

online meetings & trainings

GREEN

HOUSE

**REPORT: ALIGNING NATIONAL
STRATEGIES ON SUSTAINABILITY
FOR THE LIVE MUSIC SCENES**

GREEN HOUSE

SESSION 1

Awareness tools & arguments to unlock collective actions. «Align what you say with what you do!»

RESSOURCE

- [Sangeeta Waldron's agency](#)
- [Earthpercent by Brian Eno](#)
- ["Celebrating the future!" clubs strategy and communication from Germany](#)
- [IMPALA launches sustainability programme](#)
- [Carbon calculator tool](#)
- [Julie's Bicycle](#)
- [Music Declares Emergency](#)

TAKE-AWAYS

- Let's act collectively to leave no one behind and have a broader impact
- It is crucial to train our board leaders about CSR strategies and communication to include it in the association's structure and not only through projects
- Make the story of your organisations evolve within a sustainable future and how our local music scenes can contribute to it!

SPEAKERS



SANGEETA WALDRON

Sangeeta Waldron is a multi-award-winning Public Relations professional, who runs her own London based PR agency, Serendipity PR & Media. She

was named in Commetric's Top 100 of the PR Influencer Index & Top 15 Women Influencers in PR & Communications. She works with brands and organizations helping them to strategize and strengthen their brands with regards to incorporating corporate social responsibility and sustainability. Sangeeta started out her career writing speeches for a previous UK Prime Minister and Ministers, and has worked at the top level with big, powerful global brands, which includes - being global communications director for the Economist Group; the first Mayor of London; Cass Business School; and charities.



KARLA ROGOZAR

Karla Rogozar is the Project and Network Development Coordinator at IMPALA, the European association of independent record labels, based in Brussels.

IMPALA's mission is to grow the independent music sector sustainably, return more value to artists, promote diversity and entrepreneurship. Karla is the lead person on sustainability topics at IMPALA, including IMPALA's bespoke carbon calculator and on IMPALA's network development activities, especially in Central and Eastern Europe, providing support to (future) members in the region. When out of projects to coordinate in her free time, Karla likes to keep herself busy organising events in Brussels and volunteering at music festivals across Europe.

Karla Rogožar, Network Development, Sustainability and Project Coordinator at IMPALA, the European Music Companies Association, introduced their sustainability roadmap, designed and implemented by an internal task force.

IMPALA provides its members with a bespoke carbon calculator, developed with Julie's Bicycle. **Fundraised by 32 contributors from IMPALA's membership, the tool is now available for free for all IMPALA members.** Over 100 users already benefit from the tool and IMPALA plans to release the first global report in June 2023.

With this introduction, Karla sent an inspiring message to the participants on what can be achieved collectively and how European cooperation can be a relevant scale to act on ecological transition.

Sangeeta Waldron, a Public Relations specialist, offered a workshop to Live DMA members about Corporate Social Responsibility (CSR).

CSR allows to identify where its decisions and activities have an impact on society and the environment. At the same time, CSR enhances the organisation's reputation and strengthens the brand. This is why it is essential to communicate about its CSR values. In the future, CSR strategies might replace business strategies.

Research shows that audiences are ready to be loyal with authentic CSR organisations, and that investors, as well as public policy makers, are looking at companies with CSR because it lowers the risks for investments.

The first step of the process is to revise your mission statement to include strong values related to CSR. The second step is to create a storytelling out of it. **The storytelling is the story of WHY you are doing it, it is really different from communicating about your project's activities.**

How CSR Brand Values & CSR Initiatives Come Together

- Integrity – We only work with ethical and sustainable suppliers
- Passion – We are passionate about the planet and passionate about ensuring we reduce our waste
- Fun – We believe in giving everyone a good time, without cost to the planet
- Honest – We are committed to ensuring we reduce our carbon emissions and/or only serve plant based food
- Committed to diversity – With our acts, with recruitment/staff/boards

Sangeeta's advice is to reflect on a few key values and then give detail about how it is translated into actions, and communication.

The Live DMA members participated in this short exercise. The main values that were outlined related to solidarity, trust, honesty, togetherness, exchanges and democratic. These values are attractive to new members, and the story we create also needs to be engaging and bring positive futures. Even as non-profit organisations, it is important to show how authentic we are to public funders.

Although Live DMA members often implement dedicated actions towards sustainability, it is not reflected in the overall message of their organisation. **We should consider updating our narratives in the prism of sustainability to show that it is at the core of our organisations and engage our members into bright future scenarios.**

SESSION 2

The use of carbon measurement in music event management and music advocacy. «What you measure you will manage»

SPEAKERS



JULIAN VOGELS

Julian Vogels is a sustainability consultant for companies and institutions in the cultural sector. He is a certified transformation manager for sustain-

able culture, holds a Master in Music Technology and a Master of Business Administration. He became known in the music industry as the technical co-founder of international music technology startup Soundbrenner, where he developed the portable music accessories Soundbrenner Pulse and Core, which are shaping the practice habits of musicians worldwide. As a long-time active member of Music Declares Emergency Germany, a climate movement within the music industry, he contributes to the team network and coordinates collaboration with international peers. Julian lives and works in Berlin.



GARANCE AMIEUX

Garance Amieux is the project manager of a support program for musicians and cultural project leaders. As part of the PÉRISCOPE team (venue in Lyon)

she is in charge of helping the local scene to access professionalization and sustainable artistic career. Besides she is also in charge of the ecological resources to Footprints concerning carbon accounting strategy for cultural organizations and sustainable tours.



ESBEN MARCHER

Esben Marcher is the director of Dansk Live, the Danish organisation for live music venues and festivals. Back in 2022, the national organisation

launched a carbon footprint calculator with the company WorldPerfect. The tool collects data in the areas of waste, water, transport and energy, measuring consumption and optimising potential solutions from year-to-year for the organisations ; but is also a bid for a common and simple way to learn more about the industry's total CO2 footprint.

The objectives of the session were to get all the participants on a same level of knowledge about carbon footprints, Discover two examples of carbon footprint tools used by the members and exchange with the group of participants.

WHAT IS A CO2 FOOTPRINT?

A CO2 footprint is a tool that describes the total gas emissions of a company, site, product or project. It is restricted to some kind of duration and or location scope, this is what we call the **system boundaries**. It **excludes other environmental impact such as water or soil contamination, biodiversity** etc. while live music events can actually also have a big impact on these areas ([read “Glastonbury: drug traces from on-site urination could harm rare eels”, The Guardian](#))

The [Greenhouse Gas Protocol](#) is a worldwide standard that categorises emissions through scopes and determines the unit of measure (CO2 equivalent) and brings the actual values based on the national energy mix.

Why a CO2 equivalent?

