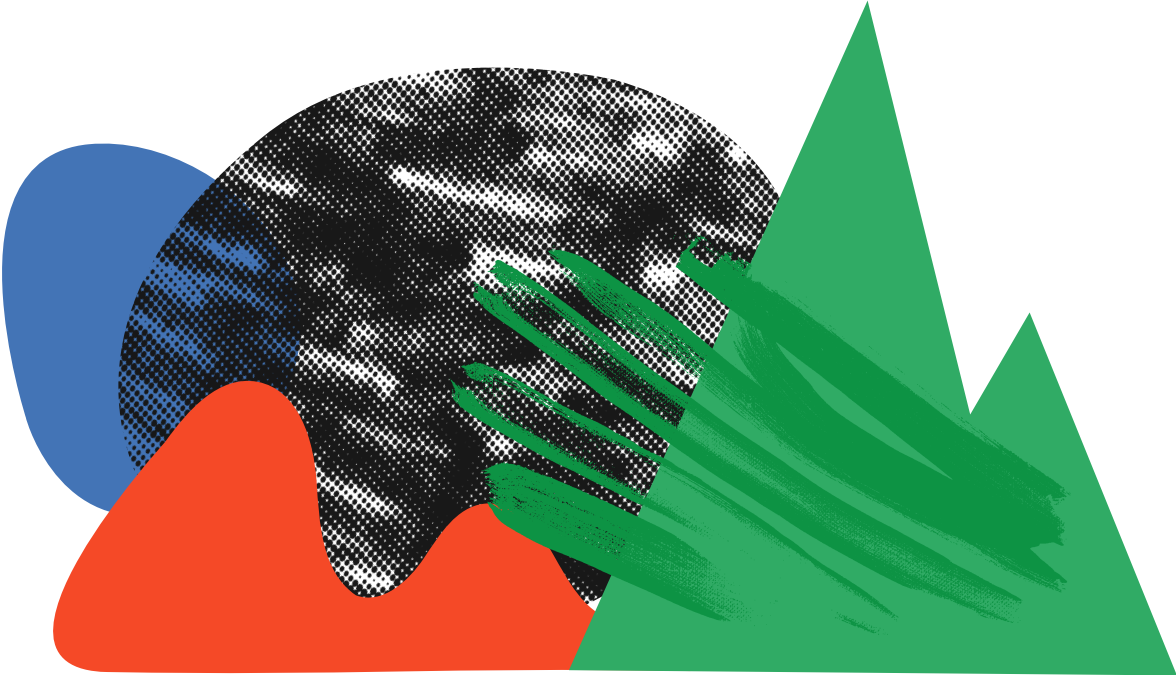


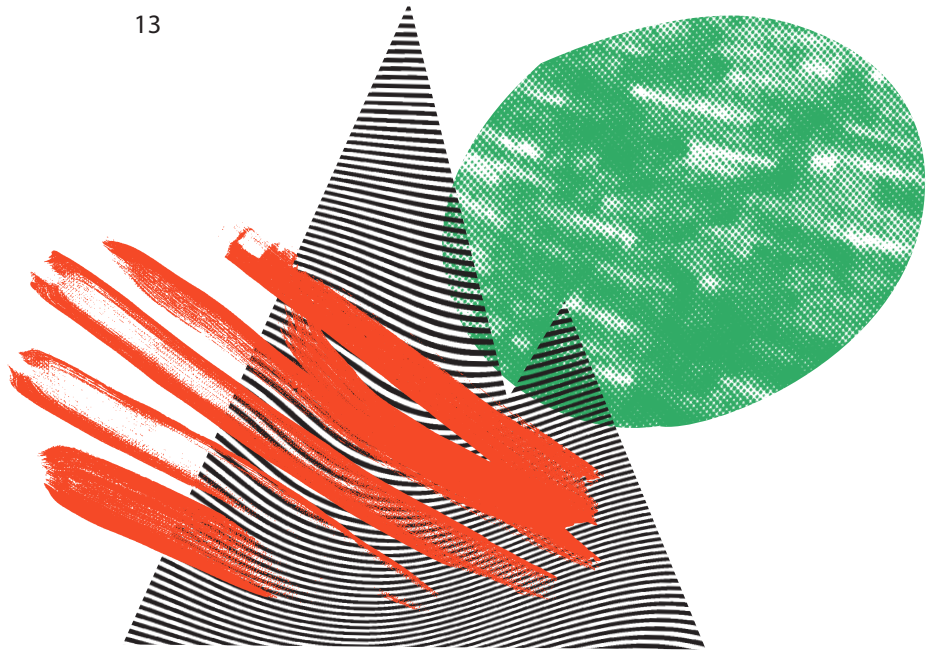
# **Landscape study**

## Audience travel in live music venues



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# Introduction

This *Landscape* study is carried out by Le Périscope and conducted by The Green Room, in partnership with FEDELIMA and the ticketing service SoTicket.

