



The Music Data Dashboard

D5.2 BOOKLET



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Fair MusE research and industry partners



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INTRODUCTION

Why Music Data Matters Today

Music in the digital age generates vast amounts of data. Every stream, playlist, recommendation or chart position leaves a trace. Yet most of this information remains inaccessible to the public, to creators, and even to many professionals working in the music sector.

Fair MusE uses data not to reduce music to numbers, but to better understand how today's music ecosystem functions. Data can help reveal patterns of visibility, concentration and exposure that are otherwise hidden behind platform interfaces and commercial confidentiality. At the same time, data has limits. What can be measured shapes what can be seen, and what remains unmeasured often reflects deeper power asymmetries.

The Music Data Dashboard was developed as a way to explore these tensions. It does not aim to provide definitive answers about fairness or value. Instead, it offers a structured way to observe how music circulates across platforms and radio, what information is available, and where transparency breaks down.

This booklet explains what the Dashboard is, how it was built, what it shows, and, equally important, what it cannot show. In doing so, it highlights why access to music data is a central issue for fairness, accountability and trust in the digital music ecosystem.

**No access, no accountability:
without data, fairness cannot be assessed.**

Why Music Data Matters for Fairness

Fairness in the music ecosystem cannot be assessed without information. Decisions about remuneration, visibility and cultural diversity depend on how music is tracked, reported and interpreted.

INFORMATION ASYMMETRIES IN DIGITAL MUSIC

In today's music markets:

- platforms and large companies hold extensive datasets on usage and behaviour;
- creators, audiences and public authorities have access to only fragments of this information;
- key aspects of how music is promoted and monetised remain opaque.

This imbalance makes it difficult to verify claims about fairness, diversity or market functioning.

TRANSPARENCY AS A PREREQUISITE FOR TRUST

Transparency does not mean publishing every dataset. It means providing sufficient, reliable information to allow meaningful scrutiny. Without it:

- creators cannot understand how their works circulate;
- audiences cannot assess how recommendations are shaped;
- policymakers lack evidence to evaluate whether legal objectives are being met;

Data is therefore not neutral. Who controls it, who can access it, and under what conditions, directly affects trust in the music ecosystem.

WHY PUBLIC VISIBILITY IS LIMITED

Most music-related data is:

- Considered commercially sensitive
- Stored in proprietary systems
- Shared only under contractual arrangements

As a result, public understanding of how music markets operate is based largely on partial indicators, anecdotal evidence or aggregated statistics. The Dashboard responds to this gap by working with what can be accessed, while making the limits of that access explicit.

**Limited
access is not
a technical
issue.**

**It is a structural
feature of today's
music markets.**

The Big Structural Problem: Limited and Unequal Access to Data

One of the central findings behind the Music Data Dashboard is not derived from charts or metrics, but from the conditions under which the research itself had to be conducted. Access to music data in Europe is structurally limited and uneven, and this limitation shapes what can be known about the music ecosystem.

Most detailed information about music consumption, visibility and monetisation is held by platforms, large intermediaries and industry actors. These datasets are typically protected as commercially sensitive and shared only within contractual or proprietary frameworks. As a result, researchers, creators, audiences and public authorities see only fragments of how music circulates and how value is generated.

This asymmetry has direct consequences. It becomes difficult to verify claims about fairness, diversity or cultural exposure. It also limits the ability to compare platforms, assess market dynamics, or understand how legal and policy objectives translate into practice. What is visible to the public is often what platforms choose to make visible, rather than what would be needed for independent scrutiny.

Fragmentation compounds the problem. Even when data exists, it is often stored across incompatible systems, described using different standards, or locked into silos that cannot be easily connected. This makes holistic analysis costly, incomplete or impossible.

The Dashboard was developed in response to this situation. It does not overcome these structural constraints, but it makes them visible. By showing what can be analysed with limited access, it also highlights how much remains out of reach.

A Different Approach: Building a Demonstrator Under Constraints

Rather than attempting to replicate the datasets held by platforms or industry actors, Fair MusE adopted a different strategy. The Music Data Dashboard was built using data that could be accessed legally, ethically and realistically within the scope of a research project.