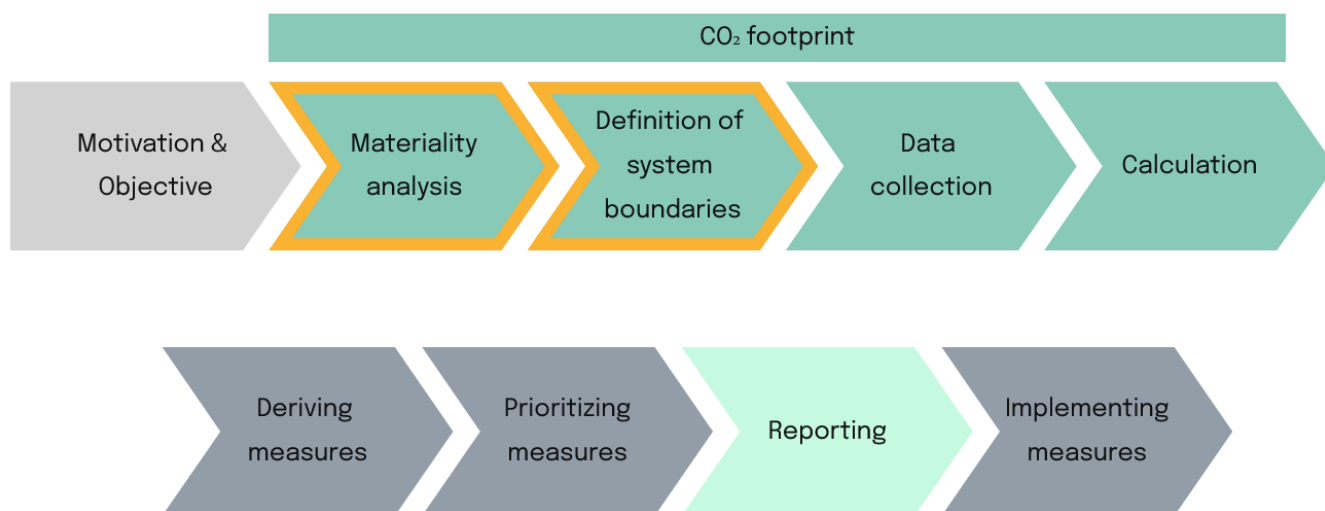
CO2e is a unit of measurement that is used to standardise the climate effects of various greenhouse gases. If you drive a car, there is not only CO2 coming out of your gas, and some of them are much worse than CO2. For instance, releasing 1kg of methane is just as harmful as releasing 4kg of CO2.

What's the scope (1,2 or 3)?

The scopes were defined for the industry (factories), so they don't exactly fit with the music sector.

- Scope 1 refers to everything that you burn on your premises. It is all about sources that you control directly (ex: companies' vehicles).
- Scope 2 refers to the energy you buy from somebody else. That's purchased electricity, heating etc.
- Scope 3 refers to everything else, in our sector in include the artists and audience mobility for instance.

In the industry, like factories, scope 1 and 2 are often sufficient but in the music sector, it is important to work with the scope 3.



The CO2 footprint is usually embedded in a climate strategy that needs to be published transparently. The preliminary step is actually what we discussed during the first session of The Greenhouse: How to anchor your values and your motivation in your CSR. Then you enter a process composed of 4 work packages:

- The **materiality analysis**: what are the components or activities you have? What does your business consist of? Then you define what's "in" or "out" your carbon calculation. What's on your power to change?
- The definition of the system boundaries (duration and location)
- Data collection

- Calculation: **it is important to develop indicators for better comparability. Indicators can be per visitor, per m2, per event etc. because it is possible that next year you will have more events or more visitors and you need to be able to compare your data from year to year.**

This is not the end though. What you want to do with these numbers is to prioritize and implement measures to reduce your carbon emissions. You then also report every year on the progress you made. This forms basically the climate strategy.

A comparison with other cultural institutions is not meaningful because first, the objective is to start from your situation and improve your own situation, and then, different system boundaries may have been defined.

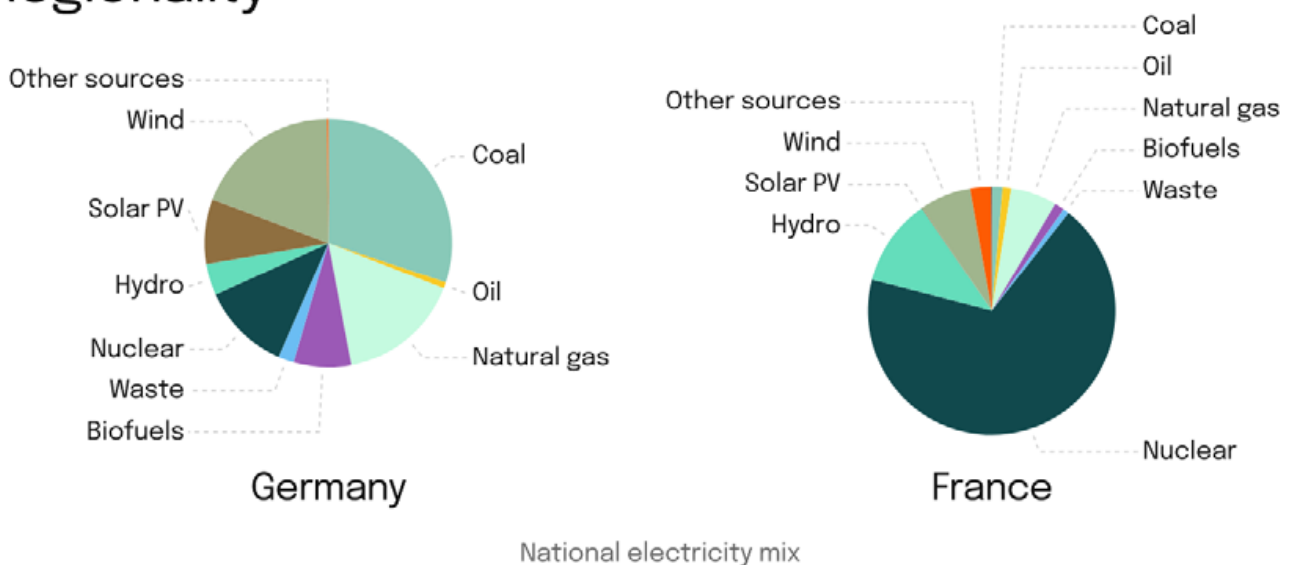
WHAT DOES A CO2 CALCULATOR ACTUALLY DO?

You usually tick box, enter values and get a result. But how does it work? The CO2 calculator basically multiply your data (indirect measurement or estimation) with an emission factor to give you a CO2 kg equivalent.

The emission factors are freely accessible from governmental institutions and public agencies. These factors are not static, for instance the energy mixes are changing (ex: Germany turning off their nuclear plan). Some factors are also very regional.

CO₂ CALCULATORS

Regionality



Not every carbon calculator you will find on the internet will actually apply to your country. **How can we make it work at EU level then?**

There is no perfect calculator. They sometimes use different methodologies. If we take the examples of a same flight Berlin-Amsterdam, different calculators will give different results, ranging from 108 kg CO₂eq to 180 kg CO₂eq. This is why it is important to keep the same calculator from year to year and treat the results as rough estimations. This is also why you cannot really compare different cultural institutions using different calculators.

Many start-ups pop up to measure the climate impact, most of them are from 2000 euros per year and up.

There are other free solutions, such as the [Creative Climate Tools from Julies' Bicycle](#), well tailor-made for cultural organisations; still it does not include digital emissions such as streaming, but it can be covered

by other tools such as Digital carbon footprint, or regarding catering there is a specific tool to measure the carbon footprint of a meal with the possibility then to multiply by the quantity you have. Sometimes we need our old friend excel to stick together the things we collect. It's not pretty but it works.

There is no perfect CO₂ calculator.



A good calculator:

- Includes sources of emission factors and important assumptions
- Is relatively bug-free
- Is built to stay

More and more clubs and festivals produce their carbon footprint, especially festivals because there is a strong visibility, on waste for instance - while actually there is not much more waste at festivals than home - but it is very visible on the festivals site.

If we look at the pie chart, more often the main categories are **audience mobility**, then energy and waste (which can include material equipment which becomes waste if not re-used).

