Many of these “countless projects” focus on Boom’s efforts towards water. While water shortage might not be a problem in Northern Europe (yet), climate change is already affecting Portugal: at the time of writing this piece and even as early as April 2022, the country’s entire landmass was in some state of drought, according to the [Portuguese Institute for Sea and Atmosphere](#). Scientific evidence predicts less rain and more intense heat waves for the country, Mendes knows. “There is an imperative need to change the paradigm of water management. Our

approach has been to maximise the water available as much as possible and reintroduce it on the hydrologic system in place as much as possible,” he explains.

A further challenge for both festival and local authorities is that the water treatment facilities in the region of Idanha-a-Nova are calculated for a population of about 10,000 people, Mendes reports – four times as many people visit Boom each edition.



**There is an imperative need to change the paradigm of water management.**

# REDUCING WATER CONSUMPTION

To support the local area, Boom has built not one, but two biological water treatment plants. The first one, which went live in 2010, is still used on a daily basis at Boomland for smaller human occupation.

Mendes says that “in 2020 we started a brand-new one that can treat up to 7 million litres of water and reintroduce all that for irrigation. Treatment of water and its reintroduction for irrigation after treatment: this is a circular approach to water and a zero-waste measure.”

All water used at Boom comes from the public grid. To keep grey water from polluting the lake, the festival has built a site-specific 40-kilometre network of underground pipelines that leads to their water treatment stations. After treatment, the water can be used to water plants on Boomland. “It is important to note that grey waters of Boom are exclusively from showers and restaurants. There is no water from toilets – they are waterless,” Mendes emphasises.

According to the co-manager, the new plant cost 250,000 Euros. By comparison: every edition of Boom costs between 500,000 and 750,000 Euros. “Some festivals prefer to invest in line-ups, which is understandable. Our concept is about human transformation and land regeneration; therefore, sustainability is a priority.” Being an independent festival, costs for the sustainability programme at Boom are covered by the revenue of ticket sales,

Mendes explains. This is why guest tickets (in contrast to regular audience tickets) come with an impact fee that goes directly to Boom’s reforestation programme.

To reduce water consumption, Boom Festival has put several measures in place: in showers and at water points, water pressure has been reduced and showers are closed at certain times during the day and night. All plant species planted in the gardens are drought-resistant and mostly native. Compost toilets were introduced in 2006 as a pioneering measure for festivals of this scale. The compost that is produced by these toilets is used to fertilise Boomland, mostly its forests. “The university of Castelo Branco city analysed our compost and gave quality A++ – that can be used for bio-agriculture purposes,” Mendes explains.

Furthermore, the procurement department has clear instructions on purchasing goods (e. g., fabrics) that use less water in production. Similarly, food providers at the staff canteen and restaurants are instructed to use products with a smaller water footprint. The food on the entire festival is 85% plant-based. If used, meat can only be locally sourced and must come with a certification of animal well-being. “We don’t take a prohibitionist approach on food. Our focus is on delivering information so the audience can make informed decisions,” Mendes explains.

## THE SOLUTION



## EVERY DROP COUNTS

Many of the measures Mendes recommends not only for other festivals, but also for society as a whole, e. g., choosing food and fabric based on their water footprints, planting drought-resistant plants in public spaces, and reducing water pressure in showers.

Considering Portugal's drought situation, it feels almost natural that the festival's motto is: "every drop counts." "Working with water is a humbling experience while at the same time it is indeed working with the core of life: there is no species on Earth that can live without water, so we must be extra careful on working with it," Mendes

says. Yet, he notes, "most people do not value water, because they take it for granted. It is important to remember that all the time."

His advice? "Look at the water cycle and apply it on your festival or land as much as possible. Water changes its state all the time and adapts. We all, as promoters, should regard it as it is, not send it away or flush it out. It is important for all of us to understand that water is a limited and expensive resource."



## WHAT'S NEXT?

Boom plans to develop its long-term, independent sustainability program even further. "In Portugal climate change is already a fact, the water droughts are common. We must reframe all approaches, starting with the politicians and the public policies that still haven't woken up to the challenges in this field," Mendes emphasises.

Photo by Annika Wallis



## CITY, COUNTRY

Steenokkerzeel, Belgium

## DAILY CAPACITY

12,000

## SITE

Castle Ribaucourt Park near Brussels

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

2015

## GENRE

Electronic

## CHALLENGE & SOLUTION

Keeping the on-site ponds from being polluted by treating grey and black water

When the visitors of Paradise City set foot on the festival site, they tread where people are normally not allowed to go. The 90-hectare park, filled with meadows, forests and ponds, belongs to the privately owned Castle Ribaucourt. As such, the nature and bird reserve is usually closed to the public. The castle goes all the way back to the 12<sup>th</sup> century when it was a mere fortified wooden tower. Today, the 200+ room building is considered to be one of the most beautiful castles in the area.

The castle domain is located on the northern border of the larger Brussels region, close to the city's airport. While the festival site is capped at 12,000 visitors, the number of unique visitors of the 3-day festival is closer to 22,000; and Paradise

City keeps growing. In 2022, the campsite capacity increased from 2500 to 3750 people.

A Greener Festival (AGF) – an international NGO focused on event sustainability – has audited Paradise City regarding its environmental efforts for the past few years. The festival has received AGF's four-star rating (their highest possible rating) two years in a row now, making it the most sustainable festival in Belgium and one of the greenest festivals worldwide. "Paradise City have taken huge strides and shown an outstanding drive for a greener festival. The team have shown a clear determination to continue to break ground going forwards, maintaining this in the face of a pandemic," AGF's appraisal read.

## CELEBRATING ELECTRONIC MUSIC IN A NATURE RESERVE WITH A MEDIEVAL CASTLE



## THE CHALLENGE



## KEEPING THE PONDS CLEAN

According to the survey conducted by the festival each year, sustainability and the location are among the main reasons why visitors choose Paradise City, Sustainability Manager, Esther Koshari, tells us. AGF assesses festivals in 12 categories, and Koshari is happy to announce that Paradise City is active in all of them. “Sustainability is in our DNA, so in every step we take, we will always look for the most sustainable, affordable way to do something,” she says.

Water is one of the assessed categories and an important element of the festival site. The ponds serve as a habitat for the local flora and fauna; some form a moat around the castle, creating a little island called ‘Food Island,’ making them an important structural element as well. This island can be accessed via floating bridges. According to Koshari, it is the festival’s responsibility to make sure the bodies of water on the site do not get polluted.

“Festivals generate a lot of wastewater from showers and toilets. So, there is a lot of water that needs to be collected and purified,” she adds. However, the local treatment plants cannot handle the sudden influx of wastewater that 22,000 visitors produce in three days, so the festival has to come up with other solutions.

“

**Festivals generate a lot of wastewater from showers and toilets. So, there is a lot of water that needs to be collected and purified.**

# TREATING GREY WATER ON SITE AND BLACK WATER OFF SITE

A possible solution would be to collect the wastewater in containers and let them sit on the festival site, Koshari says. Every day, a small amount of water would flow into the sewage system and end up at the local treatment plant. The disadvantage of this method is that it takes months, which makes it expensive as well. So, Paradise City came up with a different solution. The festival collects black water (wastewater from toilets), in containers and transports them to a Belgian company called Aquafin, which specialises in treating water for reuse. According to the [company](#), the water doesn't have drinking water quality after the treatment but is clean enough to be released back into nature.

For the less polluted grey water (wastewater from showers), Paradise City partners with [Hello Water](#). The Belgian company offers mobile water treatment plants that clean grey water with the help of plants. The mobile unit is placed at the campsite, filters the water and releases it back into the ponds. Again, the water doesn't have drinking water quality, but is clean enough for the environment.