This choice was deliberate. It reflects an understanding that any claim about transparency or fairness must take into account not only what data exists, but who can access it and under what conditions. Working under constraints was therefore not a limitation of the project, but a core part of its design.

The Dashboard combines several types of information: donated streaming histories from individual users, publicly available radio playlists, and enriched metadata that allows tracks and artists to be identified and compared. These sources were selected because they are accessible without breaching confidentiality or contractual obligations, and because they reflect real listening practices.

At the same time, the project team was explicit about the boundaries of this approach. The data does not represent the full population of listeners. It does not reveal how recommendation algorithms function internally. It does not show how revenues are calculated or distributed. These absences are not oversights. They reflect the current limits of transparency in the digital music ecosystem.

By building a demonstrator within these boundaries, Fair MusE sought to answer two questions at once. First, what meaningful insights can still be generated when access is limited? Second, what kinds of questions cannot be answered at all without deeper structural changes in data governance?

The Dashboard therefore functions as both an analytical tool and a diagnostic instrument. It produces results where possible, and it exposes the structural conditions that prevent other forms of analysis from taking place.



Data donation shows what is legally possible, and what remains practically difficult.

Data Donation as a Research Innovation

A central methodological innovation of the Music Data Dashboard lies in its use of data donation. Instead of relying on datasets provided by platforms or intermediaries, Fair MusE explored whether individuals could voluntarily share their own listening histories for research purposes.

This approach builds on the rights granted to users under the General Data Protection Regulation, in particular the right of access established by Article 15. In principle, this provision allows individuals to request copies of the personal data that platforms hold about them, including information related to their listening behaviour.

By inviting participants to donate this data for research, the project tested a new pathway to transparency that does not depend on platform cooperation. It represents an attempt to rebalance information asymmetries by enabling users to act as intermediaries between platforms and public-interest research.

In practice, however, this approach revealed significant challenges. Obtaining personal data from platforms is often complex and time-consuming. The formats provided vary widely, and the process requires a level of digital literacy and motivation that cannot be assumed across the general population.

Participation levels reflected these difficulties. While the project aimed to reach a much larger number of contributors, only around 250 individuals ultimately donated their streaming histories. This shortfall is not simply a logistical issue. It demonstrates how formal data rights do not automatically translate into effective access.

The limited scale of participation is therefore an analytical result in itself. It highlights the gap between legal entitlements and practical usability, and it raises important questions about whether individual rights alone can deliver meaningful transparency in highly data-intensive markets.

How the Dashboard Was Built

The Music Data Dashboard was developed by combining multiple data sources into a single analytical environment. This process required careful alignment of formats, identifiers and contextual information.

Donated streaming histories provided detailed records of what individuals listened to over time. These data allowed the project to observe patterns such as repetition, exposure and concentration within personal listening behaviour. However, on their own, such records offer limited insight into broader cultural dynamics.

To complement this perspective, the project incorporated radio playlist data from 73 stations across Europe. Radio remains an important reference point for music exposure and editorial selection, and its inclusion enabled meaningful comparisons between algorithmic and curated forms of dissemination.

In order to analyse both datasets together, additional metadata was added. This enrichment process made it possible to identify artists, tracks and catalogue characteristics, allowing comparisons across listening contexts.

Throughout this process, the project team was confronted with practical and technical limits. Data formats differed substantially between platforms. Metadata was incomplete or inconsistent. Some variables required for deeper analysis were entirely absent. These constraints influenced not only what could be analysed, but also how results needed to be interpreted.