## Partner Overview

### Landscape

Supporting live music in understanding the many challenges surrounding ecological transition, developing shared tools and methodologies to reduce its carbon footprint, and making this work accessible to all actors in the music world: these were the objectives and ambitions that led to the creation of the Landscape project. Conceived, designed, and developed by three organizations (AJC, Bimhuis, Le Périscope), Landscape is supported by France Relance.

### La FEDELIMA

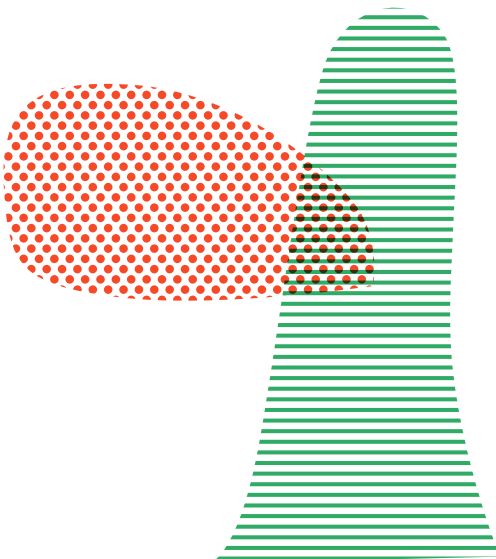
FEDELIMA is a national federation that brings together venues and projects dedicated to live music across France. Its mission is to federate and promote all initiatives of public interest related to live music. FEDELIMA also has a cross-functional role in observation, analysis, and research, contributing to the knowledge of music venues and, more broadly, the cultural sector.

### The Green Room

Since 2016, The Green Room has been working to support environmental and societal change within the music, performing arts, and broader cultural sectors. With environmental issues at the core of its mission, The Green Room positions itself at the intersection of multiple transitions, developing strategies, conducting contextual studies, and co-creating solutions to support cultural professionals as we rethink and adapt our practices together.

### SoTicket

Founded in 2016, the SoCoop cooperative brings together event venues and festivals, a union (SMA), networks (RIF, RIM, La Fracama, Grabuge, Le Pôle, AJC), a federation (FEDELIMA), a partner (Supersoniks), and a regional government body (Clermont Auvergne Métropole). All share a belief in the need for new ticketing models—ones that are more virtuous, more supportive, and more respectful of individual rights. SoTicket operates as a private Cloud-based SaaS, with each ticketing platform functioning autonomously and securely, ensuring exclusive and independent data access for owning organizations. Revenue goes directly to these organizations without any transfer system. Known for its user-friendly design, SoTicket has been continually developed and improved since its inception, to stay aligned with user expectations through a co-construction model. To date, it serves 111 users, 75% of whom are certified SMAC venues.



# General Context

Reducing environmental impacts and adapting to the consequences of climate change have become primary concerns for the music sector since the Covid-crisis. Both the causes—such as the depletion of natural resources—and the increasingly frequent impacts, like extreme weather events, have growing financial, human, and social repercussions. These challenges highlight the sector's vulnerability to climate change and underscore the need for new approaches and practices.

The live music sector, in particular, has taken on these issues by investing in training, organizing discussions and professional events around these topics, and conducting quantitative studies to guide action. Indeed, to implement appropriate, context-specific measures for reducing the sector's emissions and supporting its current and future adaptation, it is essential to go through a phase of precise measurement and in-depth understanding of its impacts. The Landscape study is part of this effort, following earlier studies like [DEMO](#) (2020), [What is the Carbon Impact of Jazz Venues and Festivals?](#) (2022), and [Déclic](#) (2024), led by FEDELIMA and SMA.

## Previous Studies

In 2022, 200,000 live performances were reported, 24% of which were music-related. Nearly 53 million ticket holders (both free and paid) attended these events. Music performances attracted the largest audiences (51%), surpassing theater and related arts<sup>1</sup>. In 2023, live music concerts accounted for 27 million admissions in France<sup>2</sup>.

In 2021, the "Décarbonons la culture!" report by the Shift Project highlighted that "culture and leisure are the third-largest cause of mobility for French people, after commuting for work and shopping,"<sup>3</sup> emphasizing the shared responsibility among cultural stakeholders, audiences, and local governments.

Simultaneously, carbon assessments and studies conducted in the live sector revealed that audience travel represents the largest share of emissions for live performance organizations.

These findings underscore the importance of refining data related to audience travel in live music events.

The hypothesis that mobility correlates with venue size was also raised in the aforementioned report: "The larger the venue, the farther spectators travel, leading to greater reliance on air travel and significantly higher CO2 emissions. This increase in venue size emerges as the primary driver of uncontrolled CO2 emission growth."<sup>4</sup> This analysis was further supported by the Déclic study, which identified "a correlation between the average distance traveled by an audience member and the venue's capacity."<sup>5</sup>

However, the figures from these studies are primarily based on estimates or data from a limited number of entities (18 organizations, including concert halls, festivals, production companies, and training centers) representative of the performing arts and the live music sectors in the Déclic study.