Another factor polluting bodies of water is trash – cups and other things that visitors throw into the ponds or that end up in them

by accident. This became particularly important when Paradise City started organising events on the water during the pandemic, called Paradise Down by the Lake. “It was like Paradise City but on boats. You could be on a boat with your little bubble of eight people, so it was Covid-proof,” Koshari explains. Since then, the festival has partnered with the international NGO [River Cleanup](#) that helped them free the ponds from trash. During the festival, visitors can donate the deposit of their reusable cups to the NGO by throwing the cups into big collection boxes on the festival site.

Paradise City used the forced pandemic hiatus of 2020 to invest in preserving the small lake around the castle, Koshari tells us. The shore had slowly been sinking into the pond, making it shallower each year, so they reinstalled and reinforced the pondside and protected it with plants. The mud extracted from the pond has been reused as fertiliser for the ground of the park and in the fields.

In 2021, the festival invested in improvements for their floating bridges. Since then, the bridges don't move the mud on the pond floor as much, resulting in clearer water.

## THE SOLUTION



## REDUCING WATER USE WITH A SHARED TOILET ZONE

In addition to water treatment, the festival tries to reduce water use. In 2022, there were still a few water toilets in the comfort zone of the camping ground, but all toilets on the actual festival site were vacuum toilets, which only need a fraction of the water for flushing. “We have a lot more vacuum toilets this year because we have a shared toilet zone, which was used by camping but also by the festival. When the festival was open, it closed for the camping, and when the festival was closed, it opened for the camping,” Koshari explains.

Dry toilets would be a natural next step. “They are quite clean and very nice to use,” but they are also still quite rare and expensive in Belgium.

Filtered tap water was offered for free throughout the festival in 2022, making plastic bottles redundant.

Water clocks help the festival team to find out exactly how much water was used during the event. Unfortunately, at the time of writing, the numbers for 2022 were not in yet. “I think it’s super important to measure everything you do. It’s not rocket science, it just takes a lot of time and effort to collect everything. But when you have all the data in one place you can see where you can improve,” Koshari says.



## WHAT'S NEXT?

Paradise City will try to introduce dry toilets in the next edition, in a smaller toilet zone with just a handful to test them on the audience. They are also talking to a company that can treat black water from vacuum toilets on site for reuse in toilets, which would further reduce the water use and eliminate the need to transport the collected black water to a treatment company. Ultimately, the festival would like to find ways to treat water so it becomes drinkable again.

Besides water, the festival has set up a green mobility plan that includes night trains to reduce travel emissions. The already meat-free menu will be discussed again to see if fish could be removed or more vegan options introduced.

# 2.5

## TRAVEL & TRANSPORT



Photo by Johannes Krueger



## CITY, COUNTRY

Hanover region, Germany

## DAILY CAPACITY

3000

## SITE

Historic tram museum in Wehmingen, Sehnde

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

2017

## GENRE

Techno, House, Indie Pop/Rock, Soul, Hip Hop, Reggae, Alternative

## CHALLENGE & SOLUTION

Reducing travel emissions by offering free shuttles and bikes

Photo by Doppelgaenger-Medien

SNNTG is a non-profit cultural association founded in 2017 with the aim of promoting art and culture in the Hanover region. “SNNTG aims to be a platform for art, music and other cultural projects that helps connect various cultural disciplines, practices and people from different fields,” explains co-founder Philip Hellberg. The association wants to initiate participation in social interactions and activities as well as socio-political participation but remains politically independent.

One of the ways SNNTG achieves this is by offering a low-threshold cultural programme. The focus lies on collaborative, interdisciplinary work. Currently, the SNNTG association consists of nearly 80

volunteer members, among them students, trainees, freelancers and professionals, many of whom are involved in other collectives and (non-profit) associations as well.

The association is based in Hanover, and the SNNTG Festival takes place in the neighbouring town of Sehnde. The Wehmingen district is home to a historic tram museum, which temporarily becomes the festival’s site. “The combination of a festival and historic tram museum is certainly unique,” Hellberg says. During the festival, guests can visit and ride historic trams and thus experience a part of the museum up close. The name of the festival comes from the German word for Sunday (“Sonntag”).



[CLICK TO VIEW](#)

## BRINGING SUNDAY-VIBES TO A HISTORIC TRAM MUSEUM



## THE CHALLENGE

# REDUCING CAR TRAVEL

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The festival doesn't have the financial means to pay for a CO<sub>2</sub> analysis, Hellberg tells us. However, according to a CO<sub>2</sub> analysis of the OpenAir St. Gallen, with which SNNTG is in contact, the arrival and departure of guests by car equates to a major portion of a festival's total emissions. Consequently, the aim for SNNTG Festival is to avoid its audience members, crew and artists travelling by car.

Many of SNNTG's visitors come from the Hanover region, so travelling with public transport is possible, says Hellberg. Yet, the question of how to transport their luggage must be solved. On their mission to cut out every car ride possible, the festival is also looking at the production transports, team travel and artist travel.

“ When it comes to public transport, projects often fail because of the high prices.

# OFFERING FREE SHUTTLES AND BIKES FOR RENT

SNNTG has several approaches to make the different areas of travel and transport more sustainable.

For their audience, they provide information on how to get to the festival by bus, train and bike and encourage these forms of travel. “It takes about an hour to cycle from Hanover Central Station to the festival. There is a closer tram station in Kronsberg that is a 15-minute bike ride away,” Hellberg describes. For guests arriving on bike, SNNTG provides cycling routes, offers a luggage shuttle and a joint bicycle arrival as a separate event. There is a free shuttle bus going to the festival site from the train station in Kronsberg for those without a bike. The festival does still offer car parking, but they have increased the prices to discourage arriving by car.

The team is always working on creating incentives for cycling. For 2022, they are turning the bicycle journey into an event in its own right, with stops for food and drink, possibly with music on the way. On site, the festival used to offer bikes for rent to the visitors thanks to a cooperation with the bicycle

renting company Swapfiets. They could also be used to explore the region. Hellberg regrets that the partnership couldn't be renewed for the 2022 edition as the COVID pandemic had simply made long-term planning impossible for the volunteer crew.

To reduce production travel emissions, the team ensures that there is as little car driving as possible by using bikes instead. During the set-up, execution and dismantling periods the crew borrows and uses cargo bikes.

SNNTG has a no-fly policy for artists and encourages them to come by train. To make this easier, they offer a shuttle service that brings artists from the train station to the festival site. As often as possible, the team uses electric cars for this. Up until the last edition, partner company MOIA ran this service with e-shuttles – but similarly to Swapfiets, the cooperation fell victim to the pandemic. For 2023, Hellberg and his team are keen to find new partners to renew their bike renting and shuttle services.

*Photo by Doppelgaenger-Medien*



## OFFERING BETTER SERVICES THROUGH PARTNERSHIPS

Cooperating with MOIA and Swapfiets came without financial costs for the festival and enabled them to offer more sustainable services to their visitors. The shuttle service for the festival goes costs the festival a high four-digit sum though Hellberg says it “is absolutely worth it!”

All these ideas were developed by the organisers, who then approached suitable partners to make it happen. To become more creative and find new ideas, they also got in touch with other festivals.

To implement travel and transport measures successfully, it is crucial

to collaborate with suitable and committed partners, Hellberg says. However, some projects are still not (yet) viable for the festival because it lacks the required funding – for example to integrate free (regional) train tickets into the festival ticket. “When it comes to public transport, projects often fail because of the high prices,” Hellberg knows.

Another lesson learnt: “It’s important to make sustainable travel as convenient as possible, but if it’s necessary, be brave and put sustainability before convenience.”