WHY SHOULD WE EVEN GO THROUGH THE TROUBLE OF CREATING A CO₂ FOOT-PRINT?

It is actually a lot of work and there are clubs and festivals similar to yours, to whom you can relate. It is true that without a CO₂ footprint, you can directly use the time and energy to start implementing measures. It is particularly true for small venues which might not have the capacity to measure their carbon emissions.

The first footprint is the hardest, but then it enables you to test every year the impact of the actions you are implementing. It can be also good for negotiations with local public transport provider, or government to access funding. The whole process can help better understand your activities better.

Ex: an artists' collective once did their carbon footprint. They were already implementing a lot of actions and they thought that they had to improve their waste management because they had a lot of material for their art work, and all these were very visible. When they did their carbon footprint, they actually realised they had an old oil heating in the building's basement representing 80% of their carbon footprint, and never had really thought about it before.

LE PÉRISCOPE, LYON, FRANCE AND FOOTPRINTS PROJECT

Le Périscope is situated in Lyon in France (big city) and organised 98 concerts, with 12 000 visitors. Le Périscope is not only a concert venue, it also has creation studios, host residencies and organise other social and cultural activities.

The [Footprints project](#) is an EU funded project (Creative Europe) about how to make music more sustainable across Europe. The first years of the project focused on how to make more sustainable tours (including the ecological aspects but also social and economic impacts). 12 agents and artists were involved through 6 artistic (jazz) music scenes.

The first part of the project was based on calculation and the second part on experimentation. The study was based on 4 venues and 5 festivals with a mix of small/big ones, rural/urban gave general carbon calculation results. [You can find the results here.](#)

The project relied on Julies Bicycle tool but it was difficult to make such a work years ago because it was still a pilot. Finally, Le PÉRISCOPE worked with a local-based calculator called “We Count” because they offered a main calculator as well as a working group/class to connect different people with different backgrounds to train every week on understanding your numbers. Filling up the carbon tool took them 3 months, and it was important to have a support team behind. The tool also offers “path” to reduce your carbon footprint based on global agreements (-1;5°C) Everyone in the team had to be involved in the carbon footprint because you need information from all the different departments (administration, communication etc) and it is very time consuming for all. The capacity to fill-in carbon tools relies more on the team capacity than the budget, as there are more and more affordable or free tools.

Still, in Le PÉRISCOPE it was necessary to do it collectively in the team to engage also the ones who are less committed in ecological transition, especially to work on the afterwards. If you implement actions, such as turning your catering offer into 100% veggie, without having done the whole process with your whole team, you will get resistances.

Le PÉRISCOPE drafted its climate strategy based on the results and the trajectory. How to monitor these evolutions, without reproducing its carbon footprint every year, which is very demanding?

The team then worked on a **carbon budget**. It is an excel sheet, and it works as a financial budget but CO2 tons replaces euros. Indeed, the results of the carbon footprint of Le PÉRISCOPE demonstrated that most of their impact was on artists mobility. Indeed, the venue is based in the city centre with public transport and very expensive carparks so the audience mobility was less important.

The objective of Le PÉRISCOPE is to reduce by 30% their artistic mobility impact until 2030. Each year, they will reduce it by 3%.

The carbon budget is a simple tool. When adding the dates, the number of people travelling with their transport mode and where they come from, the calculation starts. The most difficult indicator was to decide “which part of the touring relies on Le PÉRISCOPE?”

Ex: if a band organises a European tour from Australia. They could have only counted their impact between the previous (Paris) and next (Geneva) dates but they decided to calculate the total impact of the tour of each band and divide it by the number of dates they have.

Date	Groupe	Jeune Public	Nbr Origine Lyon	Nbr Origine France	Nbr Origine International	Moyen de déplacement	Provenance	Nbr de pers.	Diviseur/Nbr d'arrêt sur la tournée	Moyen	km total	km total pris en compte PÉRISCOPE	Moyen	km total	km total pris en compte PÉRISCOPE	Moyen
30/09/22	Tortuga Aladin	1			3	Avion	Etats-Unis	3	6	Voiture	310	155	Train	216	108	Avion long courrier
11/01/23	CYRIL CYRIL	0	0	0	3	Voiture	Genève, Suisse	3	1	Voiture	304	912	Train		0	Avion long courrier
13/01/23	PIERRE BASTIEN	0	0	0	1	Voiture, Avion, Train	Rotterdam, Pays-Bas	1	2	Voiture	15	7,5	Train	120	60	Avion long courrier
18/01/23	SCOOF	0	0	0	4	Voiture	Lucerne, Suisse	4	1	Voiture	842	3368	Train		0	Avion long courrier
21/01/23	20 ANS DE MODERN CITY	0	18	4	0	Voiture	Lyon & Paris, France	4	1	Voiture	500	2000	Train		0	Avion long courrier
24/01/23	THE BRIDGE 2.9	0	0	2	0	Voiture	Paris, France	2	15	Voiture	6814	908,5333333	Train		0	Avion long courrier
		0	0	0	2	Voiture, Avion	Chicago, Etats-Unis	2	15	Voiture	6814	908,5333333	Train		0	Avion long courrier
28/01/23	SOLAR SHIP	0	0	4	0	Voiture	Clemont-Ferrand, France	4	1	Voiture	334	1336	Train		0	Avion long courrier
27/01/23	CONCERTO POUR SOKOU	0	0	4	0	Voiture, Avion	Paris, France	5	7	Voiture	2406	1718,571429	Train		0	Avion long courrier
		0	0	0	1	Voiture, Avion	Bamako, Mali	1	7	Voiture		0	Train		0	Avion long courrier
28/01/23	FORUM DES PAYSAGISTES SONORES	0	3	3	0	Train	Paris, France	6	1	Voiture		0	Train		0	Avion long courrier
31/01/23	MICHEL FERNANDEZ QUARTET	0	2	2	0	Voiture	Lyon, Châteaubleu, Aboussière, France	2	1	Voiture	514	1028	Train		0	Avion long courrier
01/02/23	YENI GAYDA	0	3	1	0	Train	Cousance, France	1	1	Voiture		0	Train	200	200	Avion long courrier
02/02/23	TRIO MOONDOG	0	1	2	0	Voiture	Saint-Etienne & Vienne, France	2	1	Voiture	192	384	Train		0	Avion long courrier
08/02/23	SILLONS [JP]	1	2	0	0		Lyon, France			Voiture		#DIV/0!	Train		#DIV/0!	Avion long courrier
09/02/23	IBRAHIMA CISSOKHO	0	6	0	0		Lyon, France			Voiture		#DIV/0!	Train		#DIV/0!	Avion long courrier
10/02/23	SAMPLING IS BEAUTIFUL	0	5	0	0		Lyon, France			Voiture		#DIV/0!	Train		#DIV/0!	Avion long courrier
13/02/23	CINE CONCERT LUMINA	1	0	2	0	Voiture	Grenoble, France	2	1	Voiture	130	260	Train		0	Avion long courrier
15/02/23	KCIDY	0	4	1	0	Voiture	Lyon & Saint-Germain Laval, France	5	6	Voiture	2076	1790	Train		0	Avion long courrier

In that sense, it is still “possible” to book international bands, but the bookers will have to work more closely with each other’s’ to add touring dates in order to reduce the carbon impact of each date, and develop more residencies and local actions. One of the main focus of Le PÉRISCOPE relies on an innovative music and relies on an international booking so the idea is not to transform their programming, but to challenge it.

