



Music Copyright Infrastructure

D5.1 Music Copyright Infrastructure WP5, T5.1

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This project is funded by the European Union's Horizon Europe Framework Programme, under the Grant Agreement no: 101095088

Technical references

Project Acronym	Fair MusE
Project Title	Promoting Fairness of the Music Ecosystem in a Platform-Dominated and Post-Pandemic Europe
Project Coordinator	Giuseppe Mazziotti Universidade Católica Portuguesa (UCP) gmazziotti@ucp.pt
Project Duration	1 March 2023 – 28 February 2026 (36 months)

Deliverable No.	D5.1
Dissemination level*	PU
Work Package	WP 5 - Research Outcomes & Policy Solutions
Task	T5.1 - A Music Copyright Infrastructure
Lead beneficiary	1 (UCP)
Contributing beneficiary/ies	2 (VUB), 7 (UTARTU)
Due date of deliverable	31 December 2025
Actual submission date	31 December 2025

* PU = Public - fully open (automatically posted online)

SEN = Sensitive — limited under the conditions of the Grant Agreement

v	Date	Beneficiary	Author
1.0	9/12/2025	UCP	Giuseppe Mazziotti
2.0	31/12/2025	UCP	Giuseppe Mazziotti
3.0	3/06/2026	UCP	Giuseppe Mazziotti



Table of Contents

<i>1. Introduction: Fair MusE Task Force.....</i>	<i>5</i>
<i>2. Music Licensing, Collective Rights Management, and the Data Foundations of Today's Music Market.....</i>	<i>8</i>
2.1. Collective Management in Europe: From Territorial Mandates to Data-Driven Licensing	9
2.2. Independent Management Entities and the Changing Licensing Landscape	10
2.3. Licensing Hubs, Concentration of Rights and Metadata Control	10
2.4. Fragmented Data Infrastructures and the Structural Barriers to Transparency	12
2.5. Limits of Previous or non-EU Solutions: the Global Repertoire Database and the US Music Licensing Collective	13
2.6. Control Over Data Infrastructures and the Need for Shared Standards	14
2.6.1 State of the Art: Fair MusE's Empirical Findings.....	15
2.6.2. Data Law, Trade Secrecy, and the EU Open Data Strategy.....	18
2.6.3 Enhancing Music Data Accessibility and Improving Metadata Quality	19
2.6.4. High-Level Takeaway	23
<i>3. Mapping the System: Structural Problems, Historical Roots, and Economic Implications</i>	<i>24</i>
3.1. Status Quo: Music Data Flows & Flaws.....	24
3.1.1 The Recorded Music Layer: Structured and Globally Coordinated.....	24
3.1.2 The Music Publishing Layer: Fragmented and Temporally Misaligned	25
3.1.3 The Performance Layer: Historically Under-Documented and Operationally Burdened.....	26
3.1.4 MSSs vs UGC Platforms: Two Divergent Data Cultures	28
3.1.5 The Role of Intermediaries: Filling Structural Gaps	30
3.1.6 Responsibility and Costs.....	32
3.2. Why Fragmentation Persisted: Historical Trajectories and Regulatory Design	34
3.2.1 Recording History: Early Standardisation and Global Coordination	34
3.2.2 Publishing History: Territorial Collective Management and Catalogue Fluidity.....	35
3.2.3 Performers' Rights History: Late Development and Fragmented Documentation	37
3.2.4 Regulatory History: Pluralism, Competition, and the Limits of Centralisation	38
3.3. Economic Consequences: How Fragmentation Produces Systemic Winners and Losers ...	39
3.3.1 Where the System Works Well	40
3.3.2 Where the System Fails and Who Pays the Price	40
3.3.3 Platform-Driven Asymmetries	42
3.3.4 Regulatory Limits and Market Realities	43
3.4. Summary.....	45
<i>4. Towards a European Music Metadata Infrastructure: Rationale, Objectives and Governance Approach</i>	<i>47</i>
4.1. Best Practices and an Existing Model to Follow	47
4.2. Core Objectives and Guiding Principles	48
4.2.1 Completeness at Source.....	49
4.2.2 Interoperability, Not Centralisation.....	49
4.2.3 Layer-Sensitive Architecture	49
4.2.4 Platform Inclusion	50