## WHAT’S NEXT?

Within the next few years, SNNTG wants to achieve zero visitors coming by car. Additionally, the team wants to determine the festival’s emissions of CO<sub>2</sub> equivalents and write or commission a comprehensive sustainability concept. To do that, SNNTG would like to get external advice as sustainability can be a very complex field to navigate through, Hellberg knows.



# OPENAIR ST. GALLEN



Photo by Michael Dornbierer

## CITY, COUNTRY

St. Gallen, Switzerland

## DAILY CAPACITY

27,500

## SITE

Nature reserve Sittertobel

## CAMPING

Yes

## NUMBER OF DAYS

4

## ESTABLISHED IN

1977

## GENRE

Rock, Pop, Indie, Hip Hop

## CHALLENGE & SOLUTION

Encouraging eco-friendly travel by subsidizing train tickets





## INTERNATIONAL ARTISTS MEET SWISS NATURE

Photos by Julius Hatt (top) and Daniel Gassner

OpenAir St. Gallen is one of the oldest and biggest open-air music festivals in Switzerland. The first edition took place on the Aetschberg in Abtwil in 1977. Four years later, it moved to its current location, the nature reserve Sittertobel. It is located only about 15 minutes from the local train station and is named after the river Sitter, which forms a natural border of the festival site.

“What is unique about OpenAir St. Gallen is that the campsite is integrated into the festival site. When you enter the

festival site, you set up camp for 4 whole days and nights which creates an extraordinary ambiance,” explains Désirée Messmer, the staff and volunteer’s manager. Messmer is also responsible for sustainability, the organising committee, and public inquiries at OpenAir St. Gallen.



## MOTIVATING VISITORS TO TRAVEL ECO-FRIENDLY

“Acting sustainably has always been a major concern here at OpenAir St. Gallen, not least because the festival takes place in a nature reserve,” Messmer says. The first sustainability projects were implemented in 1994 and new ones have been added every year. These include the challenges around audience travel: CO<sub>2</sub> emissions caused by

visitors’ travel arrangements are one of the biggest sources of greenhouse gases for many festivals.

Therefore, OpenAir St. Gallen encourages visitors to use eco-friendly means of travel instead of cars and planes.

“ Acting sustainably has always been a major concern here at OpenAir St. Gallen, not least because the festival takes place in a nature reserve.



Photo by Manuel Lopez

# PUBLIC TRANSPORT & REGIONAL PARTNERS

OpenAir St. Gallen recognised that one of the reasons festival goers prefer to arrive by car rather than public transport is because the latter is oftentimes more expensive. As a result, the festival subsidises traveling by public transport to make it more affordable for its audience.

The city buses as well as shuttle buses between parking/main station and festival site have been included in the festival ticket since the very beginning. Up until 2013, the festival offered a 20% discount on train tickets bought together with the festival ticket. When festival and train tickets were bought at the same time, visitors received a further 5% discount on the festival ticket.

In 2014, the discount on festival tickets was abolished, but since then, festival goers have received a 50% discount on train tickets to the festival. To make this possible, OpenAir St. Gallen works with the national railway company, Swiss Federal Railways (SFR). Messmer explains that the festival goers pay 50% of their train tickets, the festival 30% and SFR 20%. Negotiation attempts of a 100% discount have so far led nowhere,

because the festival couldn't afford the several hundred thousand francs SFR would charge for this deal.

In addition to supporting public transport, the festival tries to make travelling by car less attractive. There is only a limited number of parking spaces (3000), which are expensive, costing 60 Swiss francs (approx. 58 Euro) each for four days. Over the years, the festival has increased the number of visitors who arrive with public transport, by bike or on foot to 83% in 2019 (in 2010, the number had still been at 47%).

To keep transport distances as short as possible, OpenAir St. Gallen works with regional partners whenever possible, Messmer says. Rental cars are provided by a company from St. Gallen, audio and light services are offered by companies from the city itself and from Herisau (about 13 kilometres away), and the reusable dishes come from a company in Niederwil (approx. 18 kilometres away).

## THE SOLUTION



## BECOMING CLIMATE-NEUTRAL THROUGH OFFSETTING

In other areas, the festival has not yet introduced solutions to decrease carbon dioxide emissions. For example: artists who fly into Switzerland for the festival. “In 2019, we had a lot of acts from neighbouring countries, and as a matter of fact, the CO<sub>2</sub> emissions in travel dropped rapidly,” Messmer remembers. “If we wanted to significantly reduce CO<sub>2</sub> emissions from travel, we would have to rely on regional artists as a matter of principle. However, we always want to offer our audience an up-to-

date and appealing line-up, so sometimes we also fly in headliners from overseas.”

Instead of forgoing these artists, OpenAir St. Gallen has been offsetting its residual carbon emissions since 2019 by investing in climate protection projects. According to its own reports, this makes OpenAir St. Gallen the first major open-air festival in Switzerland to become climate-neutral.



## WHAT'S NEXT?

For the 2022 edition, OpenAir St. Gallen has installed new sanitary facilities, which according to Messmer use up to 80% less water on average. The festival will also collect leftover food from the food stalls, backstage and at selected spots in the audience area for the first time. “Our partner, Jakob Bösch AG, will use these food leftovers to produce biogas after the festival,” Messmer told us.



# FIRE IN THE MOUNTAIN



## CITY, COUNTRY

Aberystwyth (West Wales), UK

## DAILY CAPACITY

2000

## SITE

A farm outside Aberystwyth

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

2011

## GENRE

Folk, Roots Music

## CHALLENGE & SOLUTION

Reducing travel CO<sub>2</sub> emissions with the Coach Ambassador Scheme



## A SMALL, FAMILY-FRIENDLY FESTIVAL IN THE WELSH MOUNTAINS

Fire in the Mountain comes with a friendly reminder on its website:

“This is not a pop-up tent and can of Tuborg festival.”

The festival takes place on an old 40-acre farm in remote mid-Wales, in the beautiful foothills of the Cambrian Mountains. A good-quality tent, a warm sleeping bag and water-proof, sturdy boots are recommended to visitors to be able to handle the Welsh countryside. Yet, the festival is family-friendly and attracts people of all ages, says Joe Buirski, Managing Director and

Music Programmer for Fire in the Mountain. “Because our event is small and relaxed, we attract a lot of the 50-70 age group as well.”

Fire in the Mountain offers a few day-tickets for the Sunday, but most visitors stay in one of the two festival camp sites for the whole weekend.

The festival's strong points are, according to Buirski, “the small size, the beautiful nature, interesting music, non-corporate volunteer-run structure, and being sustainable”.

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## REDUCING CAR TRAVEL DESPITE THE REMOTE FESTIVAL SITE

Traveling to and back from a festival is the greatest source of carbon dioxide emissions for events. According to [Julie's Bicycle](#), "audience travel results in two-thirds of the festival sector's emissions and a quarter of all music audience travel emissions". While festivals in urban settings can be reached more easily with all kinds of public transport, the problem is particularly prominent at greenfield festivals.

Fire in the Mountain is a greenfield festival, situated relatively remotely in the Welsh foothills. The festival's team is well-aware of this problem. "There is a climate

emergency and we all must act. We know that personal vehicle transport is one of the greatest causes of emissions for music events. It's the biggest area of emissions we cannot control, and we wanted to attempt to reduce them," Buirski explains. Another motivating factor is the high expenses for creating a space for use as and facilitating a carpark: "It costs us over £7000 to facilitate cars and vans; stewards and parking marshals, extra security, renting a field, and all that expensive, heavy and horrid to handle temporary road matting. Plus, we are running out of parking spaces!"