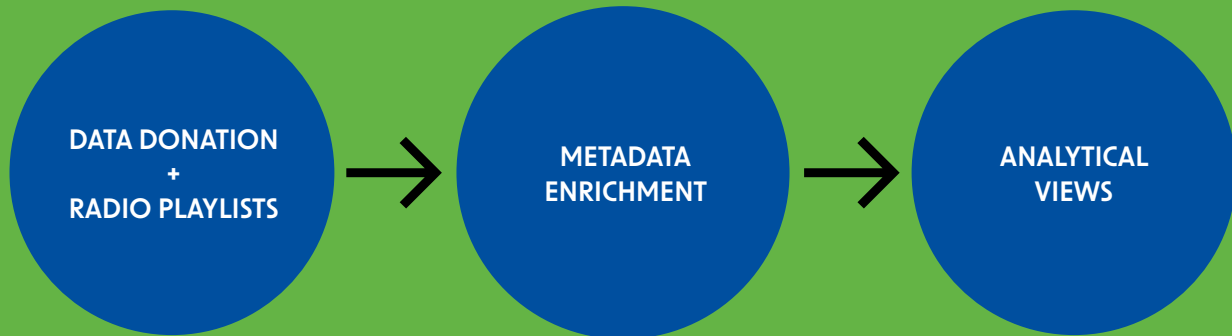
The Dashboard was therefore built as an exploratory instrument rather than a definitive measurement tool. Its architecture reflects a balance between analytical ambition and methodological caution, ensuring that insights are grounded in what the data can legitimately support.

FOCUS 1

From ambition to feasibility

During the development of the Dashboard, the research team initially designed a wide range of potential indicators and visualisations. Many of these ideas could not be implemented, not because they lacked relevance, but because the required data was incomplete, inconsistent or unavailable.

This gap between conceptual ambition and practical feasibility illustrates a central challenge of music data governance: meaningful analysis depends not only on analytical capacity, but on structural access to reliable data.



What the Music Data Dashboard is (and is not)

The Music Data Dashboard is a **demonstrator**. It was created to test what kinds of insights can be generated using data that researchers can legally and realistically access today.

WHAT THE DASHBOARD IS

The Dashboard is:

- a **proof of concept** showing how different types of music-related data can be combined;
- a **research tool** designed to explore transparency, exposure and concentration;
- a way to connect **listening behaviour, industry structure, and legal and policy frameworks**.

It brings together empirical data and contextual analysis to illustrate how music is distributed, discovered and made visible in contemporary digital environments.

WHAT THE DASHBOARD IS NOT

The Dashboard is **not**:

- a comprehensive monitoring system of the music market;
- a tool to calculate whether artists are paid “fairly”;
- a ranking or evaluation of individual platforms;
- a substitute for regulatory oversight or public data infrastructures.

Its scope is intentionally limited. Rather than offering final metrics, it demonstrates what becomes visible when some data is made accessible, and what remains hidden when it is not.

WHY THIS DISTINCTION MATTERS

Much public debate assumes that dashboards and metrics can automatically deliver transparency. Fair MusE takes a more cautious approach. Without access to key datasets held by platforms and industry actors, any analytical tool will reflect existing asymmetries.

The Dashboard therefore serves a dual purpose: it produces insights where possible, and it exposes the boundaries imposed by limited data access. Both outcomes are analytically meaningful.

Three Elements of the Dashboard

The analysis in Music Data Dashboard is based on three analytical elements. Together, they reflect the idea that fairness in the music ecosystem cannot be understood through listening data alone, nor through legal analysis in isolation. Instead, it emerges at the intersection of rules, market structures and everyday listening practices.

LAWS AND RULES IN EUROPE

One analytical element helps us examining how European law and policy frame concepts such as fairness, transparency and platform responsibility in the music sector.

Rather than focusing on individual legal provisions, the Dashboard traces how these ideas have evolved over time. It highlights the growing attention paid by EU institutions to the role of digital platforms, the importance of access to information, and the need to rebalance relationships between creators and intermediaries

THE MUSIC INDUSTRY

Another analytical element focuses on the structure of the music industry and on how power and information are distributed across it.

The analysis confirms the assumption that, despite increased digital access and lower barriers to distribution, a relatively small number of large companies continue to play a dominant role in the market. These actors benefit from scale, extensive catalogues and advanced data infrastructures.

At the same time, independent labels, publishers and creators form a highly diverse ecosystem. While they contribute significantly to cultural production, they often face structural disadvantages, particularly in relation to access to information and bargaining power. This finding is also backed by our analysis of users' donated data and radio stations' playlists.

Interviews and industry research included in the Dashboard reveal widespread concern among professionals about transparency. Many stakeholders report difficulties in understanding how music is promoted,

how revenues are generated, and how exposure translates into income. This view is also backed by our interviews with music consumers.

