







Sustainability of major events in urban environments

Result summary



Die Beauftragte der Bundesregierung für Kultur und Medien



"It's important to keep sustainability alive as a topic — personally, politically, and systematically."

Pierre Baigorry, SEEED (2023)

THE IDEA

Are live events part of the problem or part of the solution when it comes to fighting climate change? We believe it's the latter, as music connects people and inspires them, making it a trailblazer for systematic change in our society.

PLANT A SEEED is meant to create awareness for climate justice and our responsibility for it. We hope to encourage artists to take an active role and actively request certain standards for their own concerts.

We have to do everything in our power to adhere to the climate goal of 1.5 degrees Celsius as set out in the Paris Agreement and to drastically reduce climate damaging emissions. To achieve this, we need people with courage and vision.

Therefore, this report on the **PLANT A SEEED** project is directed at everyone working in the music industry, especially artists, whose reach and prominence puts them in a position to positively influence change in our society.

The following report contains the findings of a study that was conducted during five concerts played by the band *SEEED* at Parkbühne Wuhleide in Berlin, August 2022, as well as an assessment of the climate footprint. Additionally, a range of practical measures and communication strategies were carried out at the venue. We hope them to be an inspiration for the live music industry and for artists to design their concerts in a sustainable manner. The **PLANT A SEEED** project is a joint venture between the band *SEEED*, the BHT (Berliner Hochschule für Technik) and us—*The Changency – Agentur für nachhaltigen Wandel*.

With **PLANT A SEEED** we want to: • Create knowledge • Raise awareness • Be an inspiration

Inspired by SEEED: "Forget your strife, embrace life." Let's take up on our responsibility and make our future green. With this in mind: We hope that you will enjoy reading about this study, it's results, and the measures taken as much as we did creating them.

Katrin, Sarah und Rosa The Changency – Agentur für nachhaltigen Wandel

THE PEOPLE BEHIND THE SCENES

The PLANT A SEEED project was created and conducted by The Changency – Agentur für nachhaltigen Wandel in cooperation with the band SEEED and the degree program "Theater and Event Technology and Management" of the BHT (Berliner Hochschule für Technik) under the supervision of Prof. Thomas Sakschewski. This project has been supported by the "Initiative Musik" initiative and the Federal Government Commissioner for Culture and the Media (BKM).

About The Changency:

The Berlin-based agency *The Changency* is a symbol for empowerment and enthusiasm. It is a catalyst for the transformation towards a climate friendly and sustainable music industry. Our vision is to be part of the best party in town: A party that combines the passion and radiance of music with a better, more just lifestyle for everyone. We want sustainability to be fun, to offer opportunities and to show solutions born from creative ideas. The motto is motivation instead of resignation.

The Changency advises and provides support to bands, festivals, event managers and other participants in the music industry on their path to sustainability.

> Contact: hey@the-changency.de www.the-changency.de www.plan@seeed.de



PLANT A SEEED ON TV

The public German broadcaster ZDF accompanied *The Changency* during the realization of **PLANT A SEEED**

Plan b: Neue Töne (in German) is available via the TV channel's online media library. Hop on board!

WHAT'S IT ALL ABOUT?

PLANTA SEEED is a study with innovative character: Up to this date, no data on the environmental effects of large concerts had been collected and evaluated in Germany, nor on the measures that could minimize these negative effects.

The scientific study on the ecological and social sustainability of large concerts was conducted in Germany in August 2022, during five sold out *SEEED* concerts at Parkbühne Wuhlheide in Berlin (capacity of 17,000 visitors). In addition, the climate footprint was assessed, and a range of practical measures and communication strategies were implemented to include the audience and the team in the project.