“ “

[Personal vehicle transport] is the biggest area of emissions we cannot control, and we wanted to attempt to reduce them.

# CAR-POOLING WITH THE COACH AMBASSADOR SCHEME

To fight travel emissions, Fire in the Mountain has launched a five-year plan, the Sustainable Travel Initiative, to reduce car and van use to only the most essential vehicles and to set off their carbon emissions eventually. The plan includes to increase the parking charge for crew and attendees to £20 per vehicle. “We will see how this pilot year goes, but we are likely to increase parking year on year to help everyone go green. Driving a car should be a luxury, not a necessity,” the Managing Director finds.

The plan also includes free parking and charging for electric vehicles, free minibuses for the crew, promoting car sharing, cycling and coach travel, shuttle buses from the Aberystwyth Train Station for half the price (£1.50), a carbon off-set option for drivers via the festival’s ticket page, and the Coach Ambassador Scheme.

The idea of the scheme is to get visitors to organise car-pooling. “We offer to send a subsidised MPV [Multi-Purpose Vehicle] to any location in the country if there is a proven demand, anything from a 16-52 seat vehicle,”

Buirski explains. “It is tricky for a medium-sized event to guess where to put on coaches. So, we sent an email to our festival audience, encouraging people to become a coach organiser for their local area. We would look at the postcodes of where people bought tickets and email them to see if they would club together with other people who live nearby to share a coach we would organise. We wanted to then invite one person in the area to coordinate the coach and be in touch with the other passengers, in return for free travel.”

The subsidy comes from the fees for car parking: any money that is left after having paid for related costs would flow either into reducing the train station shuttle fee or into the Coach Ambassador Scheme. “A local company is able to supply different size vehicles depending on demand,” Buirski continues. “These coaches won’t be free but will be below cost price.” In order to be economically viable, more than ten people need to share an MPV.

## THE SOLUTION



## REDUCING VEHICLE TRANSPORT IN 2023

As is the case with many other festivals in 2022, the goal for Fire in the Mountain is to happen in the first place after the long pandemic break. "It is a challenge organising an event after 2 years, and sadly, we don't have capacity to give the Coach Ambassador Scheme our full attention this year. 2023, when we should be back to normal, we will really focus on reducing vehicle transport," Buirski says.

The festival will still continue with its Washing Up plan, which bans all

single-use items on the entire site. "We invested in thousands of metal plates, bowls and cutlery and bought an industrial dishwasher. We ask all traders to use our serve-ware, and have a team to run the washing-up station. This reduces the amount going to landfill massively," the Managing Director explains.



“ “ Because our event is small and relaxed, we attract a lot of the 50-70 age group as well.

# 2.6 STRATEGY



Photo by Romain Basseine



Photo by Romain Bassenne

**CITY, COUNTRY**

Paris, France

**DAILY CAPACITY**

40,000

**SITE**

Le Bois de Vincennes, the city's second biggest park

**CAMPING**

No

**NUMBER OF DAYS**

3

**ESTABLISHED IN**

2011

**GENRE**

Music, Art, Food, Talks, Start-up and NGO programme

**CHALLENGE & SOLUTION**

Pioneering eco-friendly production techniques by including the entire production team



## FRENCH LABORATORY FOR SUSTAINABLE EVENT SOLUTIONS

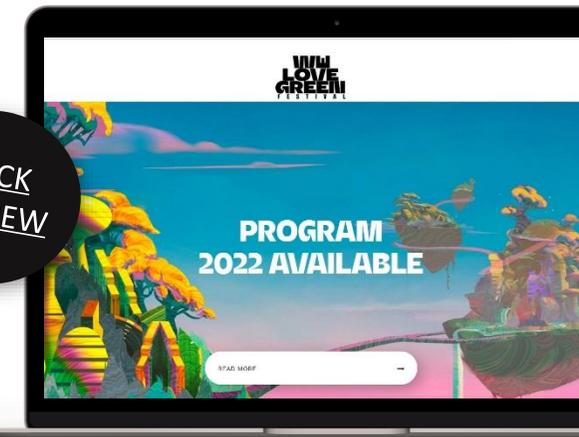
WE LOVE GREEN is a self-proclaimed laboratory for sustainable innovation in the live events sector. Its aim is to test green solutions and prove that it is possible to combine our current lifestyle with a sustainable development. “Our pioneering eco-friendly production techniques are an essential element of the festival, and they adhere to an eight-point sustainability charter which focuses on: energy, food services, water, waste management, transportation, raising awareness, carbon offsetting and circular economy,” explains Marie Sabot, co-founder of WE LOVE GREEN.

The festival programme includes music, art, food, talks as well as a start-up and NGO area. “We bring together 5 musical stages, 60 live artists and DJs, 60 speakers, 51 restaurants, eco-designed art and

creative production, 30 start-ups and NGOs, a kids club as well as films and documentary extracts screenings on all stages between the shows,” Sabot elaborates.

The festival remains independent to this day and Sabot’s motivation to become active in sustainability is very personal, she tells us, “I come from the South of France, where people worked in agriculture and wine. As a child, I saw the change from market gardening and orchards to very large farms, the intensification of treatment on the vines and the arrival of harvesting machines.” She describes this as an “alarming development”, the beginning of “disconnection between human and nature and the loss of a large culture of wine and territories”.

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TO VIEW



Photos by Romaine Bassenne (top) and Adu Parc



## THE CHALLENGE

# PIONEERING ECO-FRIENDLY PRODUCTION TECHNIQUES

It takes quite a while to scroll through all of WE LOVE GREEN's ecological achievements. In 2022, the festival introduces an energy mix composed of solar panels, some green hydrogen generators and fuel cells, and various biofuel generators. 95% of the light sources are LEDs. The festival has created an online tool that helps both festivalgoers and artists to calculate their carbon footprint caused by travelling to the festival and to offset the emissions. In 2019, they planted 80,000 trees with the search engine Ecosia.

WE LOVE GREEN separates waste into 11 categories (e. g., bio, recyclable, cooking oils), which are all processed in a dedicated chain to reach full circularity. In 2019, 81% of the waste was recycled. They have created a material exchange hub to recycle used set designs. In the last edition, 15,000 cigarette butts were collected and recycled. A specialized company from France can clean the highly toxic cellulose acetate filters and turn them into items like ashtrays, pencil pots and even furniture.

Food at WE LOVE GREEN is locally-sourced, seasonal and organic. 100% of the food traders offer a vegetarian or vegan dish, 50% of them are fully vegetarian or vegan. Plates and napkins are compostable and turned into fertilisers used for local agriculture; the cutlery

is recycled. In 2022, festival staff and artists catering use hard tableware and have a dishwasher system, managed by a service centre which supports people with a disability into work.

In 2019, 2600 unsold meals were distributed to charities, avoiding destroying 3.1 tonnes of food. Through an eco-cup deposit scheme and by using reusable bottles they saved more than 280,000 plastic bottles in 2019. There are 100 free water taps to fill the reusable jars. The festival has a zero single-use plastic policy, valid also for crew and artists. Using only compost toilets saved 2.1 million litres of water and the toilet waste created 22,000 litres of compost. Urine was even turned into agricultural fertiliser, then distributed to local farmers.

In addition to this, WE LOVE GREEN analyses the CO<sub>2</sub> output of each edition of the show; this includes asking the partners for detailed information. "Calculating carbon emissions remains the best way to improve our practices," Sabot says. The goal is, firstly, to reduce the carbon output and, secondly, to offset these emissions. Additionally, an impact study on local biodiversity will be conducted in 2022 to better understand how the festival affects biodiversity and how to improve this.