D5.1 – Music Copyright Infrastructure

4.2.5 Governance and Accountability	50
4.2.6 Incremental Implementation and Extension to GenAI Copyright Licensing	50
4.3. Governance Architecture and Implementation Pathways	50
4.3.1 Governance Layer	50
4.3.2 Core Data Set 2.0 and a Golden Standard	51
4.3.3 Technical Architecture: Federated Linking Layer.....	52
4.3.4 Implementation	53
4.3.5 Incentives, Compliance, and Soft-Law Instruments.....	53
4.4. Summary.....	54
<i>Glossary.....</i>	<i>55</i>
<i>Bibliography.....</i>	<i>59</i>



1. Introduction: Fair MusE Task Force

Between July and October 2025, Fair MusE carried out an intensive Task Force exercise under Work Package 5, designed as the culminating phase of a broader three-year research programme into music repertoire data asymmetries, licensing practices, and creators' rights to fair remuneration in the European music ecosystem.

The Task Force convened a curated group of senior experts consisting of 35 external participants, bringing together representatives and stakeholders from across the music ecosystem. Its composition included international and European music industry associations (11), collective management and performers' organisations (9), independent legal, business and technical contributors (7), technology and data-driven music services (4), academic and research institutions (3), and one public authority. In addition to consortium members, the Task Force benefited from the insights and coordination of three external industry experts selected and hired by Fair MusE's Coordinator.

The composition reflected broad geographical coverage, with participants drawn from at least ten EU Member States, while several organisations were active at international level, contributing cross-border perspectives on licensing practices, metadata interoperability and governance challenges. The Task Force advanced its work through a structured series of activities. It convened three thematic roundtables (two online and one hybrid as the concluding session) and six internal and specialised meetings, delivered across online, hybrid and in-person settings, alongside approximately ten one-to-one interviews with selected contributors. The Task Force operated over a period of approximately seven months, providing sustained engagement throughout the development of D5.1.

This group was entrusted with the mandate to contribute to the design of a *Music Copyright Infrastructure* - a law-and-technology concept capable of supporting reliable, standardised, and interoperable metadata and rights information across the European digital music industry's value chain.

The exercise started with a formal invitation that outlined the rationale for assembling this body of experts. Fair MusE emphasised the persistent information asymmetries both within the music industry and between the recording and the music publishing sectors and digital exploiters. These structural imbalances continue to undermine transparent and equitable remuneration for music rightholders, in particular for authors and performers. These asymmetries are rooted in deeply fragmented, siloed, and proprietary repertoire data environments, which complicate the identification of works and rights ownership, generate mismatches in usage reporting, and ultimately prevent rightholders from receiving compensation proportionate to the actual exploitation of their works.

The Task Force was framed as a necessary next step following Fair MusE's major comparative EU copyright study entitled *Music Creators' Rights under EU Law* (D2.2) whose preliminary results were shared publicly through a slide set made available on the Fair MusE website. The study shed light on the institutional, legal and technological conditions that shape the scope of music-related rights and their management across the EU. The Task



D5.1 – Music Copyright Infrastructure

Force took these findings as a point of departure and moved towards designing structural solutions with real-world applicability.

Throughout the summer and early autumn of 2025, Fair MusE organised a series of online and hybrid roundtable consultations subject to the Chatham House Rule.¹ The thematic clusters that emerged in these discussions included

- Music publishing and recording metadata integration; the relevance and impact of music publishers' and CMOs' licensing hubs and their governance on repertoire and music data fragmentation;
- The impact of Article 17 of Directive (EU) 2019/790 (DSM Directive) on social media platforms' data infrastructures and their evolution on this front; the emergence and consolidation of DDEX and other industry standards; and
- Possible contractual and organisational architectures for data-sharing models that can strike a fair balance between the protection of the significant commercial investments made in the development of data infrastructures - which entails the expectation to keep all or a portion of this data confidential - and the interoperability and accessibility of this information across the whole music industry. The Task Force participants were encouraged to openly share insights and experiences, including operational details that typically remain inaccessible due to commercial sensitivities.