The Landscape study, following in the footsteps of these earlier studies, aims to refine these hypotheses and results with a larger sample of venues and datasets. Beyond yielding more precise results, this study will also highlight existing gaps—both quantitative and qualitative—that need to be addressed.

<sup>1</sup> Culture Chiffres, "Ticketing for live performances in 2022", Thibault Caïe, Léa Garcia, Amandine Schreiber, Laure Turner, Ministry of Culture, 2023.

<sup>2</sup> "Live dissemination and festival focus in 2023," CNM, 2024.

<sup>3</sup> "Let's Decarbonize Culture," The Shift Project, p.32.

<sup>4</sup> Ibid, p.64

<sup>5</sup> Déclic, SMA and FEDELIMA, p.25

# Objectives



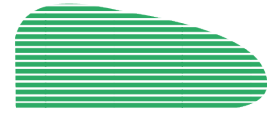
→ **Provide new quantitative data**

on the environmental and climate impacts of the live music sector.



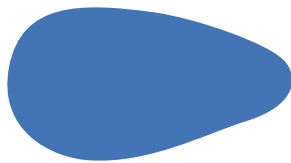
→ **Gain a deeper understanding of the mobility patterns**

of audiences attending live music venues.



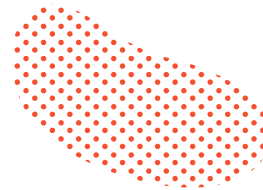
→ **Understand the various reasons**

that explain the number of kilometers traveled to attend a concert.



→ **Initiate discussions**

and avenues for reflection on future professional practices.

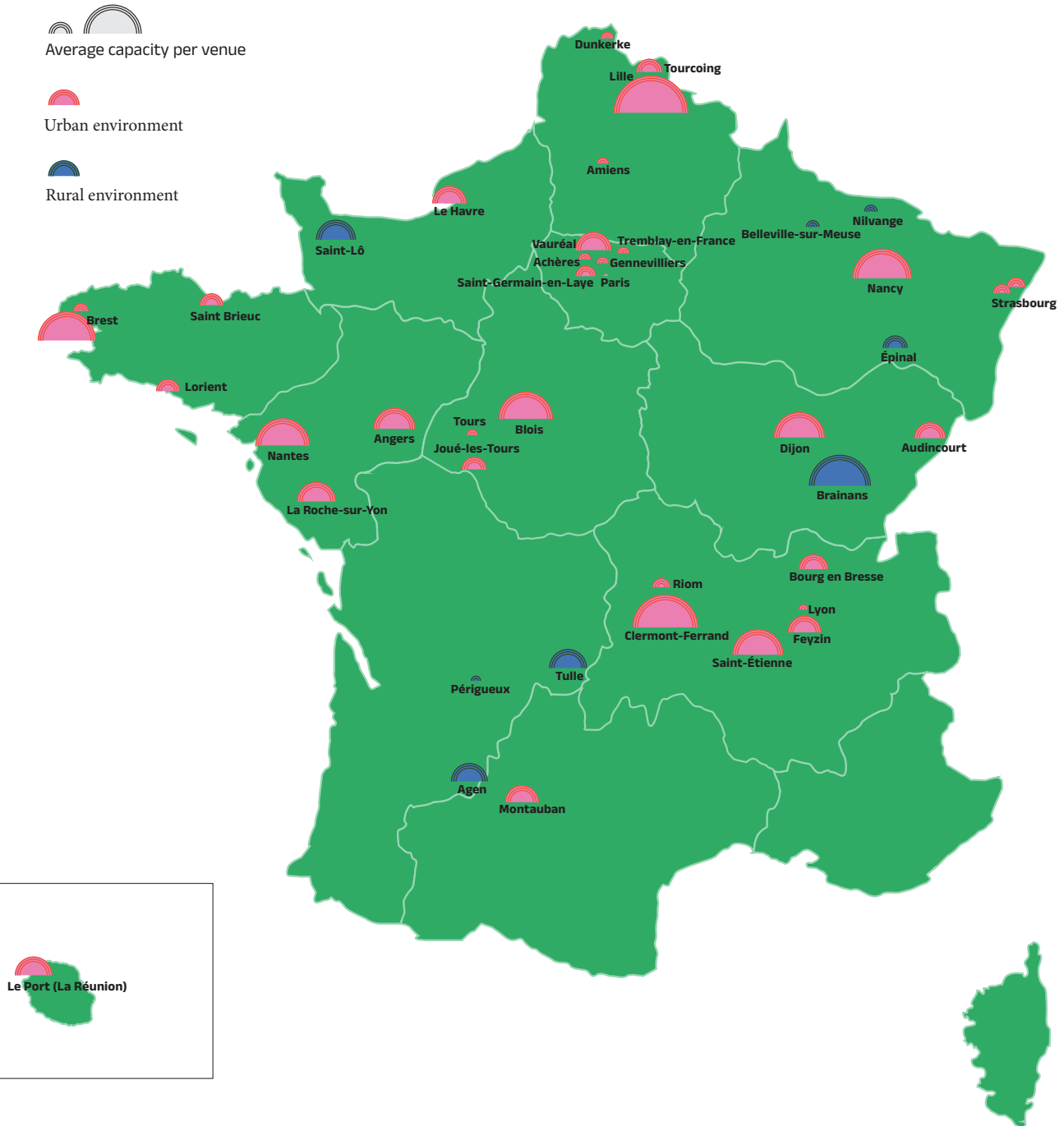


→ **Propose recommendations**

on the collection and processing of data related to the travels of live event audiences.