# CREATING CHARTERS FOR EVERYONE INVOLVED IN THE FESTIVAL

WE LOVE GREEN created their strategy on sustainability by meeting with other cultural organisations and exchanging ideas with a wide range of people from other fields, too, Sabot says. “The festival had clear goals, but could not realize everything as planned, either because of a lack of time or means. Thus, we had to establish a strategy to overcome these shortcomings,” the co-founder adds. Which measures to include to reduce the impact of the festival depends on different criteria: how sustainable the solutions are, how economically feasible they are, and how technologically or methodologically advanced they are.

To make these measures work in practice, WE LOVE GREEN tries to get everyone who is involved in the festival to become involved in sustainability as well. The festival has created a charter for each of the five different groups of participants; event production, artists, food and drink, volunteers, partners and service providers (toilets, bars and technicians).

The charters serve as guidelines for ecologically responsible behaviour. For example: food traders pledge to respect the 15 food service criteria (traceability, certification, packaging, etc.); the partners’ teams, the service providers, and the overall

1000 volunteers commit to respecting recycling and water-/energy-saving instructions. Before each edition of WE LOVE GREEN, the staff are made aware of the approach to sustainability, its implementation in production, and charters are shared at each department. “Our artists have to sign a green policy charter in their contract, where we explain all the measures on the festival,” Sabot says. “This includes the carbon offsetting of their journey and no single-use plastics backstage.”

There is no charter for the audience. “We know that our audience comes, because the essence of the festival has been eco-responsible since the beginning. I think that, even if not all our festival goers are committed, they all know that they are coming to a committed festival,” Sabot says.

“To communicate sustainability successfully, WE LOVE GREEN adopts the most education-focused approach possible without treating our audience like children,” she continues. The festival publishes the progress of their sustainable developments, linking it to proven or provable data. The communication maintains a playful but empowering tone without being guilt-inducing.

## THE SOLUTION

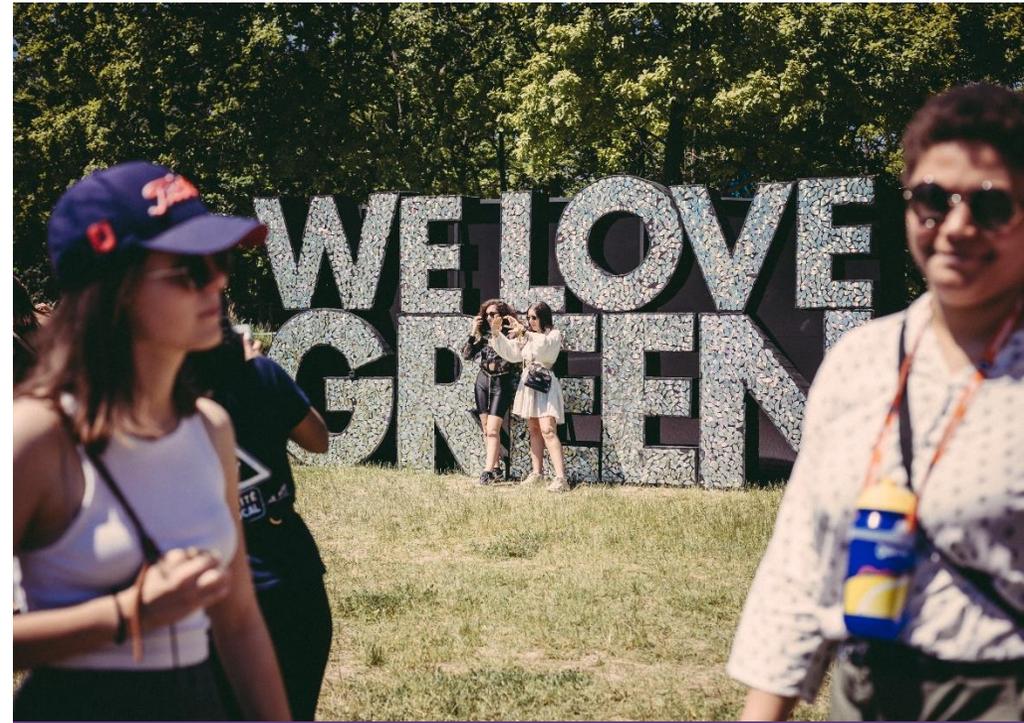


# SUSTAINABILITY CAN CREATE REVENUE

The festival director estimates that creating an ecologically responsible festival costs on average about 30% more. However, being an expert on sustainability also opens up new revenue streams.

The team gives lectures about their experiences and advises public institutions; for example, the committee organising the Olympic and Paralympic Games 2024 in Paris (COJO) contacted the festival, because they wanted to learn more about producing environmentally-friendly major events. Furthermore, the festival was a consultant for the Ministry of Ecology to produce a more sustainable COP 21 in Paris.

WE LOVE GREEN also receives public funding through a pan-European Creative Europe project which is run by the festival: Green Europe Experience (GEX) focuses on the two major topics of food and scenography. “We want to improve the festivals’ model of creation and production based on the circular economy model and its 7 Rs. The goal is to reduce their ecological impact ever more while increasing their positive social impact,” Sabot explains.



*Photo by Romain Bassenne*

## WHAT'S NEXT?

WE LOVE GREEN wants to become 100% circular by 2025. The festival is one of about 20 international festivals like Roskilde, DGTL and Shambala that are part of the Green Deal Circular Festivals initiative. These festivals have signed an agreement, created by Netherlands-based Green Events International and the Dutch government, to adopt a sustainable, circular economy. The aim is to design a blueprint for resilient and circular festivals everywhere by 2025.

The two next major challenges for WE LOVE GREEN are, according to Sabot, materials and energy; the sorting of waste, particularly food waste, that sorting service providers sometimes neglect, going further in composting and testing new energy sources and processes.



## CITY, COUNTRY

Tolmin, Slovenia

## DAILY CAPACITY

12,000

## SITE

Sotočje, where two rivers meet in a forest

## CAMPING

Yes

## NUMBER OF DAYS

5

## ESTABLISHED IN

2013

## GENRE

Metal

## CHALLENGE & SOLUTION

Engaging with a diverse audience through subtle communication





## FAMOUS METAL ARTISTS AMONGST THE PRISTINE SLOVENIAN NATURE

Innovation and hospitality have been central for MetalDays since it started in 2013 and even longer for its creators, Nika Brunet and husband Boban Milunović. Visitors regularly come from more than 70 countries to the festival site Sotočje (Slovenian for “junction”), which lies within a forest. At the site, two mountain streams, Soča and Tolminka, meet amidst untouched Slovenian nature near the town of Tolmin, which has a population of just 3500.

Despite its remote location, MetalDays is the biggest festival in Slovenia and one of the leading metal festivals in Europe, attracting world-renowned bands each year. Brunet calls MetalDays “a true pioneer among festivals”. This is because they have invented the concept of combining music events and holidays. As well as this, they have set ecology and sustainability standards that are now followed by many other festivals.

One of these standards is the garbage deposit, a fee that visitors pay with their ticket and that they can reclaim after they

have cleaned up their camp sites and returned their filled trash bags once the festival has finished. It is a measure that Brunet recommends every festival puts in place. “It gets our audience to participate in keeping the festival area clean,” the event manager says.

In addition to this, visitors are supplied with biodegradable tent pegs, which can be left in the ground. Cutlery and tableware is biodegradable, toilet paper and napkins are made of recycled and organic materials, and 50% of meat and dairy have been replaced with vegan food. The festival has also built drinking water pipelines throughout the site (eliminating the need for bottled water) as well as a new sewage and drainage system that reduces the number of plastic chemical toilets used. These are only a few measures implemented at MetalDays.