HOW PEOPLE LISTEN TO MUSIC

The third analytical element in our research focuses on listening behaviour, using donated streaming histories and radio playlist data to observe how music is actually consumed and exposed.

The analysis focuses on patterns rather than individual preferences. It examines, for example, how often tracks are replayed, how concentrated listening tends to be, and how exposure differs between streaming platforms and radio. The majority of the listening history data we analyse stems from Spotify users. It is important to stress that the resulting dataset is not representative of the European population. Participants self-selected, and listening habits vary significantly across age groups, regions and platforms.

The Dashboard therefore does not aim to describe “how Europeans listen to music”. Instead, it shows what kinds of analysis become possible when some listening data is available, and what remains invisible when access is partial. Additional information was added to identify artists, tracks and catalogue characteristics, enabling meaningful comparisons across listening environments.

We have identified a number of indicators as relevant for the discussion of fairness of the music eco system:

- the frequency with which the same artists or tracks recur in listening histories and in the radio playlists;
- the distribution of plays across large and independent labels;
- the growth over a long span of years of ‘auto-play’ over user’s active choice;
- radio channels are less diverse in their playlist programming than our donors are in their listening;
- radio channels are more similar to each other than our donors in terms of music choice;
- the exposure of top-20 artists is more even distributed in the streaming services than in radio channels;

These observations give credibility to streaming services for giving access to a large and diverse array of artists.

At the same time, the analysis is careful not to overinterpret these patterns. Without access to platform algorithms or broader datasets, the Dashboard cannot determine causality. What it can do is highlight regularities and contrasts that merit further scrutiny.

Looking at concentration in the music industry

The Music Data Dashboard does not only observe listening behaviour. It also explores how the music industry itself is structured.

While detailed financial data remains inaccessible, the mapping highlights how market power is unevenly distributed, with a limited number of large actors occupying central positions across multiple segments of the value chain. This structural concentration provides important context for understanding why access to data and transparency remain contested issues.

Why the Dashboard cannot analyse remuneration

One of the clearest limits identified in the project concerns remuneration. Information about payments, licensing terms and revenue flows is generally protected as confidential and cannot be accessed through user data or public sources.

This means that even when listening patterns are visible, it is not possible to assess how income is calculated or distributed. In the Dashboard, this absence is treated as a finding in itself: fairness cannot be evaluated where economic data remains inaccessible.

What the Dashboard Shows

The Music Data Dashboard produces a number of meaningful observations. These insights do not provide definitive answers, but they illustrate structural tendencies in how music is exposed and consumed.

One of the clearest patterns concerns concentration. Both streaming and radio environments show that attention is not evenly distributed. A relatively small number of artists and tracks account for a large share of plays, while many others receive very limited exposure.

The comparison between streaming and radio highlights important differences. Radio playlists tend to be more stable and repetitive, with frequent rotation of selected tracks. Streaming environments show greater variation at the individual level, but they also display strong concentration effects once listening histories are aggregated.

The data also points to the importance of repetition. Tracks that receive repeated exposure are far more likely to remain visible over time. This reinforces existing hierarchies and makes it difficult for less established artists to gain sustained attention.

The role of algorithms emerges as significant, but largely opaque. Patterns in listening behaviour suggest that recommendation systems shape exposure, yet the Dashboard cannot observe how these systems function internally. This absence is itself revealing. It demonstrates how central mechanisms of visibility operate beyond public scrutiny.

Overall, the findings illustrate a core tension. Data allows certain dynamics of exposure to be observed, but it stops short of explaining why they occur. This gap between observation and explanation is a defining feature of today's music data environment.

What the Dashboard Cannot Show (and Why That Matters)

Equally important to what the Music Data Dashboard reveals is what it cannot observe. These limits are not accidental. They reflect structural characteristics of the digital music ecosystem and help explain why transparency remains difficult to achieve.

The Dashboard cannot track how revenues are calculated or distributed. Information about payments, licensing terms and remuneration flows is not accessible through user data or public sources. As a result, it is not possible to link patterns of listening directly to income received by creators or performers.

The Dashboard also cannot observe how recommendation algorithms function internally. While listening patterns may suggest algorithmic influence, the parameters that shape recommendations remain opaque.

Without access to platform logic, it is impossible to determine how visibility is prioritised or how exposure is allocated.