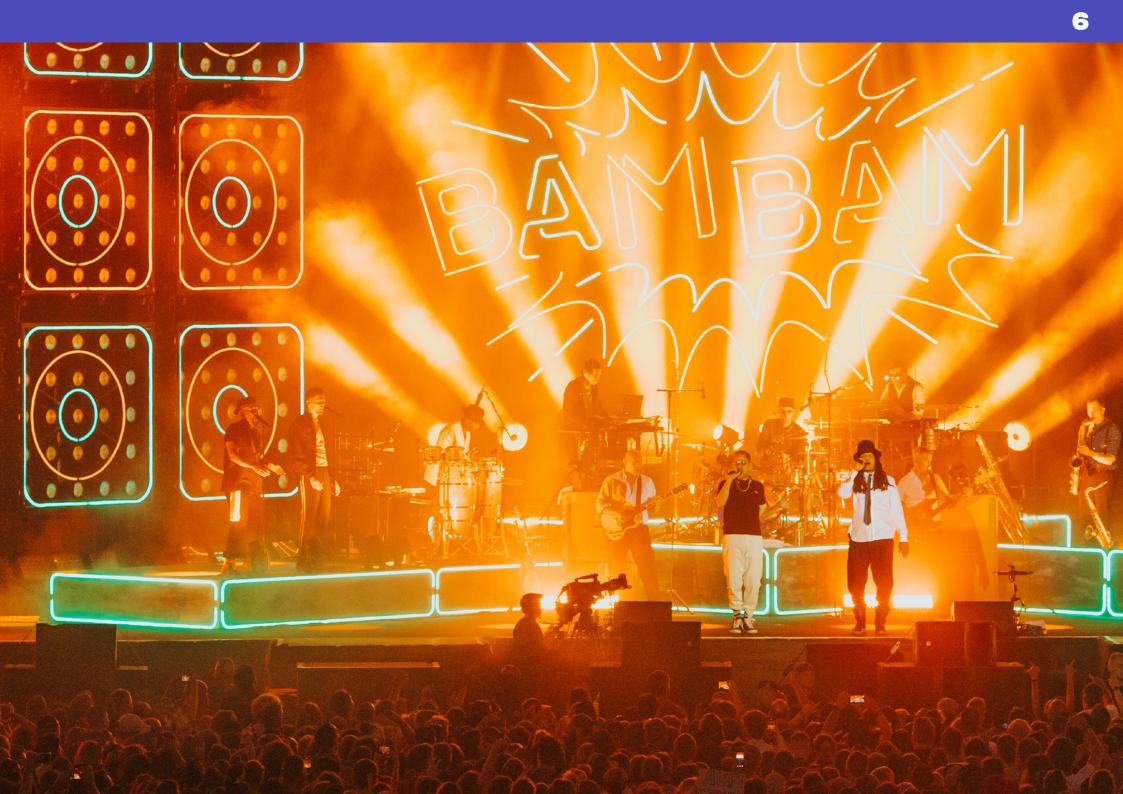
The three pillars of the **PLANT A SEEED** project



Scientific study Climate footprint concerts Practical measures and communication strategies

For each of the five concerts, the practical measures and communication strategies focused on a different topic, corresponding to five key areas of action:



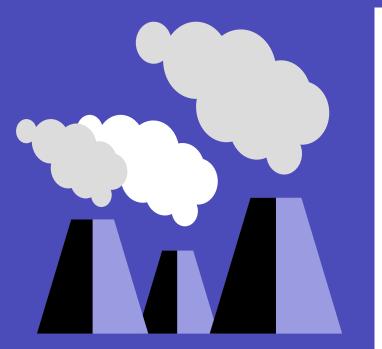




And now — with a lot of attention to detail — hereinafter you'll find:

• PLANT A SEEED in numbers	8-9
• Five areas of action, including:	10–19
A campaign with a range of practical measures and communication strategies carried out at the venue (hereinafter: the actions)	
Excerpt from the central findings of the study (hereinafter: the study findings)	
Conclusions from the assessment of the climate footprint (hereinafter: the climate balance)	
• The climate balance	20
Conclusion	21-23
• Attachment: The research methods 26	

PLANT A SEEED IN NUMBERS



All five concerts together produced

1,003.44 tonnes of CO₂

Per concert: 200.69 tonnes of CO₂ \Rightarrow 1 concert equals the average yearly CO₂ footprint of **19 people** in Germany

94% +1

of the visitors stated that they are willing to pay 1 euro extra per concert ticket to help people in an unfortunate financial situation to be able to buy a ticket. Overall electricity consumption on all days:

20,063 KWh

Per concert: 4,013 KWh

 \Rightarrow on average, this is 60–80% (or more than 15,180 kWh) less electricity consumption per capita than at home.¹

1 Source: Destatis (2022). Electricity consumption of households by household size. Retrieved on February 8th, 2023



pocket ashtrays

were distributed at the venue on one day.



6,000

people scanned the QR code to take part in the survey that was conducted as part of the scientific study. 2,700 people completed the survey.



About

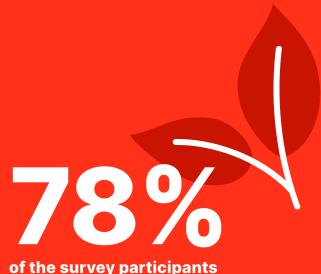
3.25 mio. litres

of water have potentially been saved from pollution because 0.65 kg of cigarette butts (about 3,250 pieces) were collected at the venue.