## COMMUNICATING SUSTAINABILITY TO A DIVERSE AUDIENCE

According to Brunet, two challenges stand out amongst the many that MetalDays has faced over the years: financing and communication. As the festival is independent, with no sponsors or other financial support, Brunet and Milunović pay for sustainability initiatives out of their own pocket. “My husband and I like to joke that we have invested enough for two nice family houses in Ljubljana, Slovenia,” Brunet says. Was it worth it? “That is debatable. I like to think that one of the reasons visitors love our festival so much and love to come back every year is also because of the work we do to create a more sustainable festival with a smaller environmental impact. For us personally, there was simply no other option. If the

question is more about the financial aspect, the answer for sure is: no, it did not pay off.”

The idea of creating a sustainable festival is reflective of Milunović and Brunet’s personal beliefs; both, for instance, live completely vegan. “My husband and I try to live a sustainable life 365 days a year, so we thought that our festival should be no different.” Convincing 12,000 visitors from all over the world, ranging between 20-50 years old, to accept these beliefs is definitely a challenge, but “with the right approach and education of our visitors, we have come really far,” Brunet adds.



One of the reasons visitors love our festival so much [...] is also because of the work we do to create a more sustainable festival.

## SOMETIMES SAYING LESS IS MORE

A lesson learnt by the couple is that sometimes too much explanation can backfire.

When they began introducing plant-based food, many visitors, according to Brunet, were aware that she and her husband are vegans. “So, when we had our first vegan food stand at the festival, we got comments like: ‘you are pushing your own personal beliefs and lifestyle onto us, you will not succeed, and it will only go

downhill from here.’” Instead of changing their minds about the decision to introduce plant-based food, they simply stopped explicitly advertising the vegan options. “Now our communication is more like: ‘look, here’s a delicious burger, there are plenty of great, healthy food options at the festival, so come and enjoy.’”



**Now our communication is more like: ‘look, here’s a delicious burger, there are plenty of great, healthy food options at the festival, so come and enjoy.’**

Photo (left) by Katja Borns



## RETURNING TO THE 5-YEAR PLAN

Pre-pandemic, the festival had created a 5-year plan towards an even greener and cleaner festival, called “Green MetalDays”.

The measures included:

- Replacing diesel generators with power connectors and introducing pre-pitched cardboard tents (‘Electric Funeral Project’, 2019)
- Banning single-use tents and offering biodegradable ones instead (‘BIG Tent Revival Project’, 2020)
- Introducing free parking for car-sharers (‘Green House Effect Project’, 2020)
- Creating an on-site supermarket and being package-free, (‘Toxic Garbage Island Project’, 2021)
- Replacing most chemical toilets with eco and permanent solutions (‘Drainpipe Project’, 2022)
- Going 100% plant-based with local organic products (‘Reclamation Project’, 2023).

Sadly, however, Green MetalDays came to a halt due to the pandemic. As the festival is independent, it will likely take a few years to get it back on track, Brunet says.

The festival is facing other challenges that require solutions, such as the construction of the Tolmin bypass. The looming construction of the highway road will impact the site as it will split the festival area in two. “With the rising price of production costs and bands, we will have to wait and see how things will evolve,” Brunet concluded.



“

**With the rising price of production costs and bands, we will have to wait and see how things will evolve.**



Photo by Wild Rumpus

### CITY, COUNTRY

Feanedock, Leicestershire/Derbyshire border, UK

### DAILY CAPACITY

4000

### SITE

The National Forest, a former industrial landscape turned into woodland

### CAMPING

Yes

### NUMBER OF DAYS

3

### ESTABLISHED IN

2018

### GENRE

Music, arts, film, talks, workshops, activities

### CHALLENGE & SOLUTION

Building sustainable structures from scratch by involving and motivating all stakeholders

Set within the National Forest, a visionary regeneration project in the Midlands, Timber Festival explores the economic, social, environmental and cultural benefits of trees through a programme of arts, music, talks, workshops, film and activities. The festival site, Feanedock, used to be an industrial coal mining landscape. Now, it has become a woodland site in the heart of the National Forest which was reclaimed, reforested and the landscape transformed.

The festival's organisers Wild Rumpus are a Community Interest Company working at the intersection of arts and nature, explain Aileen Ging (Production Manager and Sustainability Lead) and Sarah Bird (Festival Director). "We're passionate about taking audiences on outdoor creative adventures that encourage a nature connection and help to imagine

more sustainable futures," says Ging. The overall strategy for Timber is to offer the audience inspiring and creative opportunities to connect with nature, to inspire a passion for conservation and to provoke curiosity about the transformative impact of trees and forests on everyone's lives.

Timber Festival is passionate about collaborating with a wide range of community groups, schools, commissioning partners, researchers, conservation specialists and NGOs as well as artists.

"We are driven by the expectations of our audiences, programming partners and funding partners to offer them sustainable ways to engage with the festival," says Bird.



## A YOUNG FESTIVAL EXPLORING THE IMPACT OF TREES ON EVERYONE'S LIVES



Photos by Wild Rumpus

## DESIGNING A SUSTAINABILITY STRATEGY FROM SCRATCH

Despite being a young festival, Timber is working on a comprehensive sustainability strategy, and each area of the festival presents its own challenges.

Capacity and finance are the biggest challenges for Timber Festival. “We’re a small team, and to invest the time in researching all the options and really understanding and communicating all the impacts of our decision-making, takes a lot of staff time,” says Sustainability Lead, Ging. There is a need to make sure that everyone in the team is on board and plays their part in helping to feed into data collection, so that solely one individual doesn’t have to measure, track and analyse everything. They also have to communicate how and why they’re doing things to all the different stakeholders on site because their buy-in is essential for implementing initiatives effectively.

In addition to this, procurement can also be challenging. According to Ging, there’s a lack of sustainable infrastructure like electric buggies, generators and compost toilets that are available to hire locally in the Midlands; these are often more expensive, too. Public transport options for audience travel aren’t ideal either at the greenfield festival.

There are various other challenges for Timber Festival including convincing the team to adopt new solutions, making sure food vendors stick to the processes and policies in place, and encouraging behavioural changes, without enforcing them on the audience. “There is a challenge in maintaining the energy and drive to change whilst trying to convince others to do the same,” Bird summarises.

“There is a challenge in maintaining the energy and drive to change whilst trying to convince others to do the same.”

# EMBEDDING SUSTAINABILITY ACROSS THE ENTIRE ORGANISATION

In order to tackle these challenges, Timber Festival is trying to ensure sustainability is embedded across the whole organisation – this includes their advisory board –, rather than leaving the responsibility with just one person. “We believe in finding solutions to challenges collectively. We rely on all of our partners, contractors, audiences, volunteers and stakeholders to play their part,” Bird says.

When it comes to the financials, Bird thinks that many of their audiences wouldn’t buy tickets if the festival wasn’t delivering on sustainability, making it “a false economy not to invest”.

“Creative responses to the challenges have often received the best feedback from audiences and staff alike,” Ging adds. In 2021, they introduced the “Thread Exchange” where people could donate an item of clothing with a note about the story behind it and swap it for another piece of clothing. “The uptake was huge, and the stories people told were really heart-warming.” In the same year, Timber introduced a volunteer

Green Team who were focused on ensuring that sustainable processes were implemented, as well as communicating the initiatives to the audience.

In terms of transport, Timber has worked with local transport providers to implement a free shuttle bus connecting the local train stations to their site. They have also incentivised bike riding and walking to the site. They’ve worked with their power team to build and pilot their own wind turbines, solar panels and battery storage options, although in the long run they would love to have a connection to the main grid with a 100% renewable tariff.