# Methodological Note

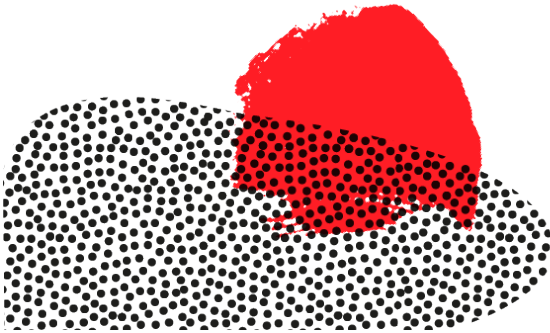
The panel for this study consists of 42 live music venues, the majority of which are labeled “Scènes de Musiques Actuelles” (SMAC<sup>6</sup>). Among these, 34 venues are located in urban contexts, and 8 are situated in rural areas or urban settings with a rural environment, based on the typology defined by FEDELIMA.



<sup>6</sup> The term “SMAC” (Scène de Musiques Actuelles) refers to a state label created in 1998. This label is awarded by the Ministry of Culture to organizations that fulfill various missions, including concert programming, supporting musical practices (ranging from amateur to professional through rehearsal, recording, training, resources, and creation), as well as conducting cultural outreach activities in the field of so-called “live music.” However, it is crucial to note that this term is often used too generically by public authorities and professionals to refer to all such venues. To avoid confusion, it should be clarified that, as of 2023, only 79 members of FEDELIMA are officially labeled as SMACs by the state, representing 49.7% of FEDELIMA’s members.

The decision was made to work by capacity, i.e. to look at the maximum capacity in terms of the number of spectators determined by the venue for each show. We identified 441 different capacity levels, ranging from 1 to 2,600 seats.

<b>1 &gt; 99</b> capacity	<b>68</b> events
<b>100 &gt; 199</b> capacity	<b>62</b> events
<b>200 &gt; 299</b> capacity	<b>47</b> events
<b>300 &gt; 399</b> capacity	<b>42</b> events
<b>400 &gt; 499</b> capacity	<b>51</b> events
<b>500 &gt; 599</b> capacity	<b>21</b> events
<b>600 &gt; 999</b> capacity	<b>78</b> events
<b>1000 &gt; 1499</b> capacity	<b>63</b> events
<b>500 &gt; 2000</b> capacity	<b>9</b> events



These different capacities cover all the types of events that can be organised or hosted by contemporary music venues: concerts, meetings, masterclasses, workshops, cultural action projects, off-walls, visits, studio hire, etc.

These different types of events also explain the very small capacities (which mainly concern studio hire, workshops, masterclasses and cultural action projects), and enable the variety of activities to be covered.

These different types of event also explain the treatment of very small audiences (most of which -concern studio hire, workshops, masterclasses and cultural action projects), and make it possible to cover the variety of activities carried out by current music venues, in addition to concerts.

This study is based on ticketing data from SoTicket, corresponding to a total of 750,000 tickets (paid or free) taken between 1 January and 31 December 2023.

SoTicket enables venues to collect a range of information from purchasers, including their home postcode.

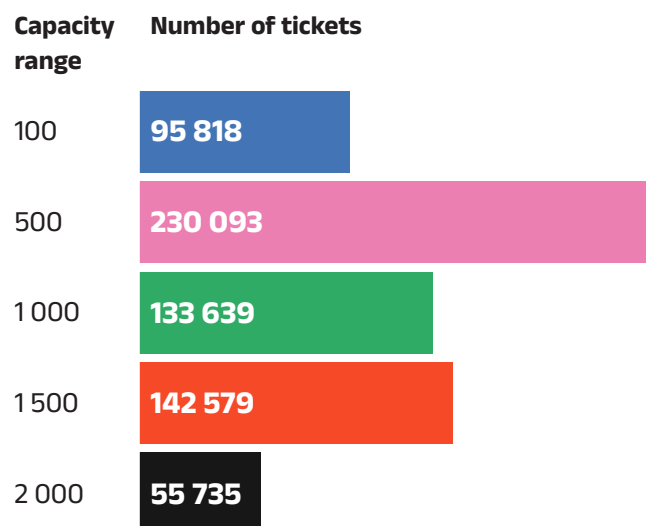
After cleaning up the erroneous data and data that could not be used, we arrived at a total of 665,000 tickets that could be processed as part of this study. 73% of these tickets were bought online, and 27% on site at the venue. All the postcodes of purchasers were available online. For tickets purchased on site, only 30% had the purchaser's postcode.