PLANT A SEEED IN NUMBERS

Overall water consumption on all five days:





consider sustainability to be an important or very important aspect of their lives. This is more than the national average in Germany.



3,418

plastic bottles could be avoided by using a **water bar and reusable bottles** in the crew and backstage area.

366,754 liters

Per concert: 73,350 liters

 \Rightarrow 1 concert equals the yearly consumption of less than 2 people in Germany.



bags were sewn from an old *SEEED* stage banner

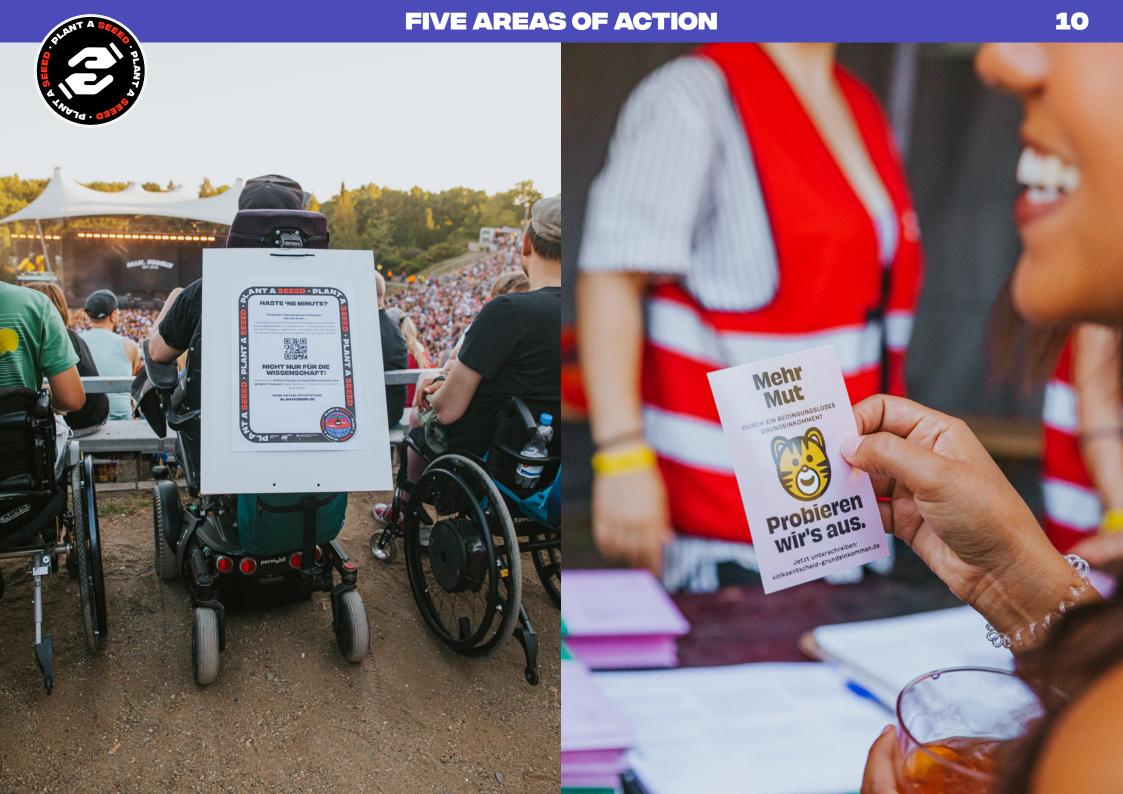




pictures were taken for evaluation for the study – 100 of these were pictures of trash can contents.



study assistants collected data at the venue.





Area of action 1: Social sustainability

The connection between climate protection and climate justice

Countries with higher incomes are more responsible for climate related damage — more than 90% of the global emissions are caused by the global North.² However, the devastating consequences of global warming affect the poorer countries of the global South much more strongly. Therefore, the climate crisis is a crisis of justice and the system we live in.



- Five different NGOs and initiatives received local visibility in the form of an own stand: SOS Humanity, Sea Shepherd, Klimaneustart, #BIKEYGEES and Give Something Back To Berlin (Open Kitchen).
- The income generated from the guest list was collected and donated to the above organizations.



2 Source: Hickel, J. (2020). Quantifying national responsibility for climate breakdown: an equality-based approach for carbon dioxide emissions in excess of planetary boundaries. The Lancet Planetary Health, Volume 4, Issue 9



• Solidarity ticket:

A vast majority of the survey participants (94%) are theoretically willing to pay 1.00 additional euro per concert ticket to help people in an unfortunate financial situation to be able to buy a ticket.