As Timber Festival has a very conscientious audience, they have never had issues with tents or litter being left behind, Ging told us. “The audience adopts and embraces new initiatives like reusable cups, so the focus is on creating the conditions and delivering the infrastructure that allow people to do the right thing easily.”

## THE SOLUTION



## GETTING SUPPORT FROM PARTNERS

Timber works with many partners who help them to implement their sustainability strategy. The festival receives grants from: the National Forest, Arts Council England, and the local authority.

Moreover, crew caterers, CBJ, have introduced vegetarian and vegan meals for the crew.

Midlands Classics and Red Fox Cycling have helped with sustainable travel, whilst networks and organisations such as Without Walls, Ecolibrium and Julie's Bicycle have provided support, knowledge and resources.

The festival has learnt that transparency, openness and honesty are most important when it comes to strategy and communication. "I think we sometimes underestimate our audience's appetite for change. We worry they'll complain about things, but with the right communication about our reasons why we're doing something, they are nearly always more supportive than we expect." Incremental change is also acceptable, Bird acknowledges, as "we can't tackle everything at once".



## WHAT'S NEXT?

Timber Festival is currently re-designing their system for assessing their environmental impact: they are trying out a risk assessment format, which all departments will have to fill in for their specific area. The team is making incremental improvements to the design of the on-site waste system, and production is transitioning to electric site vehicles. The festival continues to try to reduce fuel usage on site, increasing the quantity of battery storage each year. They are also tackling audience travel with the introduction of an affordable pre-pitch camping service to encourage audiences to come by public transport.



# POHODA FESTIVAL



Photo by Martina Mlcuchova

## CITY, COUNTRY

Trenčín, Slovakia

## DAILY CAPACITY

30,000

## SITE

Former military airfield of Trenčín Airport

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

1997

## GENRE

Alternative, Indie, Electronica, World music, Punk, Classical; film, literature, dance, visual art, theatre

## CHALLENGE & SOLUTION

Dealing with a lack of sustainable suppliers in the region by daring experiments



**POHODA – ADJ. & N. (SLAVIC) = FUN,  
EASY-GOING, PEACE, NO PROBLEM,  
RELAX, ENJOYMENT, COMFORT**

The name of Pohoda Festival is also its theme; relaxation and comfort are at the heart of the show. Pohoda has grown from a small local event with eight bands to the largest annual music event in Slovakia; a multinational festival which is capped at 30,000 visitors to retain a family feeling.

The programme is made up of performances from a range of creative fields. “There are lots of crazy things going on, but they all have a certain level of artistic quality in common – it’s all based on the love of freedom and free expression,” says Michal Sládek. Sládek is an architect by trade and is part of Pohoda’s production team.

He also coordinates the sustainability program.

Founder Michal Kaščák describes their approach as “the same as when you invite someone into your home. You want them to feel good in your home, you want them to have a good experience and a comfortable place to sit and sleep. You make them food and drinks and do everything possible to make them feel good.” Sládek adds: “The festival is strongly value-based, and one of the key values is care. With the notion of taking care of your festival as if it was your home, it is only natural to care about its environment as well.”





Photo by Martina Mlcuchova



We're developing with an understanding of what's possible here [in Slovakia].

## CREATING SUSTAINABILITY WITHOUT A LARGE SYSTEM OF SUPPLIERS

Sládek describes how making the festival more environmentally friendly is an even bigger challenge to Pohoda, because Slovakia has far fewer specialised companies than Western Europe. “We’re developing with an understanding of what’s possible here, especially in terms of suppliers and third-party solutions. I would like to go for compostable toilets, but no one in Slovakia is willing or capable to do it. You have companies in the U.K., but you wouldn’t call them to transport waste over 2000 kilometres,” he says. Sometimes, patience is required. “When in 2014 a company approached us who could do refundable cups, we immediately said: let’s do it. There was nobody else before that who could do it. It’s a long-term process.”

Despite the circumstances, Pohoda has integrated many sustainable features; to connect stages and stands to the main electricity grid, they partnered with a local energy provider and created a mobile solar power station. In 2018, the percentage of electricity created from diesel generators was lowered to 60% – 40% of the electricity came from the grid. To reduce travel emissions, they partnered with the national train company to operate special festival trains across the country, they promoted festival buses, developed carpooling, and provided bicycles on site for staff and artists to use. To reduce waste, they introduced waste separation in 2006, organic waste separation in 2015, compostable food packages and implemented a refundable beer cup system.

## DON'T BE AFRAID TO FAIL

When Pohoda was awarded the Green Operations Award at the 2017 European Festival Awards, Teresa Moore (A Greener Festival) said: “We acknowledge not just this work, impressive as it is, but creating all of this and more despite a limited infrastructure and support system in their country, particularly in their early days. This festival has championed these initiatives and leads the way for other festivals in the country and more widely in their region by showing what can be done with belief and determination.”

Sládek agrees that Pohoda has become a benchmark in the region. “We are open to do some consulting for other events, or they can just come and learn.” Luckily, as customers increasingly demand sustainability, companies become better suited to offer sustainable solutions and sponsors are more willing to

fund them, Sládek told us. “New products are not always successful though”, he adds, like the barrier tape they tried in 2021. “We found a company who made it from a biodegradable material, but it didn’t work at all. After one night, the tape stuck to itself, forming a rope, making it impossible to read anything printed on it. So, it disappeared pretty quickly,” Sládek says, laughing. “The lesson learnt is that we just keep trying.”

Founder Michal Kaščák’s decision to keep the stages decoration-free was pretty philosophical. “Michal doesn’t like distractions from the show, so he doesn’t want anything but technical equipment on the stage,” Sládek explains. In the end, this decision also helps the environment; fewer single-use decorations also mean less waste.



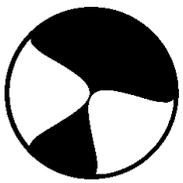
## FINDING DATA-BASED SOLUTIONS

One of the biggest challenges for all festivals, Sládek knows, is finding data-based solutions which answer the question, which approach is really the most sustainable?

This is why Pohoda is part of the Green Europe Experience Project (GEX). According to the project website, 'GEX is a living lab based on co-creation, mentoring, skills building between 4 major music & arts festivals, 2 NGOs and their teams.' The EU-funded project focuses on scenography and food. Innovations to make festival production circular and more sustainable will also be tested by the partners in several workshops.



**GEX is a living lab based on co-creation, mentoring, skills building between 4 major music & arts festivals, 2 NGOs and their teams.**



## CITY, COUNTRY

Milan, Italy

## DAILY CAPACITY

3000

## SITE

The park of Villa Arconati

## CAMPING

Yes

## NUMBER OF DAYS

3

## ESTABLISHED IN

2014

## GENRE

Experimental music, arts,  
architecture and design

## CHALLENGE & SOLUTION

Developing a sustainability strategy  
by focussing on reforestation,  
architecture and management



## EXPERIMENTAL FESTIVAL ON A CENTURIES-OLD ESTATE

As explained on the festival's website, Terraforma's name comes from the word 'terraform'; "the theoretical process in which life on a planet becomes possible through the creation of an atmosphere." The festival applies this process to music, using it as a catalyst for creative processes. "We imagined Terraforma as a living organism, constantly transforming itself and adapting to its surroundings as an ecosystem does in the natural world," says Ruggero Pietromarchi, founder and artistic director of Terraforma and its production agency Threes. As the festival visibly demonstrates the relationship

between event and impact, sustainability has been a natural part of Terraforma from the very beginning.