So far, the changes cost more money to Le PÉRISCOPE because booking train tickets rather than flight tickets is more expensive; but they can use their data to apply to more public funding. But that’s also the condition to stay relevant in the future, not lose credibility and audience.

BUDGET CARBONE						
SUIVI DE L'ANNÉE EN COURS						
	Total long courrier	Total moyen courrier	Total court courrier	Total route	Total train	Total
Kilomètres parcourus	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Facteur d'émission (tonnes de co2/km)	0.152	0.187	0.258	0.193	0,00173	
Emissions CO2 (en tonnes)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
OBJECTIF MAX 2022						
	Total long courrier	Total moyen courrier	Total court courrier	Total route	Total train	Total
Kilomètres parcourus	34361,25	16758	0	11111,24	36078,7	98309,19
Facteur d'émission (tonnes de co2/km)	0.152	0.187	0.258	0.193	0,00173	
Emissions Carbone (en tonnes)	5,22291	3,133746	0	2,14446932	0,062416151	20,26475303
ANNÉE DE REFERENCE (2019)						
	Total long courrier	Total moyen courrier	Total court courrier	Total route	Total train	Total
Kilomètres parcourus	70125	34200	0	22676	73630	200631
Facteur d'émission (tonnes de co2/km)	0.152	0.187	0.258	0.193	0,00173	
Emissions Carbone (en tonnes)	10,659	6,3954	0	4,376468	0,1273799	21,5582479
OBJECTIF 2030						
	Total long courrier	Total moyencourrier	Total court courrier	Total route	Total train	Total
Kilomètres parcourus	49087,5	23940	0	15873,2	51541	140441,7
Facteur d'émission (tonnes de co2/km)	0.152	0.187	0.258	0.193	0,00173	
Emissions Carbone (en tonnes)	7,4613	4,47678	0	3,0635276	0,08916593	15,09077353

DANSK LIVE, DENMARK

Since March 2022, the carbon calculator is basically an excel spreadsheet as simple as possible to get people starting the process. The position of Dansk Live includes venues and festivals and the tool is for both. The carbon calculator enables them to make an assessment and develop carbon budgets, which is a very efficient tool to lower your emission.

DANSK LIVE
Klimaberegner

Klimaberegner

Dansk Live

Velkommen til vores fælles klimaberegner. Klimaberegneren er et værktøj til at give hurtigt overblik over klima- og ressourcebelastningen fra en festival, et spillested eller en koncertarrangør. Værktøjet er opbygget så simpelt som muligt, og alle beregninger er baseret på officielle gennemsnitstal. For at undgå for mange forbehold men samtidig give nogle konkrete svar er alle omregningsfaktorer forklaret på sidste side. Ud over CO2-tal fra energi og transport lægger klimaberegneren også op til at måle på affaldssorteringsprocent og vandforbrug. Nogle tal kan udfyldes inden eventet, andre efter. Der er lagt vægt på ikke at skulle måle på for meget under eventet, hvor afvikling ofte tager al tid.

Klimaberegneren medregner scope 1 og 2, men ikke scope 3 emissioner (jf. GHG Protocol). Vær opmærksom på, at klimaberegneren ikke giver endelige, præcise og 100% nøjagtige tal, for det vil kræve alt for meget dokumentationsarbejde. Husk også at bæredygtighed handler om andet og mere end CO2 og klima.

The tool is in Danish, but is available to all Live DMA members and translation should not be too complicated. The emission factor is based on European averages. The tool is much inspired by the tools created by Julies' Bicycle.

To walk through the tool, there is a user's guide and there are 4 categories: You can use the tool on a yearly or monthly basis.

- **Garbage:** in Denmark, as companies pay per tons of garbage, you can indicate it from your bills but you have to make a distinction between garbage that can be recycled or not. The tool provides a result of garbage/visitor which is an interesting indicator.
- **Water:** an average of water used per person per day. In Denmark, water is not a resource issue but still important to preserve it.
- **Transport:** just for internal transportation in cars. The main emission difficulty is really the audience mobility, especially at festivals. When focusing on things you can really change (things you have power on) in your organisation, changing the way your audience decided to travel is really tricky. concertpooling.be
- **Energy:** the calculator does not include diesel numbers but only gas, it is part of the work in progress. But if you use alternative forms of energy (bio fuel or heating) it can be included.

There were very few questions on the calculator which means that it should be quite easy to use. It is based on excel to make it really functional without a very high number of details.

Originally, the initiative comes from the board of Dansk Live. One of the Dansk Live members shared a very detailed report on energy consumption which really helped to change the mind of Dansk Live peers. There are also gaps in terms of awareness between the Danish members, that is why the tool is also very pedagogical. It is more like an awareness tool than a very technical tool.

The final objective would be that all venues and festivals in Dansk Live use the tool to benchmark the results, but there are gaps between big festivals that can afford more precise tools and smaller venues. Benchmarking may turn into competitive while it is actually difficult to compare with same indicators. Things are evolving and we can hope that more teams will use it. It is still a challenge for teams to collect this data and it is a long-term project. The tool is like a "soft whip". There were 20 participants during the first year and Esben expects that the number will grow in the upcoming 3 years. **What is expected is also the capacity to demonstrate a drop-in carbon emission in venues and festivals to politicians thanks to a baseline measure, as there are new incentives in Denmark and funding for "green culture"** with a group of cultural peers' organisations (theatres, museums, libraries etc).

The rise in energy prices last year, on a sad background with the war, actually pushed the members to have a look at their energy consumption and management.

The report then give totals per person per day, to make strategic choices and monitor the evolutions over the years.

The most relevant is probably to use indicators per visitor. In Le Périscope, it didn't work as the venue is also organising other activities (concerts is only 30% of the activities). Dividing it by the number of paid musicians was more relevant.

SPEAKERS



HICHEM EL GARRACH

Hichem started working in the music industry organising concerts for the French label Spidart. Fulfilling missions such as dry toilet worker, on-site technician, events organiser, environmental manager, runner, team leader, logistics manager, catering cook and many more, he discovered an active solidarity in event production. Today, in charge of development at Cagibig, Hichem uses this experience to develop even more solidarity and ecology in this sector of activity, especially in terms of technical equipment mutualisation.



SUSANNA HULKKONEN

Susanna works as an executive director at LiveFIN, an organization running the common interests of live music private sector in Finland: event organizers including venues, clubs, festivals and concert producers, as well as agencies and managers. Before, Susanna worked in Flow Festival's communications for over eleven years. LiveFIN participated in the creation of ELMA.live, a digital sustainability platform tailored specifically for the live music sector, together with the Finnish Jazz Federation. Elma is based on the UN's 17 Sustainable Development Goals.



CÉDRIC CLAQUIN

Label manager during a decade, co-founder of the national french indie label federation CD1D and of the first fair-trade streaming platform Divercities, Cedric Claquin is passionate for alternative models, collaborative economy and new forms of innovation. Involved in ecological transition of the sector for several years, he's contributing to develop the collective SO WATT aiming at reducing energetic pressure in cultural sector.



TIM WAGENDORP

After working as an environmental scientist and policy expert for a federation of reuse companies, Tim Wagendorp has been the sustainability coordinator at the VAF since March 2017. "My main focus is on VAF-supported film and media productions, but I also raise awareness at other VAF-related areas like at physical cinemas, during the screenwriting process, games, animation and in education. We use the Sustainable Development Goals as a moral compass for our work."