- Noise emissions: 18% fear that their hearing might suffer at concerts, but only one in eight will wear hearing protection. Reasons for not using hearing protection are a perceived lack of "concert feeling" (50%), lack of comfort (14%) or negative effects on communication (11%).
- Infrastructure for people with limited mobility: The qualitative survey found that it's important to provide accessible seating with a clear view and seating for the accompanying person nearby, a good and easily accessible guidance system, clean and accessible toilets and helpful personnel.

300 limited gym bags were crafted from one stage banner of the band's 2007 tour and raffled among all participants of the study's survey.





SEEED stage banner

Linute of the second



Area of action 2: Consumption and procurement

Why your purchase decision makes all the difference

The textile industry is among the main polluters and is responsible for about 20% of the global water pollution and 10% of all global CO₂ emissions.³⁴ Manufacturing one jeans alone consumes about 8,000 liters of water. Furthermore: 80% of the people working in the textile industry are women and girls, who sometimes work 60 hours per week for 18 cents per hour or less.⁵



• Merchandise: Over the course of **PLANT A SEEED** and for all of the *SEEED* tour 2022, only merchandise made from organic cotton and plastic-free monomaterials with a GOTS certificate (exception: socks with elastane) was sold. Posters informed fans at Parkbühne Wuhlheide about sustainable production and provided information on long-lasting usage of textiles. Additional merchandise products related to sustainability were sold, e.g. pocket ashtrays or *SEEED* Balls (balls made of seeds).

- Upcycling & Re-usage: 300 limited gym bags were crafted from one stage banner of the band's 2007 tour and raffled among all participants of the study's survey. SEEED use their stage design for many years.
- Procurement: Fairtrade and organic tea, coffee etc. was procured for crew and band members.



• Merchandise:

95% of the survey participants stated that merchandise should be fairtrade and produced sustainably. One in eight people is willing to pay 16–28% more for these products at concerts:

40% of the survey participants said they were willing to pay up to 5 euros extra, an additional 40% said they would pay up to 10 euros extra and 14% would pay more than 10 euros extra for sustainable merchandise products. 5% are not willing to accept higher prices for sustainable merchandise.

 Fairtrade and organic: Nearly two-third (63%) would choose drinks or food with a fairtrade or organic certificate over other food or drinks at a concert: 35% are able to pay 1 euro extra, 51% up to 2 euros, 15% 5 euros extra or more.

³ Source: European Parliament. The impact of textile production and waste on the environment. Retrieved on February 2nd, 2023

⁴ For a better readability we decided to use "CO₂" in the whole report. This refers to CO₂ equivalents: Emissions from other greenhouse gases than carbon dioxide (CO₂) are converted into CO₂ equivalents according to their global warming potential (CO₂ = 1). Source: UBA (2022) glossary beginning with C (in German). Retrieved on February 2nd, 2023

Source: No Sweat – Fighting Sweatshop Labour. Sweatshops – The Issues. Retrieved on February 2nd, 2023



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Nearly two-thirds (72%) of the survey participants were okay with vegetarian food offers and a majority (55%) was okay with vegan-only food.



Area of action 3: Food

Climate protection on your plate

Intensive animal farming is responsible for 14.5% of man-made greenhouse gas emissions ⁶ and requires a lot of resources: The production of 1 kg of beef requires 15,000 liters of water. Furthermore: In Germany alone, 12 million tonnes of food are wasted each year.⁷



- Crew and artist catering: For two days the provided catering was 100% vegan, for the remaining three days it was vegetarian-vegan.
- Communication within the team: Information boards with the climate footprint of all foods were displayed locally to make emissions visible and to emphasize how much CO₂ reduction is possible if the band and crew change their eating habits.
- Communication for fans: On our food-themed day each food stand displayed information on the meal causing the least emissions ("most climate friendly").

- 6 Source: Albert Schweitzer Stiftung (2022). Tierprodukte befeuern Erderhitzung (Animal products fuel global warming, in German). Retrieved on February 2nd, 2023
- 7 Source: Hummel, A-K., Welthungerhilfe (2022). Lebensmittelverschwendung | Ursachen & Fakten (Food waste | Reasons & Facts, in German). Retrieved on February 2nd, 2023
- 8 Source: Tagesschau (2019). Wie viel ist eine Tonne CO₂? (How much is one ton of CO₂?, in German) Retrieved on February 2nd, 2023



- Food service offerings: 89% of the survey participants at the venue stated: Sustainability of the food is more important than a large variety. A majority (58%) is willing to pay 7–8 euros for sustainable food.
- Plant-based food: Nearly two-thirds (72%) of the survey participants were okay with vegetarian food offers and a majority (55%) was okay with vegan-only food.
- Food orders: On average, 60% of the food ordered in three days was vegan or vegetarian.