The festival combines music with artistic installations and workshops that include meditation and environmental aspects to "create an atmosphere that can stimulate the listener's senses to think about the present and the future in a new way." It takes place at Villa Arconati, just outside of Milan, at the beginning of July. Before the centuries-old estate was abandoned, it had once been so beautiful that it was called "little Versailles of Milan."

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TO VIEW





## DEVELOPING A LONG-TERM SUSTAINABILITY STRATEGY

For Terraforma, work on sustainability never ends. “In our opinion, environmental sustainability and sustainability in general are a mindset of continuous improvement in all our processes,” Pietromarchi says. This includes the design and planning of the festival as well as experimenting with specific new solutions in each activity and area of impact.

At the same time, the crew takes the role that a festival plays in raising awareness of social and environmental

issues within their community seriously. Therefore, according to the artistic director, the biggest challenge was getting into the right mindset. “This modus operandi forces your organisation to constantly challenge itself on how to do things better, not only artistically and financially but also in terms of impacts on the environment and the community. This can become stressful as you often find yourself unsatisfied with your results.”

“

**Environmental sustainability and sustainability in general are a mindset of continuous improvement in all our processes.**

*Photo by  
Edoardo  
Comba*

# REFORESTATION AND ARCHITECTURE...

“When it comes to sustainability, the most important lesson we have learnt is to have a holistic and long-term strategy. This requires us to see every single action as part of a bigger picture. It takes time and resources, but it definitely pays back in the long run, and not just financially”, Pietromarchi says. Although their festival model has brought them “significant cost increases”, many investments have already been paid off and many projects were designed to last throughout the years. Terraforma focuses its sustainability efforts on three key areas: landscape restoration, architecture and management approach.

“First of all, we implement strategies to restore our landscape and surroundings,” Pietromarchi says. One of the main goals is to restore Villa Arconati’s historic garden. In 2018, after three years of work and with only old drawings as reference, they finished replanting a historical hedge labyrinth from scratch that was believed to have been present on the Villa grounds in the 18<sup>th</sup> century. The labyrinth now

features 500 hornbeam trees growing in several hedgerows, which form the circular maze.

“We also undertook an extensive reforestation program across our campsite area which resulted in the planting of about 100 trees,” Pietromarchi adds. This project was inspired by the work of architect Cesare Leonardi, author of “The Architecture of Trees,” in which he examines their configuration in relation to their shade. Terraforma’s gardening team also safeguards the territory through land recovery, grey water collection and extensive cleaning procedures.

Architecture is the second big focus of Terraforma. “We actively collaborate with professional architects to develop our distinctive facilities which are mostly made of sustainable materials such as wood and iron,” Pietromarchi explains. Excess materials are reused to create secondary facilities such as tables, sinks and showers.

## THE SOLUTION



Photo by Mirko Cecchi

## ... AND LOW IMPACTS

“Last but not least, we aim to overcome the traditional event management approach by developing an organisational model that is able to measure, report and reduce our impact in terms of waste, mobility, energy and water consumption,” Pietromarchi says.

In 2019, Terraforma reduced the amount of litter per person by 35% and achieved a recyclability rate of 85% thanks to measures such as: recycling stations, green stewards, durable cups, 100% biodegradable dinnerware and cups, a plastic-free supplies policy for all beverage products and a no straws policy.

To reduce travel emissions, Terraforma uses electric vehicles for staff and artists. In 2018 and 2019, the electric fleet drove about 5200 km (3231 miles) in total, saving an estimated 650 kg of CO<sub>2</sub>. The festival runs campaigns to raise awareness of sustainable travel and

assesses their effectiveness through surveys. It offers free shuttles from the local train stations to visitors who arrive by train and promotes car-pooling options. “In 2019, we estimated that about 28% of our visitors reached us by train and each car was occupied by an average of 3 people travelling together,” Pietromarchi says.

Furthermore, Terraforma built a low impact lighting system for its campsite made from recycled materials and powered completely by solar energy. The lamps on the entire festival site are either LEDs or low voltage bulbs. In 2018, the festival adopted a water control system with self-closing valves for showers and sinks which could reduce the amount of water consumed by up to 56 litres per person.



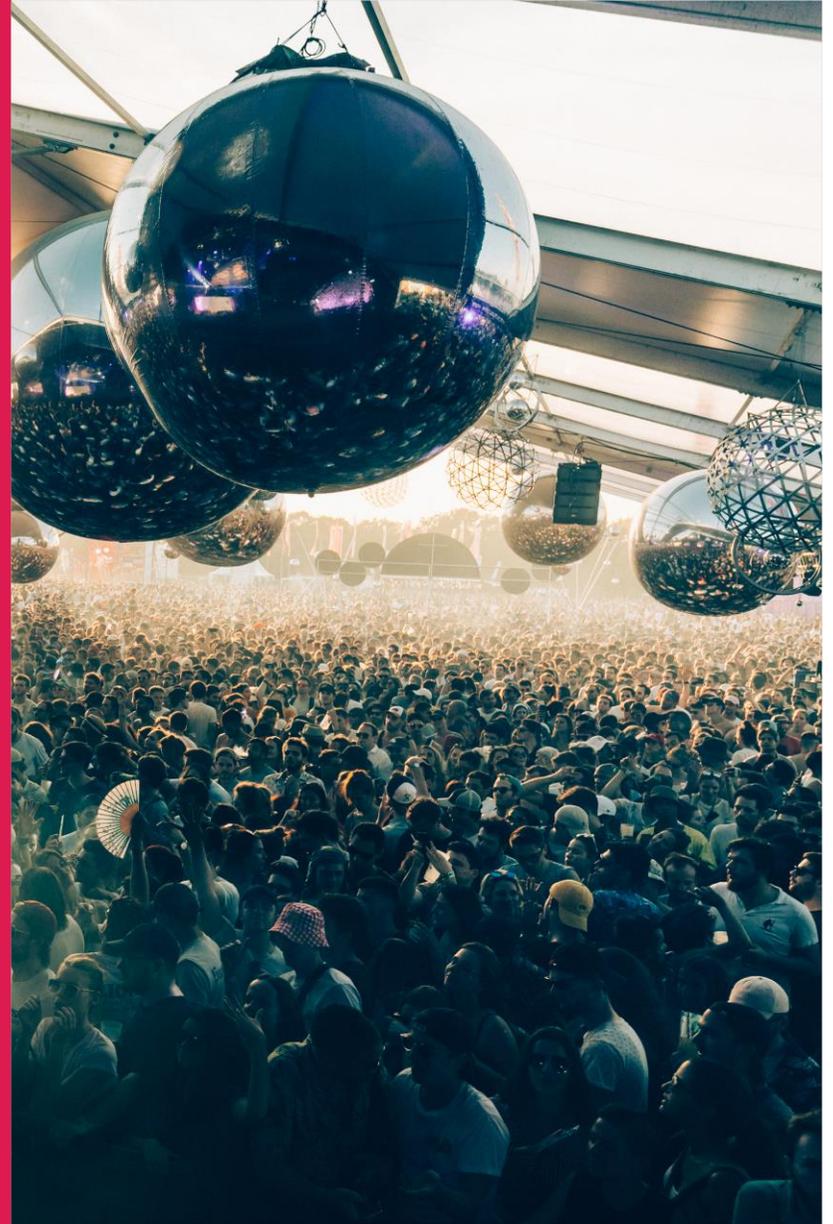
## WHAT'S NEXT?

Terraforma plans to continue their sustainability work to hold their leading position in the field and to keep inspiring their audience. The next steps will include restoring and regenerating the small lake part of Villa Arconati's park.



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# FUTURE FESTIVAL TOOLS

GREEN COMPETENCY  
FOR EVENT PROFESSIONALS

Photo by Pierre Ekman



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