The objectives of the sessions were to introduce existing solutions in different areas related to live music venues management, to provide inspiring solutions. They do exist! Tim shares: «It could be a step forward for all of us. There is a lot of information, and maybe even too much information available, so the important thing nowadays is to create synergies all together.»

VAF is a public fund supporting film makers, from TV series, documentaries, animation, also games and podcasts, and even Instagram fiction series. It basically supports everything on screen.

WHAT IS SUSTAINABILITY?

The Sustainable Development Goals are a good reference offering a broad scope, with climate change as one of the major priorities. As a public institution, [VAF](#) has a role to play and also works on equity and well-being. All these topics are embedded to each other, and Tim has to work on different levels of the value chain, from education to writing: what's the message when Superman drinks water in a single use plastic bottle? It goes along with screen representations, and VAF's work to inspire writers to go beyond stereotypes and turn it into a motivation for creativity, not a limitation.

Since 2013, a fund (10% of support to production) is only delivered on formal obligations which include a sustainability roadmap. One of the tools used is EUREKA, an online calculator with European parameters and benchmark differences (Ex: visualize what is the difference between veggie or not veggie catering on set). It also helps to see the impact of the measures; and it's a free tool. This is important as a few years ago, a team made their best to have the film set locally to avoid technicians' trucks, they had veggie food, renewable supplies, but they had to go to Morocco for three days and it ruined the whole impact they had done during the production phase. Travelling and international scale of projects is complicated and it is also linked to budget, the funding system Ex: if you apply to VAF you will have to shoot part of your movie in Flanders and often, filmmakers get money from different public funds.

The Flemish audio-visual market is quite small because of the language barrier. The impact of one film production is equivalent to 10 families in a year (73 tons), while in England it's x10 and USA it is x100. Of course, the biggest is the production, the biggest is the challenge.

In general, the main emissions from movie sets are traveling (40%) and waste (28%). Recycling or re-use (second hand materials) are two important dimensions in waste management, it is still a big challenge to recycle so the first thing to do is reduce production.

What is your societal rate in matters of sustainability? People watch our contents, we can make them cry or laugh or sad or happy. Let's not underestimate the impact of culture on ecology.



SO WATT (PROTOTYPE) - EXPERIMENTING NEW SOLUTIONS ABOUT ENERGETIC CONSUMPTION IN LIVE MUSIC.

The main carbon emission for live music venues is mobility, food and then energy. When starting to work on [SO WATT](#) in 2021, energy was not yet priority for the live music sector but since then, with the inflation crisis, it became a hot topic because it has a big impact on the budget and not only on environment.

What is energy about? What consumptions means? What is power? The first step of the project was to create a tool to measure the «electrical needs» of the venues. Everybody is wishing to «reduce». But reduce what and how?

SO WATT produces and develops 3 solutions:

- A free online consumption simulator to support the staff to estimate the “needs” of their events (available from sept 2023).
- Data loggers measure points to give on-time information as well as post-events advice for a soberer equipment. For example, a recent experimentation in a festival in Lyon (FR) demonstrated that 50% of the entire festivals’ consumption was made during 2 hours of one of the artists’ show by specific lights. The artist did not know it was so consuming of course. The more data loggers you have (festivals), the more it costs, but when you have a venue, the system is quite simple.
- Training programs about sobriety in energetic consumption.

It implies also changes in the organisation and programming of an event. For instance, developing a festival with only solar energy means that it is not possible to have all the usual light equipment on stage. But as Cédric believes that the 20.000+ big scale events will probably not be relevant in the years to come, he advises: “it is vital for our organisations to adapt to changes before we are forced to, and to train people about it.”

SO WATT also aims at sharing the data (anonymously) and experiences and inscribe itself into general interest initiative because it is an emergency shift for the sector. The project involves 3 partners: an engineer school (Ecole Centrale de Lyon), a booking event and a production company as well as professionals of alternative and solar initiatives.

ELMA LIVE – A PLATFORM FOR SUSTAINABILITY IN LIVE MUSIC

[ELMA LIVE](#) is funded by the Ministry of Culture under the NextGeneration EU recovery instrument.

In 2020, during the pandemic, live music associations joined forces to create a toolkit in order to create communication and education strategies to encourage music producers to adopt more environmental-friendly practices.

There are 6 partners: LiveFin is one of them, representing 70 live music venues, festivals and promoters. In 2021, the live music associations worked on a report to provide a basis for carbon footprint calculation for the music industry. In 2022, it was included into an educational and information platform. ELMA live is a browser-based platform composed of 3 core areas:

- **ROADMAP**

It is based on the SDGs and relates to ecological, social and economic sustainability. When creating a roadmap, users can add themes from the SDGs and date objectives and insert a description of the plan with some tasks. Users can export it as a PDF and share it with their team. There are also examples/templates to re-use in the platform.

- **TRAINING** (educational material)

It contains freely available information and material on how to adapt SDGs, focused on live music industry and how to advance the fulfilment of the goals. These are like lessons users can go through, with tasks and videos packages. For example, there is a video about sustainable catering. ELMA platform owns all the videos that were created especially for this platform.

- **FORUM** (community)

Here users can potentially share their own material (ex: if you have your own project) so others can see what you are doing.

At the moment, ELMA Platform is open to partnerships to translate the platform and make it available across countries and different live venues or industries. Want to know more about it? [Watch the Digital Safari here!](#)

CAGIBIG – EQUIPMENT MUTUALISATION TO SAVE NATURAL RESOURCES AND CREATE ADDED VALUE TO KEEP JOBS AND ACTIVITIES

In 2001, French technicians started exchange of equipment in the festival area. In 2011, an official organisation was created to buy equipment and store it collectively (Big foot production). In 2015, the association became [CAGIBIG](#) as a first pool of logistic material (technical shop) with a support function (logistic department). CAGIBIG is developing an economic model (2019) and integrates a significant number of events and organisations (75% is connected to the cultural sector but also business, humanitarian and political events). Since 2019, the activity is growing, especially during the summer with the festivals season.

Experimentations at different scales all have demonstrate that mutualisation can have a real impact of saving natural resource while increasing the profitability of events. Mutualisation is based on the partition of ownership. In terms of mutualisation, ownership is considered to be collective, even if legally it is still difficult to formulate. The financial contribution of the users decreases from years to years while the volume of equipment used year after year increases.

- The movie industry also has experience in equipment mutualisation and prioritize sustainable products. The French Cinema Center played an important role pushing the film industry to support these kinds of initiatives –

Cagibig develops shared storehouses, as well as a digital platform to give access to the catalog of equipment, which can select according to a geographical area and needs. The platform hosts a calendar to plan the needs. The catalog includes equipment shared by members of the community as well as collective investments. It ranges from practical equipment (fridges, tents, stands, dustbins...) to accessibility equipment (platforms, headphones) sanitary equipment (anti-bacterial dispenser)...

LAST WORD

When can we say when something is sustainable? Everything has an impact, as long as we produce something, it will have a carbon impact. In that sense, carbon neutrality is a dream. So, is it about measuring and reducing your impact? Is it about obligation, certification and control?

For Tim, a project is sustainable when you answer yes to the three following points:

- Am I really aware of my impact on the environment?
- Do I have a plan to limit my impact on the environment?
- Am I sharing my learnings and experience with others ?

Battles can be different between projects and countries, but the process is the same. Tim works with University of Leuven and there are often opportunities to connect some thesis with your organisations, on scientific topics (PhD scientists) or economical ones. Ex: a master thesis about costs and benefits of sustainability in terms of euros and co2.