During our participatory observation, we found that by informing on the most climate friendly meal, the number of vegan food orders went up by 9 percentage points, to 43% — compared to 34% on the previous day.



- By choosing vegan/vegetarian catering for artists and crew members, 1.18 tonnes of CO₂ could be saved for lunch and dinner on all five event days. This equals the emissions of a train drive of nearly 94,000 kilometers. A beech tree would have to grow 94 years to compensate these emissions, had they occurred.⁸
- Food and drinks consumed by the audience and band/crew (excluding transportation and electricity consumption at the venue) sum up to a CO₂ footprint of 93.31 tonnes of CO₂ for all five days, or 18.66 tonnes of CO₂ per day, on average (9.3% of the total emissions).



Area of action 4: Mobility

I want to ride my bicycle

Nearly 20% of greenhouse gas emissions worldwide originate from traffic.⁹ About 50 – 80% of the total emissions of festivals and concerts originate from audience travel.¹⁰



- Parking space for bicycles: A monitored free parking space for bicycles was deployed (capacity due to local conditions: 250 bikes) to make it easier for the audience to arrive on their bike.
- Organized bike tour: The band and their fans arrived at the venue together, following a registered bike-protest, organized in cooperation with ADFC Berlin and NGO #BIKEYGEES.
- **Public transport:** It's already standard for the band to include free arrival by public transport for fans in the concert ticket.
- **eMobility:** Using eMobility for parts of the local crew.



- Travel distance audience: Nearly two-thirds of all visitors (62%) arrived from Berlin or the surrounding area. One in five fans (19%) travelled more than 300 kilometers, with a travelling time of more than 3 hours.
- Means of transport: Main transportation used by the audience was public transport or long-distance trains (56%) followed by cars (31%, with an average of 3.1 persons per vehicle). About one in ten people arrived by bike (9%).
- Parking space for bicycles: The parking space for bicycles was highly frequented on all days. Additionally, a few hundred bikes were irregularly parked around the venue. This shows the need for a long-term infrastructure solution and the respective communication towards the audience.



 CO₂ emissions audience travel: The audience travel caused 882.41 tonnes of CO₂ (87.9% of the total emissions).

25% of the audience travelling long distance (more than 250 km) is responsible for nearly 75% of the overall CO₂ emissions caused by arrival and departure.

- CO₂ emissions arrival per person: On average, every attendee of the event caused 0.01 tonnes of CO₂ for arrival and departure, which equals 40% of the average daily CO₂ footprint of one person in Germany.¹¹
- CO₂ emissions production: The delivery of goods for food services, the arrival of the band and support act, as well as the transport of production material caused emissions of 1.02 tonnes of CO₂, which is less than 1% of the CO₂ emissions in the mobility section (or 0.1% of the total emissions).

9 Source: Ritchie, H. Our world in data - emissions by sector (2020). Retrieved on February 2nd, 2023

10 Source: Johnson, C., Badiali, C. (2020). The Show Must Go On Report / Vision 20:25. Retrieved on February 2nd, 2023

11 Source: BMUV (2022). Kohlenstoffdioxid-Fußabdruck pro Kopf in Deutschland (Carbon dioxide footprint per capita in Germany, in German). Retrieved on February 2nd, 2023.

Distribution of means of transportation (modal split) according to the survey.

47 %	Public transport
31 %	Car
9%	Train (long-distance or regional)
9%	Bicycle

2% By foot1% Motorcycle1% Plane0% Coach



Resources & climate

Trash doesn't exist! Waste and water are valuable resources.

A sad record: Concerning the amount of waste, Germany is on 4th place in the EU.¹² With 632 kilos, this puts us way above the average of 505 kilos. In Germany, about 2 million plastic bottles are used per hour.13



 Source: Municipal waste in Europe. Retrieved on February 2nd, 2023
Source: Deutsche Umwelthilfe (2022). Mehrweg ist Klimaschutz (Re-use means climate protection, in German). Retrieved on February 2nd, 2023