For tickets for which we did not have postcode data, we added estimates based on a review of data from two venues for which we had sufficient data to determine the percentage breakdown of kilometres travelled to attend an event at these venues: a rural venue for which we had 86% of the postcodes for tickets purchased on site, and an urban venue which had 68%.

After calculation, we decided to divide 75% on the 0 to 10 km band, 20% on the 11 to 20 km band and 5% on the 21 to 50 km band.

It was also decided to exclude "festival" and "off-site" formats with a capacity greater than the maximum capacity of the venues concerned.

The breakdown of ticket sales by capacity is as follows:



Only 7,459 tickets were for a capacity of 2,500 spectators, so these have been allocated to the capacity band corresponding to 2,000 spectators.

# Results

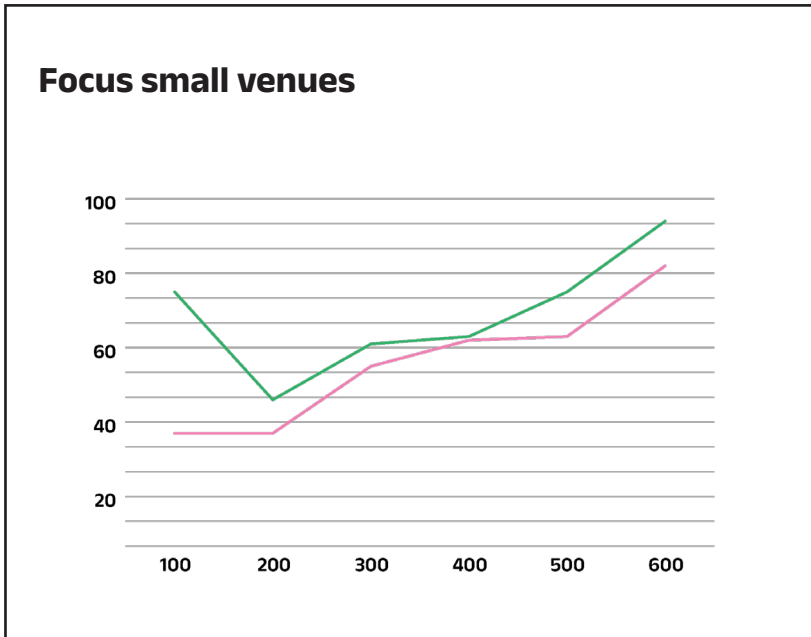
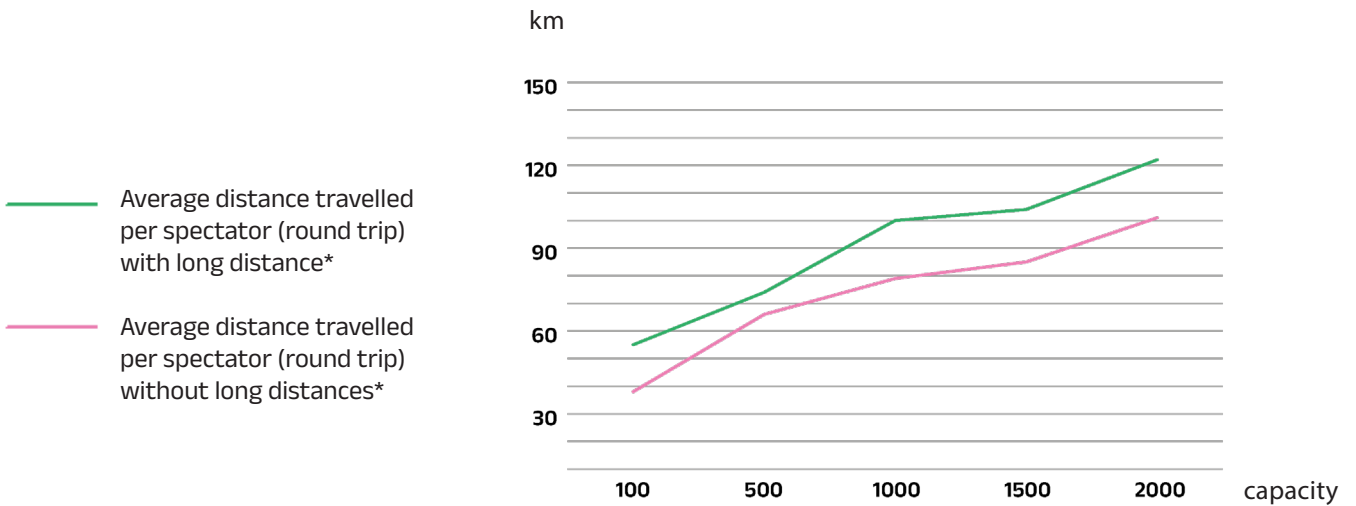
On average, a spectator travels 72 km round trip to attend an event organised by a contemporary music venue (86 km round trip if we include distances travelled over 2,000 km round trip).