The meeting ended on an exchange about expertise and training. How to train people on sustainability? Who should become an eco-specialist? Someone with power in a team, someone internal or external? In Berlin, there is an on-going project to develop “sustainability managers”. With the support of the Ministry of Culture and Media, the Clubkombinat Hamburg e.V. has launched the Futurefunding programm to help clubs to make their operation more climate-friendly. Specifically, the clubs will receive a personnel grant of 700 euros per month for the appointment of sustainability and transformation manager. The initiative also goes back to the Code of Conduct “Celebrating the Future”. This is a voluntary commitment developed by the Clubtopia initiative for a sustainable club culture. Currently, the concept includes eight fields of action (energy, mobility, resources, waste, communication, compensation, social) [More info here.](#)

SESSION 5

Sustainable touring, audience and artists' mobility: «We have to be sometimes radical, if we want success»

SPEAKERS



CHRIS JONES

Chris Jones is a research fellow at the University of Manchester, dedicated to research areas of accelerating Social Transitions and Reaching Zero Emissions.

Chris is working on a variety of projects for Tyndall Manchester (Climate Change Research), that help to transfer research from the group into policy, industry and community applications. Recent projects include developing an online resource for any local area in the UK to produce a carbon budget and work with Manchester City Council to support their 2020 climate change policy framework.



MARIE FOL

Marie Fol is lead of Keychange, the global movement for gender equity in the music industry. Fierce advocate of international cultural collaboration, Marie

operates as cultural manager, expert and researcher in the arts, culture & creative sector at European and international level. She has co-authored publications on funding needs for cultural mobility as well as on a mapping of mobility funding for music in Europe. Marie is Company Director of Res Artis, international network of artist residencies and is strongly involved with On the Move the international network for cultural mobility (Board Member 2017-2020, President 2020-2023).



BORIS PICQ

Boris Picq, jazz drummer, member of the Jarring Effects label, distribution manager at SPRWD [Spread The Word], deputy president at MDE - Music

Declares Emergency, co-founder of Gilles Peterson Worldwide Festival (Sète France - Leysin Switzerland- Singapore - Asia), co-founder of the Moga Festival (Essaouira - Morocco), co-founder of the Shapes Festival.

Circulation of artists & audience development and engagement are at the core of the EU policies for culture. Many programmes have been implemented at EU level in the last few years to support cross-border mobility (be it sector wide with [Culture Moves Europe](#), or sector-specific with [Perform Europe](#) in the performing arts). Within the music sector, mobility is a complex topic on its own, as highlighted in the [conclusions](#) of the dedicated Working Group of One Voice for European Music (2021). However, challenges in the music sector revolve primarily around funding, data collection, and harmonization of legal, administrative, and financial practices relating to mobility.

Mobility in the culture and creative sectors is therefore understood as a cornerstone of European identity and cultural diversity, which is one reason why the EU Green Deal does not include the creative and cultural sectors and industries in its scope. However, many programmes (including Creative Europe) have a cross-cutting objective on environmental sustainability ... and when considering the impact of transport in greenhouse gas emissions (1/4 of the EU emissions are due to transport, including road, aviation, maritime and rail), it is fair to ask oneself if «**mobility [is] in tune with sustainability standards?**», as suggested in the Pearle & EFA [Ultimate Cookbook for Cultural Managers: The EU Green Deal & Live Performance Organisations \(2023\)](#) - and more specifically with an eye on the mobility of artists (and crews, equipment, etc) and the mobility of audiences (to venues or festivals).

LiveDMA invited two guests to present examples of how artists, promoters and music organisations have started to engage with the topic of environmental sustainability, mobility and touring.

Dr Christopher Jones (UK), of the Tyndall Centre for Climate Change Research presented the [work realized with Massive Attack](#) that lead to the [Roadmap to Super Low Carbon Live Music \(2021\)](#). While Massive Attack's tour could not happen due to Covid, the Tyndall Centre managed to gather data on itinerary and equipment and provide realistic estimates of the carbon footprint of a tour and how to best reduce it (switching mode of travel to train and coach, optimizing route, reducing equipment moved on tour). While studying that tour, they realized also that audience travel was a key area for reducing impact despite lacking data around travel to festival (benchmarking was done with estimates of parking space provided at festival). The Tyndall Centre's research led to some policy and advocacy work at UK level (ACT 1.5 terms of festival, presentations at UK parliament, etc), however it was noted that there is still a lot of work needed with local policymakers to implement solutions (only [Liverpool](#) has committed to local actions relating to ACT 1.5 measures).

Boris Picq (FR), member of Music Declares Emergency in France, presented the work of Music Declares, as well as the new regional initiative they are developing with Collectif des Festivals, DJs for Climate Action, and Technopol: [Courts Circuits Artistiques](#) (see here [English brochure](#)). While this project is still in its testing phase, the idea is to remove the exclusivity clause, share resources and test booking scenarios where more local, regional and national artists are booked, and less from outside of Europe. While this initiative is still being developed at the moment, Boris also shared about his own experience working with artists: mobility choices and routes are decided by the artists themselves and not left to be decided by the venues/festivals. This allows the artists to have contrai over sustainable modes of travel, slower mobility, and other choices that are therefore not part of the artists' tee or negotiation.

The participants raised questions on communication, awareness raising towards audience, role and impact of artists vs other actors (promoters, venues, networks), monopoly of large actors vs smaller venues, reluctance of public transport companies in certain regions of Europe.

The initiative of [Crowd Impact](#) was briefly introduced too, as a new pilot app to help track the impact of the mobility of audiences, on which the sector often lacks data. Crowd impact to track audience travel emissions with automatic solution that you can implement in queues for instance. This application aims at giving information to cultural institutions and festivals to make choices for instance, analysing groups of drivers from same cities to set up shuttles from these cities.

Beyond data collection, for **audiences' mobility**, suggestions were discussed to explore partnerships with local public transport to be included in the concert/festival's ticket price (as it is done for Ancienne Belgique

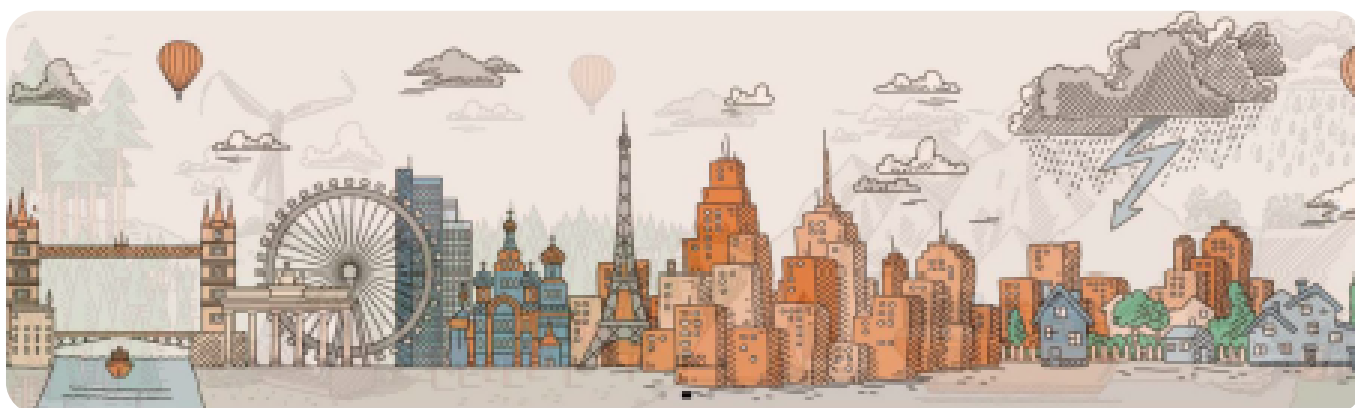
in Brussels, or for Reeperbahn Festival in Hamburg), as well as exploring cooperation with other venues in the region to reduce regional mobility of audiences (cf. [DEMO project](#) as well as Courts Circuits Artistiques). Challenges mentioned during the session related to audience's safety after gigs end (no public transport after 11pm in some areas, no proper bike infrastructure or particularly unsafe at night), infrastructural imbalances (inequalities on European territory, reinforcing the fact that some audiences are staying behind, especially in peripheries).