- Waste prevention in the production area: Using a mobile tap water bar on request of the tour manager as well as reusable bottles for the band and crew members.
- Waste separation in the production area: Waste was separated into residual waste, paper and recyclables.
- Creating awareness of the pollution caused by cigarette butts:
 - OPlayful disposal of cigarette butts in ballot trash cans provided by Berliner Stadtreinigung BSR (Berlin waste management).
 - O Specially designed and signposted trash cans to separately collect cigarette butts and have them recycled by TobaCycle e.V.
 - ODistribution of free pocket ashtrays on one concert day to reduce waste.
- Energy consulting: BUND e.V. consulted the event location Parkbühne Wuhlheide.
- Sustainable technology: 100% LED for the show on stage, which has been in place for SEEED for many years.
- Fan campaign: The aim was to raise awareness on waste and water pollution at the World Cleanup Day. Members of SEEED, their fans, the Clean River Project team, the initiative "Frag nach Mehrweg" and the "Zero Waste" project of BUND e.V. together with The Changency cleaned Berlin's Landwehrkanal of waste on September 17th, 2022.



B The study findings:

- Recycling of cigarette butts and water pollution: 0.65 kg of cigarette butts (about 3,250 pieces) were collected separately and forwarded to recycling. A cigarette butt can pollute up to 1,000 liters of water. This means that potentially 3.25 million liters of water could be saved from pollution by recycling.¹⁴
- According to the survey, nearly all survey participants (93.6%) are willing to use a pocket ashtray.
- General waste behavior: Nearly all survey participants (99%) try to thoroughly dispose of their trash when they attend music events. According to the survey, the challenges that visitors faced when trying to dispose responsibly are overflowing trash cans (81%), the lack of waste separation at the venue (40%), too much distance to the nearest trash can (32%), no visible separation even when separation containers were in place (17%) and peer behavior (8%).
- Avoiding waste backstage: During the five event days and on the day of setup 1,128 liters of water were drawn from the mobile tap water bar for band and crew members. This equals 3,418 PET plastic bottles (0.33 liters) or about 0.41 tonnes of CO₂.¹⁵
- Water usage in total (including sanitary areas, infield irrigation, catering, backstage): On all five days of the event, 366,754 liters of water were consumed, 73,350 liters per concert. The per concert amount equals the yearly consumption of less than two persons.¹⁶
- Energie (show, cooling, food & drink services and catering): The total electricity consumption on all five event days accumulated to 20,063 kWh. Per concert: 4,013 kWh

on average, this is 60–80% (or 15,180 kWh) less electricity consumption per capita than at home.¹⁷

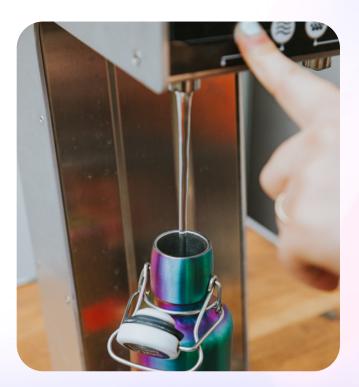
14 Source: Roder Green, A. L., Putschew, A. & Nehls, T. (2014). Littered cigarette butts as a source of nicotine in urban waters. J. Hydrol. (2014).

- 15 Source: Droople I 3,418 x 0.33 I plastic bottles
- 16 Source: Destatis (2022). Water management. Retrieved on January 15th, 2023

17 Source: Destatis (2022). Electricity consumption of households by household size Retrieved on February 8th, 2023

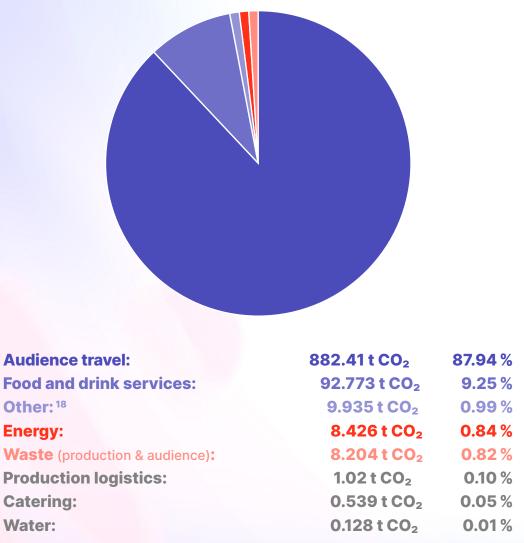
The climate balance:

- Waste: The emissions through waste (production and audience) sum up to a total of 8.20 tonnes of CO₂ (or 0.82% of the total emissions).
- Water and power: Water consumption produced 0.13 tonnes of CO₂, electricity consumption 8.43 tonnes of CO₂ (0.84% of the total emissions).
- Waste separation and recycling: In the artist and crew area, the CO₂ footprint could be reduced by 0.46 tonnes.