AVERAGE SIZE RANGE	100	500	1000	1500	2000
AVERAGE KM TRAVELLED WITH LONG-DISTANCE*	55	74	100	104	122
AVERAGE KM TRAVELLED, EXCLUDING LONG DISTANCES*	38	66	79	85	101

\* By 'long distance' we mean return journeys exceeding 1999 km (see the 'uncertainties' paragraph for more details on this point).

## Average distance travelled per spectator (A-R) according to capacity range

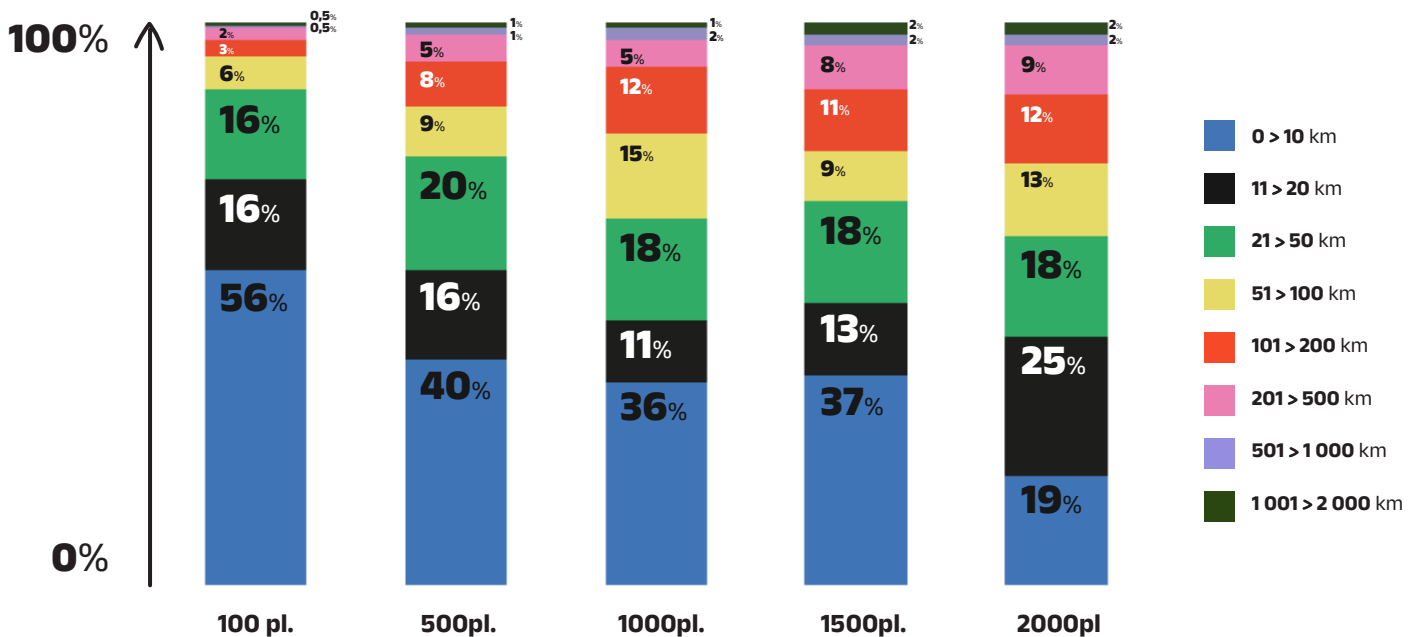


The graph shows that the larger the capacity, the greater the distance travelled to attend an event. The coefficient of the regression line is 0.961.

The zoomed-in section shows an equivalent evolution. If we include long distances in our analysis, a certain number of these journeys affect the 100 spectator capacity bracket, whereas these distances are absorbed more by the larger capacity brackets.

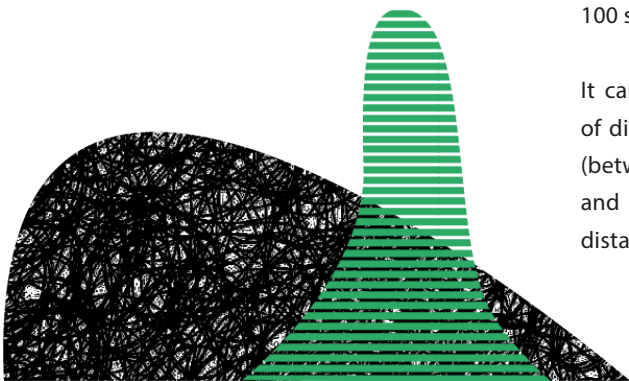


### Average distribution of distances travelled by spectators (A-R) according to capacity category



We can see a relative stagnation for the range 500-1,500 seated capacity. Short distances (between 0 and 10 km) represent 56% of journeys in the average of 100 seats capacity and 19% of journeys for venues with 2,000 seats capacity.