For **artists' mobility**, the need to benchmark and to measure the actual footprint was brought up. Ideas to explore regional cooperation, as well as slow mobility and other means of transportation were explored. Challenges related to **booking collaboratively** were discussed, which has to work for venues and is not a standard practice in the music industry. Though Boris for instance saw the potential that artists have themselves to influence booking decisions (if they talk with venues and promoters and request to 1/ remove exclusivity clause and 2/ tour regionally in smaller capacity venues rather than in 1 big venue). The financial impact of short circuits and new forms of touring was discussed and is not an easy topic, but as was mentioned: «We have to be sometimes radical, if we want success with this kind of ideas.»

DETAILED CONVERSATION OF THE SESSION

As we know, mobility has a massive impact on carbon footprints in the field of live music. In PEARLE Ultimate cookbook for cultural managers on the Green Deal, the question of mobility is questioned as transport is one of the aspects to work on, cutting its gaz emissions without limiting circulation of goods and people. Supporting mobility of artists and cultural diversity through the mobility is a cornerstone of European inter-culture.

There is a tension between the two, even in the policy framework. For this session, what kind of challenges are faced by venues regarding artists and audience mobility? What kind of ideas have been tested to limit the impact of both artists and audience mobility?



CHRISTOPHER JONES, TYNDALL CENTER CLIMATE CHANGE

Mobility around live music is an area that interest them for years and is an important area to be discussing. Chris works in in Manchester for climate change research. It's a multidisciplinary research group founded in 2000 researching from fundamental science, emissions reduction, climate impact, risks, adaptation to public perceptions of climate change, governance of climate negotiations and policy making. In this context, around 2019, they were approached by Massive Attack to look at options to decarbonise their live music tour. They shared some data about European tour that should have happened in 2020 - but did not happen - but there was enough information to design a roadmap that could be applied, not only to Massive Attack but similar tour or music industry. Evidence of this work was communicated to the UK Parliament.

Following this, the lab focused on audience travel, who was identified as a key area for intervention, and how licensing conditions (terms music festivals operate under) could be changed to better reflect the emergency and requirement to change mobility around live music.

The initial work they did was to calculate the emission of Massive Attack tour with projections if switching the transportation models (flight/train/drive/mix). Already within that, we can see an advantage to prefer train or drive option. The second step was to look at routes optimisation. **The booking strategies of live music venues and festivals depends on multiple factors but route optimisation is not one of these factors.** His colleagues developed an algorithm about route optimisation to demonstrate some savings around this: less emissions, less journey time and trains options being more viable. Then the third step was to look at reducing the equipment, which can produce significant savings in carbon emissions. Massive Attack has 4 to 5 trucks on the road for their show, some artists have 30, so it is a factor that can easily scale up if artists do not use local equipment or decide to downsize their equipment.

All these recommendations and the work done on venues' energy was summarized in the «**super-low carbon live music**» roadmap. The next 10 years represent a critical period for climate change action. If these steps aren't taken in this period, we will miss the opportunity to avoid dangerous climate change. These are the things to be done during this critical decade, which is actually 6 years and half left now. So it's all about pushing things to be done quickly and impactfully.

Audience travel can be considered as an external contribution but it is integral because if the festival was not there, people would not travel there. It led to another piece of work to quantify and better understand how changing transport mode, particularly from cars to public transports, with the project ACT1.5. This work does not consider flights from other countries or other parts of the UK. The local authorities and planning departments responsible of licensing the festivals did not have any information about how many cars and the percentage of people travelling by car to the festival, and the festival themselves were not able (or did not want) to give this information. The festivals showed an interest in the roadmap but accessing information is a different challenge. Same goes with the information about flights; ticketing platform know from where the tickets are bought, but they are not willing to share this information so it was too difficult for the research team to make good estimations in the number of people travelling by plane to the festivals.

They worked on scenarios with the roadmap just to show the different results based on different share of transportation. So the team focused on cars and did a mapping of the parking area of the festival (with Google map) to have a good estimation of the number of cars you can park in this area, and cross the information with public data. They worked on assumption on the number of people in each car and which distance they are driving from. It gave a kind of benchmark of the festivals, to correlate with initiatives they are taking or not on transportation (coach tickets partnerships, free or cheap shuttle tickets from train stations, separate car parking fee, cycling storage or infrastructure, reference to low carbon travel in the communication, promotion of carpooling) to provide recommendations.

These recommendations were used to produce a new model of license conditions, as a new code for local authorities and adopt these targets. Part of the roadmap process was built on roundtables with the music industry. Public transports in UK usually stop around 23.00 at night, it can be an issue when shows end, even though concerts try to adapt their schedule to the last ride. The second challenges is safety.

The recommendations were launched in February 2023 and the discussions are going on to have these conditions being adopted. Only one local authority has publicly adopted the code so far and hopefully this year a proper test will happen.

BORIS PICQ, MUSIC DECLARES EMERGENCY

Boris is a festival promoter and artists touring, co-president of Music Declares Emergency France. MDE is a group of artists, music professionals and organisations who declare emergency and call on a governmental response and systemic changes. MDE exists in several countries, in France they decided to experiment new touring models based on the principle of «shortcircuits», together with Technopol {electronic music scene} and a festival collective (about 30 festivals in Bretagne). These festivals share equipment, refuse exclusivity contracts and test the short-circuit scenario. The short-circuit experimentation will start in summer 2023 with low carbon transportation mode, «limited» fees for headliners, local artists easier access to events.

With this plan, it is possible to reduce by 25% carbon emission of artists mobility without changing the programming.

Several scenarios are possible:

- 1 - geographical origin is not a criterion for programming, and nothing is done to facilitate low carbon emissions transportation. This is the current model.
- 2 - no geographical criteria but actions on the transportation modes.
- 3 - both attention on geographical criteria (limit international artists) and transportation modes.

Between scenario 1 and 2, we can observe a reduction of 25% of CO2. The scenario 3 offers a 60% reduction of CO2. This project also impacts the artist's booking strategies: based on 60 artists dates, now the booking agency will target 6 regions of France with 10 gigs.

Collective programming raises challenges: how to agree on the artists to programme? In Boris' opinion, bookers are not the ones who will change things. If artists say «I want to tour like this or I won't tour», then artists can make a difference. For instance, Fakear artist asked his record company to stop manufacturing products in China, and he spoke to his touring agency and asked to change the way of touring. He was OK to take the plane 3 times per year, for instance from Paris to Mexico, but in this case he wants to stay there for a while and have at least 10 gigs in South America.