Climate footprint of all five SEEED concerts

at Parkbühne Wuhlheide, August 2022



18 For other processes 1% of the calculated amount of CO2 has been considered.

19 Source: BMUV (2022). Kohlenstoffdioxid-Fußabdruck pro Kopf in Deutschland (Carbon dioxide footprint per capita in Germany, in German). Retrieved on November 28th, 2023

20 Verified green electricity with the label "Grüner Strom Label".

► The five SEEED concerts produced 1,003.44 tonnes of CO₂ emissions, or 200.69 tonnes of CO₂ per show. The latter equals the average yearly footprint of 19 persons in Germany.¹⁹

The biggest possibilities for events to reduce the CO_2 footprint are mobility (audience travel), making up 88% of the total emissions, food & drinks services and catering, with 9%, as well as energy. These three categories make up 98% of the overall CO_2 footprint! Waste can also be an important leverage factor because of the high visibility!

Surprisingly, despite Parkbühne Wuhlheide being an urban event location, fees for public transport being already included in the concert ticket price, free parking spaces being available for bikes and the shows taking place during the 9-euro-ticket campaign in Germany, the mobility of the audience makes up for such a high percentage of the total survey (88%). In future, there should be more communication with fans to raise awareness for the emissions resulting from arrival and departure — and especially for the fact that a bicycle causes zero emissions. During the booking process it should be kept in mind that ideally, bands should perform nation-wide to reduce long-distance travel of fans of more than 250 km. Another possible research question could be: How big is the reduction potential of indirect emissions caused by audience mobility?

Food services and catering can also be considered a low-threshold leverage factor with a big reduction potential through a plant-based diet with less footprint. Another area of action is energy, where switching to a verified green electricity provider²⁰ can easily help reduce emissions.

CONCLUSION



What's there to say? With this scientific study and through its climate balance, PLANT A SEEED has shown that mobility and electricity are the two main causes for pollution (97%) at major events in an urban surrounding. The audience survey and communication at the venue have shown that the audience is often willing to go further than the industry believes:

- Social sustainability: 94% of the survey participants were willing to pay more for their concert ticket to enable people with less financial means to obtain tickets on a reduced price.
- Consumption & procurement: 95% of the survey participants stated that fairtrade products and sustainable merchandise are important, and that they are willing to accept a price raise because of this. The same holds true for food and drink offerings at the venue.
- Food: More than half of the survey participants stated that they are ok with vegan-only food offerings and three-fourths are happy with vegetarian

food offerings. For the majority, sustainable food was more important than a large variety. These claims could be verified during field testing: More than 60% of the food ordered during the concerts was vegan or vegetarian.

Mobility: By travelling from all over Germany, 25% of the audience was responsible for the biggest part of the CO₂ emissions in the mobility sector. Generally, a balanced tour routing with easy to reach venues in several central areas of a country should be aspired to minimize the travel distance for fans. The mobility of production and artists made up for less than 0.1% of the total CO₂ emissions in the climate balance. The free parking spaces for bicycles

at the venue were highly frequented on all days.

Resources & climate: Nearly all survey participants (99%) try to thoroughly dispose of their trash when they attend music events. Challenges are overflowing trash cans or too much distance to the nearest trash can.



- A large part of the audience is ready for change and we need to use and leverage this. Festivals and concerts should not only live up to their social responsibility in the future but also use the possibility to engage the target audience more through value-based initiatives and communication and to create a common identity, just as our project did:
- Food: During our participatory observation, it became clear that by informing on the most climate friendly meal at each food stand, sales of these meals went up by 9% (compared to the previous day). Switching to a catering service with a completely vegan/vegetarian portfolio alone reduced the CO₂ emission by the amount that a beech tree, in order to compensate it, would need to grow 94 years for.
- Resources & climate: On World Cleanup Day, Mid-September 2022, fans were encouraged to free Berlin's Landwehrkanal of waste together with the band and NGOs.
- Mobility: A joint bike-protest for climate friendly arrival at the venue conducted by the band, the ADFC Berlin, #BIKEYGEES and The Changency was very helpful to raise awareness for sustainable mobility and at the same time to lead by example as a band.
- Overall: The importance of communication can't be stressed enough, as well as the low-threshold engagement of the audience at the venue (e.g. by using LED screens next to the stage), to enable the success of a planned sustainability concept. Measures like including the public transport ticket or supplying free parking spaces for bicycles have to be communicated broadly and well in advance.