It can also be seen that whatever the capacity concerned, the percentage of distances travelled between 21 and 50 kilometres is relatively equivalent (between 16 and 20%). The proportion of distances covered between 201 and 500 km increases gradually with the capacity, while the proportion of distances over 500 km remains broadly the same for each capacity examined.



## Uncertainties

In addition to the estimates made for the breakdown of kilometres travelled by people who bought their tickets on site, we would like to point out that there are other uncertainties:

- The person who buys the ticket online is not necessarily the person who goes to the event (e.g. a person buys 2 tickets and therefore enters his own postcode, but offers these tickets to 2 people who do not live in the same place).
- The place of residence is not necessarily the place of departure (e.g. a person going directly to the concert

after working hours does not enter his or her place of work, but rather his or her place of residence).

- We do not know the modes of transport used.
- We do not necessarily know the country of the foreign postcodes, which may be identical for different territories. The choice was made to use the country closest geographically to the venue.

# Recommendations and ideas

## Importance of working by capacity rather than by venue

In order to analyse the audience travel attending events hosted or organised by contemporary music venues, it seems more relevant to focus on the capacity of the event rather than the capacity of the venue itself. The capacity of the event (and not of the venue) is chosen by the programmer and gives a better understanding of the complexity of audience travel patterns and the way in which these differ according to the scale and reputation of the event.

In average: **10** different capacity options per venues

## Travel patterns in urban and rural contexts

The current analysis did not reveal any marked differences in terms of average distances travelled. This can be explained in part by the imbalance in the representation of places in rural areas compared with those in urban areas. However, this distinction does not seem to be the most relevant for analysing distances travelled in rural or urban areas. While urban areas offer more public transport options, the predominance of private car use remains high in both contexts, given the distances travelled. Although urban areas theoretically have better access to sustainable modes of transport, they still have populations that remain dependent on the car. In France, the car is the main mode of transport for distances of 1 to 1,000 km, with a 91% modal share for distances of 100 to 200 km. This point highlights a wider problem in the transport sector, where public infrastructure and cultural practices and habits need to be aligned in order to encourage more sustainable mobility practices, which require targeted and localised solutions.

## Ticketing, a valuable and relevant tool

Ticketing platforms offer great potential for monitoring audience travel and for collecting detailed data on the start destination of spectators and participants. Integrating the collection of postcodes into the ticketing process is already proving useful. However, this process can be improved by refining the types of data collected. Extending ticketing data to include the place of departure (particularly where this differs from the place of residence), return destinations and modes of transport used would provide a better understanding of the carbon emissions associated with the mobility of audiences at live music venues. Collecting data to better define whether audiences travel from their place of residence, their place of work or another location could also give a more accurate picture of audience habits. The possibility of asking for the locality and country in addition to the postcode would also reduce potential errors and the time spent processing the data.



## The predominance of the car in short-distance journeys

Studies into the modal share of daily journeys in France confirm private vehicles as the most common form of transport. A report<sup>7</sup> published in 2022 by the French Transport Authority revealed that cars accounted for 63% of journeys of less than 80 km, indicating that the use of private cars has fallen only slightly over the last decade (compared with 65%). This situation represents a major reduction lever for events attracting a local audience over short distances, as a large number of these journeys - 41% of which are less than 5 km (average of 1 to 2,000 seats) - could be replaced by cycling or walking. These results highlight the need for targeted interventions to reduce dependence on the car for short journeys, possibly by improving infrastructure for cycle paths or pedestrian walkways and by encouraging the use of public transport.

## Long-distance travel: integrating or excluding data?

One of the main challenges of the current study concerns the way in which data on long-distance journeys is handled. These long-distance journeys, particularly those involving air travel (air being the main mode of travel once the journey exceeds 1,000 km and almost the only mode beyond 5,000 km), disproportionately increase the carbon footprint of an event, but attributing these emissions solely to the music event can be misleading. Major museums, for example, are increasingly choosing not to include the emissions of foreign tourists in their carbon calculations, believing that these people are unlikely to have travelled only for a specific exhibition. A similar approach could be considered for concert halls, particularly when the data shows that participants come from distant countries such as the United States, and that they may have attended the event as one of several activities during a stay that was not motivated by coming to the concert or event.

**Medium  
distances**



**Long  
distances**

However, it is still essential to take accurate account of these mobility patterns and use them where appropriate, as excluding data relating to long-distance travel runs the risk of underestimating the real environmental impact of large-scale events, particularly those with an international scope.

<sup>7</sup> Le Transport de voyageurs en France, Autorité de régulation des transports, 2022 "On everyday journeys (less than 80 km), the car still accounts for almost 63% of the modal share, compared with 65% ten years ago. Far ahead of walking (23.7%) and public transport (9.2%). 15% of journeys by car are less than 2 kilometres, and 41% are less than 5km; distances that can be covered by bike".