In addition, the data does not capture the full range of factors that influence music consumption, such as promotional strategies, contractual arrangements, or editorial decisions made behind the scenes. These elements play a central role in shaping outcomes, yet they remain outside the scope of observable data.

Rather than treating these absences as weaknesses, Fair MusE interprets them as findings in their own right. The inability to answer certain questions demonstrates where transparency breaks down. It shows that individual data rights and partial access mechanisms are insufficient to illuminate key aspects of digital music markets.

What These Findings Mean for Creators and Audiences

For creators, limited access to data translates into limited understanding of how their music circulates. Without reliable information on exposure, recommendation and monetisation, it becomes difficult to assess whether outcomes are fair or to challenge decisions that affect visibility and income.

For audiences, opacity reduces trust. Listeners interact daily with recommendation systems and curated playlists yet have little insight into how these environments are shaped. This limits informed choice and weakens confidence in the neutrality of digital platforms.

At a broader level, the findings raise questions about cultural diversity. When exposure is highly concentrated and the mechanisms behind visibility remain hidden, it becomes difficult to evaluate whether digital markets support a diverse range of voices or reinforce existing hierarchies.

The Dashboard does not provide solutions to these issues. What it offers is evidence that meaningful debate about fairness requires more than isolated datasets or individual access rights. It requires structural approaches to transparency that operate at ecosystem level.

**Fairness cannot be evaluated
if the system cannot be seen.**

Why a Dashboard Is Not Enough

While the Music Data Dashboard provides valuable insights, it also demonstrates the limits of relying solely on analytical tools to address fairness and transparency in the music ecosystem.

Dashboards can visualise patterns, highlight disparities and support discussion. However, they cannot resolve structural problems on their own. When access to data is uneven, dashboards inevitably reflect existing power imbalances. They show what is measurable, not necessarily what matters most.

There is also a risk of reductionism. Complex cultural, economic and creative processes cannot be fully captured through quantitative indicators alone. Overreliance on metrics may oversimplify how value is created and how music circulates across societies.

For these reasons, the Dashboard should be understood as an entry point rather than an endpoint. It helps identify questions, but it cannot replace governance, regulation or institutional oversight.

**Data tools support transparency.
They cannot create it alone.**

Looking Ahead: Towards a European Music Observatory

One of the central conclusions of the Fair MusE project is the need for a more durable and institutional approach to music data in Europe. The Dashboard illustrates what is possible within a research project, but also why long-term solutions require stable frameworks.

A European Music Observatory could provide such a framework. Unlike a project-based demonstrator, an Observatory could:

- collect and maintain datasets over time
- operate under clear governance and public-interest mandates
- ensure continuity, comparability and methodological consistency
- facilitate cooperation between platforms, industry actors and public authorities

Crucially, an Observatory would not aim to replace existing actors. Its role would be to create trusted spaces for data aggregation, analysis and interpretation, aligned with legal safeguards and transparency objectives.

The Dashboard can therefore be seen as a prototype. It demonstrates both the demand for and the challenges of building shared knowledge infrastructures in the music sector.

CONCLUSIONS

What This Demonstrator Ultimately Shows

The Music Data Dashboard was developed to explore how far transparency can be achieved under current conditions. Its findings point in two directions at once.

On the one hand, meaningful insights can be generated even with limited access. Patterns of concentration, exposure and visibility can be observed, and important differences between listening environments can be highlighted.

On the other hand, the Dashboard makes clear that the most consequential aspects of the music ecosystem remain hidden. Without access to platform data, remuneration information and algorithmic logic, fairness cannot be fully assessed.