There is no financial impact, negative or positive for the artists, as long as they are doing enough gigs per year, but the, the financial impact for the venues is more complicated. The experimentation aims at identifying those obstacles. Let's also keep in mind that the power relation of artists can differ with their notoriety. How can local artists impose this on their rider? Maybe major artists can, but less for emerging artists. Who bears the costs of slowest transportation? It might mean more costs, train is expensive. Are venues or promoters ready to bear those costs, or is it something on the artists fee and artists get less paid? In the case of Boris' touring agency, they stopped asking venues to pay for the transport. Transport is on the touring agency and promoters, so artists accept to maybe have a lower fee. They decided not to impact the venues. In this way the artists can better decide how they want to travel, whatever the cost is. It fits with the commitment of the artist to take the lead on change.

RESOURCES

- [Live dma resource platform](#)
- [Music Declares Emergency](#)
- [Clean Scene Report 2021](#)
- [Crowd Impact App](#)
- [Julie's Bicycle Music Program](#)
- [European Jazz Network's EU Green Pilot Tours](#)
- [SHIFT Eco Certification for networks](#)
- [Liverpool commitment to Act 1.5, towards Paris Agreement](#)
- [Response of Massive Attack to music industry not acting on green issues \(2021\)](#)
- [Pearle & EFA Ultimate Cookbook for Cultural Managers: the EU Green Deal & Live Performance Organisations \(2023\)](#)
- [The Green Room: founded by Gwen Sharp, focused on environmental and social change in music industry. Many resources & projects](#)
- [DEMO experiences from INTERREG project in music \(FR-BE\) with environmental diagnostic tools + good practices in a.o. mobility \(French only\)](#)
- [Footprints project, with article on carbon accounting at the Periscope, which includes mobility aspects \(artists/up-stream & audiences/downstream\)](#)
- [Zone Franche Mini Convention Climat, 2021 \(results published 2022\): list of concrete propositions for both artists and audiences mobility \(French only\)](#)
- [Report from Forum «Where to Land» at Le Maillon \(Strasbourg\) 2022 with 2 workshops on mobility & sustainability \(artists + audiences\) providing concrete ideas to implement](#)
- [More resources on On The Move website](#)

SESSION 6

What future scenarios for live music in a carbon neutral world?

SPEAKERS



SOLWEIG BARBIER

Solweig Barbier is co-founder and general delegate of Arviva - Living Arts, Sustainable Arts, an association born in 2020 from the observation that live

performance has a major role to play in addressing environmental issues. She was previously administrator of the early music ensemble Correspondances and general secretary of the Grange au Lac, a cultural venue in Évian-Les-Bains.

If the objective of carbon neutrality is more or less shared, the path to achieving it still remains unclear, if not totally unknown. In this participatory workshop, participants explored 4 coherent and contrasting paths developed by ADEME (The French Agency for Ecological Transition) towards carbon neutrality societies, to think about the impacts and evolutions of our jobs and music sector. We split in 4 groups to explore the 4 scenarios and how they will transform the music industry.

In each group, participants had to answer the three following questions:

- What are the main challenges for the live music industry in 2050?
- What kind of jobs would appear or disappear?
- What should we do or advocate for to adapt the music industry to this scenario?

SCENARIO 1: FRUGAL GENERATION - REDUCE OR RE-USE MORE THAN BEFORE

By 2050, making live shows still possible will be a huge challenge, especially to:

- Find alternative power such as hydrogen for technical equipment
- Find low carbon solutions for mobility of artists and audiences
- Ensure audience safety despite heatwaves and floods
- Ensure environmental protection, especially for festivals
- Provide green streaming platforms
- End up meat food trucks
- End up the distribution of useless merchandising

Based on this scenario, we can foresee the following job evolutions:

- Based on transportation reduction, there might be more jobs related to public transportation
- More repair skills needed for the people working in technics and stages
- More environmental coordinators in the field of culture or music in general
- Nature conservators or educators working in relationship with music event organisers

We doubt that major festivals will still exist by then, as they might not be able to meet 2030 carbon objectives and slowly disappear. Regarding opportunities for artists, more collaborations may emerge, also cooperation on touring (pooling resources on shared-tours) and playing more local gigs or residencies or slow touring. This affects the whole business model of an artist, maybe producing more music and less live activities, more unplugged shows and the question of backline (not having the backline travelling with the artists).

Controlling the carbon emissions shall be part of the daily tasks and provide more collaboration/partnerships with local suppliers, create more regional festivals and new ways of events and hosting artists multiple times without becoming boring, dialogue with local transport, inspire audience to act sustainability (food, parking fees).

Participants believe that the probability of happening of this scenario is highly possible. When asked if they feel that promoters and venues already started to implement such measures, they think that only invested venues already implement some kind of these measures. Others only comply with existing rules on waste etc. so maybe there is a need to change the rules.

Existing initiatives can have a snowball effect on others as well. For instance, food can be an easy option to tackle, and events can push people to become vegetarian. Becoming vegetarian can have a huge impact at individual level, but for organisations, mobility is the core challenge. And we shall put the responsibility not only on individual actions but also organisations actions.

SCENARIO 2: REGIONAL COOPERATION - FROM COMPETITIVE SECTOR TO A COLLABORATIVE ONE

By 2050, there must be a huge mind shift regarding mobility and food challenges. Technical requirements must be adapted and compromises must be done by artists on scenography, with less equipment transportation. The artists and teams will have to comply with a vegetarian catering and the use of tap water. The scenario involved more regional gigs, slower tours and train travel, less international gigs, and less technical requirements. Therefore, it also requires a mind shift in audience usually selecting festivals for headliners.

Tour managers or bookers will need new skills on how to organise green touring and we will need equipment coordinators or mutualisation of systems databases.

Transformation managers will appear (being experimented in Germany) to support teams to adapt those changes.

In this scenario, networks will have a stronger position to provide collaborative platforms and dialogue and negotiations, and will have to advocate for more relevant public transportation schemes around venues.

When it comes to managing a music venue, the main issue lays also on the building itself (relying on air condition, you can't open a window). Some possible consequences would be to change the season of programming of live music venues (with inflation costs, some venues closed during one-month last winter). Venues might have other purpose during these period of time (storage...).

Music representatives will have to advocate for a better quality of public transportation, especially timetables and support a mind shift for plant-based diet.

SCENARIO 3: GREEN TECHNOLOGIES

In this scenario you need to be a strong believer in new technologies which was not the case of the participants in this group. How these new technologies will replace fossil energies? Technologies are usually being cumulated, not replaced. It is therefore difficult to project this scenario, if you change a natural landscape and turn it into a music festival, no matter the green, grey or blue energy you use, you will still have the same impact on the biodiversity for instance.

SCENARIO 4: RESTORATION GAMBLE - WHEN THE RICH BECOMES RICHER AND POOR BECOME POORER

In this scenario, artists tend to work more in the entertainment industry to survive. AI compose songs and music, especially for the movie industry. Virtual reality will become a standard that will influence a lot the live music sector.

There is a polarisation of audiences with strong inequalities, between people who can pay to compensate their carbon impact and the ones who cannot.

Other artists and audience will go out of the market with very alternative music scenes, voluntarily run scenes, lots of amateur practices.

Less and less venues will exist, and only big events will resist because they will allow people to earn money.

CONCLUSIONS

It's only 4 scenarios but of course many others could happen and probably a mix of them as well. The most concrete actions to tackle through the different scenario is the vegetarian offer, and the advocacy for regional public transports. On a large scale, we need to include artists and audience in the reflexion to align global recommendations, train the next generation who will work in the cultural sector, and prospect new economic models.