CONCLUSION

For a positive error culture: The following aspects could have been conducted differently/better:

- Taking into account the climate balance and fan mobility being one of the main contributors (88%) to the total CO₂ footprint of the concerts, our communication focus should have been directed more towards climate friendly audience travel. Ideally, this should have been carried out more strongly via all project partners' channels.
- eShuttles planned for the band did not work out due to availability and financial reasons—despite intense research and the evaluation of multiple possibilities by the tour management.
- QR codes printed on reusable cups leading to the study survey were not accepted as well as anticipated. Only when the QR codes were shown extensively and clearly on the LED screens next to the stage the participation increased.
- Due to legal requirements and hygiene guidelines no alternatives could be found to the "pit water" handed out to the audience in single-use plastic bottles in front of the stage.
- In addition to the scientific insight, PLANT A SEEED created something very important: The project has been an inspiration and motivation for others, and only a few weeks later the first similar projects emerged. THIS is exactly what we need in these challenging times: Flagship projects that encourage, make you think and gain insights for a whole branch of business. Motivation instead of resignation!

We, as the music industry, need to become aware of our responsibility and we have to accommodate change with inspiration — this will make the audience as enthusiastic as the artists we work with.

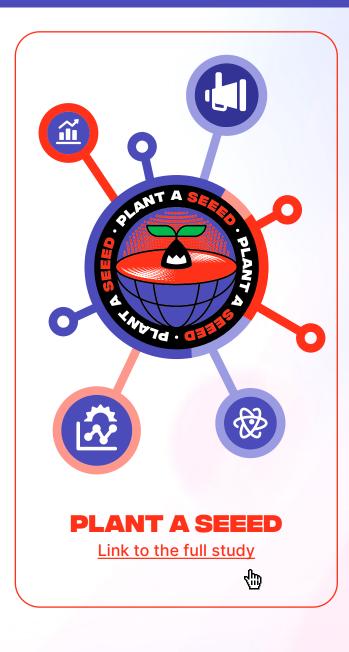
There needs to be less "Yes, but...", and more openness and courage for trying new things and making a change. It's not about superficial but fundamental change. Because one thing is absolutely clear we can only tackle this change together.

Join in, copy the idea and enhance it, and share it with others.

THANKS!

The Changency – Agentur für nachhaltigen Wandel







THANKS!

This project is a joint venture and would not have been possible without the support and help of many partners as well as funding by the "Initiative Musik" initiative and the BKM. Special thanks go to the band SEEED, who had the courage and openness to realize this flagship project. Big thanks to Markus Bruns and Paulin Pintsch of Brunetti Management, Lars Grewe, Thommy G, Tobi Bußkamp, Markus Große and Anna Busch of All Artists Agency, Jörg Voigtländer and Mo Anayssi of Parkbühne Wuhlheide, Gianni Pareja, Julian Vogels, Lukas Mühlbauer, Karen Welsch — and of course: Prof. Sakschewski and his team from the BHT, Berliner Hochschule für Technik.



Additional supporters:

Hells Kitchen Catering, ADFC Berlin, Deutsche Umwelthilfe, Berlin Music Commission, BUND e.V., Berliner Stadtreinigung, FEZ, Loft Concerts, Livekomm, GTB – Gastroteam Bremen, Fahrradgarderobe Michael Kellenbenz, #BIKEYGEES e.V., Klimaneustart Berlin, Sea Shepherd, SOS Humanity, Give Something Back to Berlin.

Credits

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Research methods for the study and climate balance

The aim was to gain actionable insights for the whole industry during the five *SEEED* concerts at Parkbühne Wuhlheide in Berlin. To achieve this, different research methods (mixed methods) were combined:

- Interventions or sustainability measures in accordance with the campaign of practical measures and communication strategies for all areas of action (social sustainability, consumption and procurement, food, mobility, resources & climate)
- **Quantitative surveys:** Questions on the topic of the day were asked in an online survey every day, which was accessible to the audience via QR code.
- Qualitative survey among caterers and people with limited mobility.
- Participatory observation of food and drink orders
- Visitor count for insights on the means of transport
- Pictures for documenting the amount of waste
- Secondary data as, for example, consumption data on water and electricity by the venue Parkbühne Wuhlheide

Audience demographics (participants in the quantitative survey)

- Participation: more than 2,700 completed participations (audience total: 85,000 visitors)
- Sustainability awareness: More than two thirds of the survey participants (78%) consider sustainability to be an important or even very important aspect of their lives. This is more than the national average in Germany.
- Age: The age distribution is equally portioned between 19 and 55 years of age.
- Gender: diverse: 1% // female: 55% // male 43% // not specified: 1%



The Changency – Agentur für nachhaltigen Wandel Contact: hey@the-changency.de www.the-changency.de