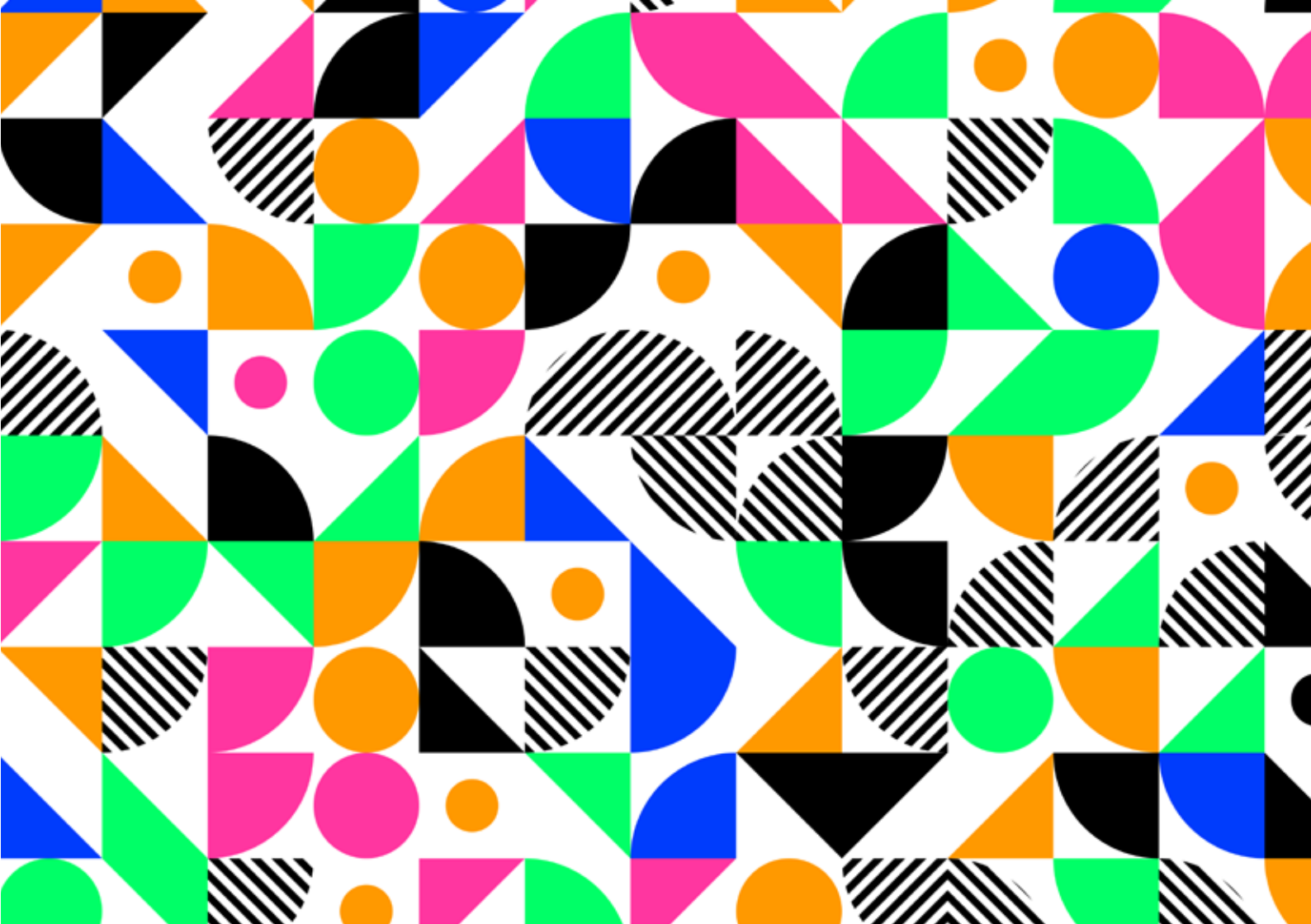
This dual outcome is the core contribution of the demonstrator. It shows that transparency is not simply a technical challenge, but a structural and governance issue. Data rights, research tools and analytical capacity matter, but they must be supported by institutional frameworks capable of ensuring access, accountability and trust.

In this sense, the Dashboard does not provide final answers. It provides evidence of what must change if Europe is to build a more transparent, fair and sustainable digital music ecosystem.

THE LIMITS OF QUANTIFYING MUSIC

The Dashboard raises a broader question about measurement itself. Music carries emotional, social and cultural value that cannot be fully captured through quantitative indicators. Any attempt to measure music necessarily reflects the categories chosen and may overlook what matters most to listeners and creators.

For this reason, the Dashboard is presented as a tool for observation, not evaluation. Its results contribute to understanding patterns, but cannot replace cultural judgement or policy deliberation.





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