## Case study 1:

Two spectators with postcodes in the United States bought tickets online for a free event held at an urban SMAC in Lyon. On the basis of the data available to us, we can establish several scenarios, in order of probability:

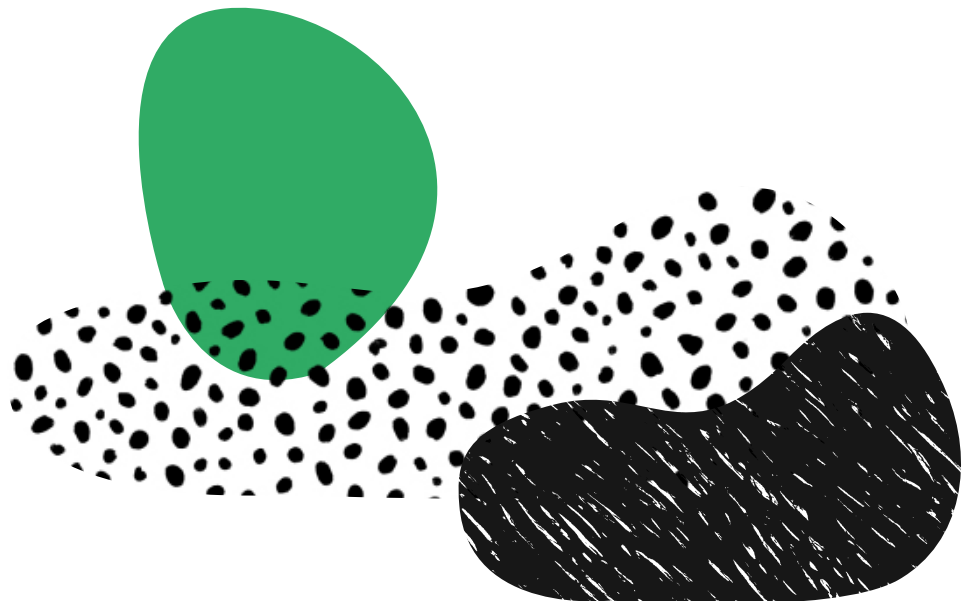
- The spectators are French people living in the United States who have come to France on holiday with their families and have taken the opportunity to attend a concert
- The spectators are in France for a long stay and have attended the concert as part of their leisure activities
- The spectators are American tourists who attended the event when they were in Lyon

Given the type of event and the distance travelled, it is highly unlikely that people travelled from the United States specifically to attend this concert.

## Case study 2:

Numerous concert-goers at the venue in La Réunion entered a postcode corresponding to a home address in continental France. Here again, several scenarios emerge, also excluding the fact of travelling more than 18,000 km to attend a concert.

- Spectators are Réunionese living in mainland France who went to the concert as part of their family/friends' holiday
- Spectators are tourists living in mainland France who attend a concert while visiting the island
- Spectators are people staying on the island for a long period of time who attended the concert as part of their leisure activities and who have kept their mainland France postcode.



# Conclusion

The integration of the concepts of audience size highlighted in this study seems to us to have a number of advantages, since it would make it possible to better understand two areas for improvement in reducing the carbon emissions associated with musical events. Firstly, it allows venues to think collaboratively about programming and capacity, which could lead to adjustments. As previous studies have shown, the larger the capacity, the greater the distance travelled by the audience, which significantly increases mobility-related emissions, particularly when air travel is involved. A more measured approach to the size of events could therefore help to limit this increase in emissions by favouring more modest capacities and a more local audience.

We also believe that it is important to take into account the actual distances travelled by spectators in order to better target strategies for reducing emissions linked to slow travel and public transport. For example, when public transport is used only marginally or not at all (particularly for distances of more than 10 km), raising awareness of car-sharing could become a powerful lever for reducing the impact of long-distance travel. By working with precise data on the distances travelled, it would be easier to adapt awareness campaigns and propose transport solutions that are more appropriate to the realities of people's journeys. These two avenues, centred on audience size and the actual travel of spectators, could make a significant contribution to the overall effort to decarbonise the music sector.

The study also highlights the need to refine the collection and analysis of travel data. Currently, the data in the study

is based on postcodes. To improve the environmental assessments of events hosted and organised by contemporary music venues and obtain more in-depth information, it is essential to refine the data collection processes. Working with data for specific venue capacities, improving the collection of details on mode of transport and departure/return location, and considering how to handle data on long-distance travel will all contribute to a more nuanced understanding of the mobility of audiences at live music venues. This will enable better strategies to be developed to reduce the sector's carbon footprint and promote more sustainable practices in public mobility.

**"The Landscape study, supported by the Centre national de la musique as part of its financial backing for the Landscape project, provides new, useful and relevant knowledge to shed light on the issue of audience mobility, the number one source of carbon emissions in the performing arts industry". Maxime Thibault, Centre National de la Musique**





The Landscape project, led by AJC, Pèriscope and Bimhuis, is supported by the French government as part of the 'Supporting green alternatives in culture' programme of the France 2030 cultural and creative industries (CCI) initiative, operated by Caisse des Dépôts.