The discussions revealed both divergences and common ground. While stakeholders acknowledged competitive interests and differing institutional mandates, they also recognised that the sustainability and fairness of the digital music market increasingly require collaborative engagement with metadata quality and interoperability. The consultation process generated a substantial body of knowledge (practical, technical, and policy-oriented) that now informs the development of Fair MusE's proposal for a Music Copyright Infrastructure.

By November 2025, Fair MusE gathered the core ingredients for an integrated rights-and-data blueprint. This model aims to overcome the shortcomings of earlier and very ambitious initiatives such as the Global Repertoire Database (GRD), respond to the inefficiencies of today's music data fragmented system, and design a governance model capable of balancing commercial incentives with public-interest goals. The finalised concept will be delivered to the European Commission by 31 December 2025.

To guide the reader, this Deliverable is structured in three substantive sections:

- Section 2 introduces the Task Force's mandate and situates it within the historical and contemporary architecture of European music licensing, drawing on Chapters 7 and 8 of Fair MusE's *Music Creators' Rights under EU Law* to explain how repertoire data systems generate structural information asymmetries across musical compositions, sound recordings, and performances.
- Section 3 presents the diagnostic findings of the Fair MusE Task Force roundtables and interviews, showing how today's music data ecosystem is shaped by fragmented

¹ The Chatham House Rule reads as follows: When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.



D5.1 – Music Copyright Infrastructure

infrastructures, distinct historical trajectories, institutional asymmetries, and misaligned economic incentives. This section organises these insights into three analytical dimensions: current music data flows and flaws; the historical roots of fragmentation; and its economic consequences.

- Section 4 then proposes a conceptual architecture for a European Music Metadata Infrastructure (EMMI), outlining best practices, design objectives, a governance structure, and a phased implementation pathway. In particular, this section explains why the 2023 UK Music Metadata Agreement provides a credible model for a multi-stakeholder, supervised EU data-sharing framework.

The analysis and recommendations contained in this Deliverable reflect the views of the author and the Fair MusE project team alone and must not be attributed to the Task Force members or their organisations in any way.



2. Music Licensing, Collective Rights Management, and the Data Foundations of Today's Music Market

The Task Force's mandate is inseparable from the historical and contemporary structure of music licensing and its underlying repertoire data systems. Chapters 7 and 8 of *Music Creators' Rights under EU Law* provide a foundational analysis of the main elements that cause structural information asymmetries between different layers of copyright law protections.²

The Task Force roundtables confirmed that the current music data environment is best described as fragmented, proprietary, and only partially interoperable, despite the existence of global identifiers and industry standards. Data relevant to musical works, sound recordings, and performances in the digital economy is held in separate, often incompatible databases operated by CMOs, Independent Management Entities (IMEs), major and independent labels, MSSs, social media platforms, and specialised data intermediaries.

From a music right-holder's perspective, the ecosystem can be visualised as three simultaneously relevant rights and data layers:

- **Musical compositions**, for which ownership splits are managed primarily through CMOs, IMEs, and individual music publishers, with CISAC's CIS-Net working as a federated verification 'portal' for works and rightholder information belonging to each single CMO and IME.
- **Recordings**, identified mainly via International Standard Recording Codes (ISRCs), managed in large, global catalogues held by majors and leading independent phonogram producers.
- **Performances**, whose rightholders are identified via performers' CMO databases, linked to each other through SCAPR identifiers (i.e., International Performer Numbers or 'IPNs'). This is by far the music data layer with the most uneven coverage and implementation, given the lack of harmonisation of performers' remuneration rights and the different legal mechanisms which determine such remuneration and the way it is collected at national level.

As this Deliverable shows when describing how music data flows in digital markets, interconnections and interoperability among the above-mentioned rights' identifiers are essential to translate recording (i.e., ISRC-based) usage reports submitted by MSSs and social media platforms into data sets incorporating, and linking to, International Standard Musical Work Codes (ISWCs) (i.e., musical works) and, wherever relevant and available, IPNs (i.e., performers): see Figure 1.

² Giuseppe Mazziotti, 'Music Creators' Rights under EU Law' (2025) (hereinafter 'Fair MusE EU Copyright Study'), freely available at <https://fairmuse.eu/fairmuse-resources/> and <https://www.ssrn.com/ssrn/>.



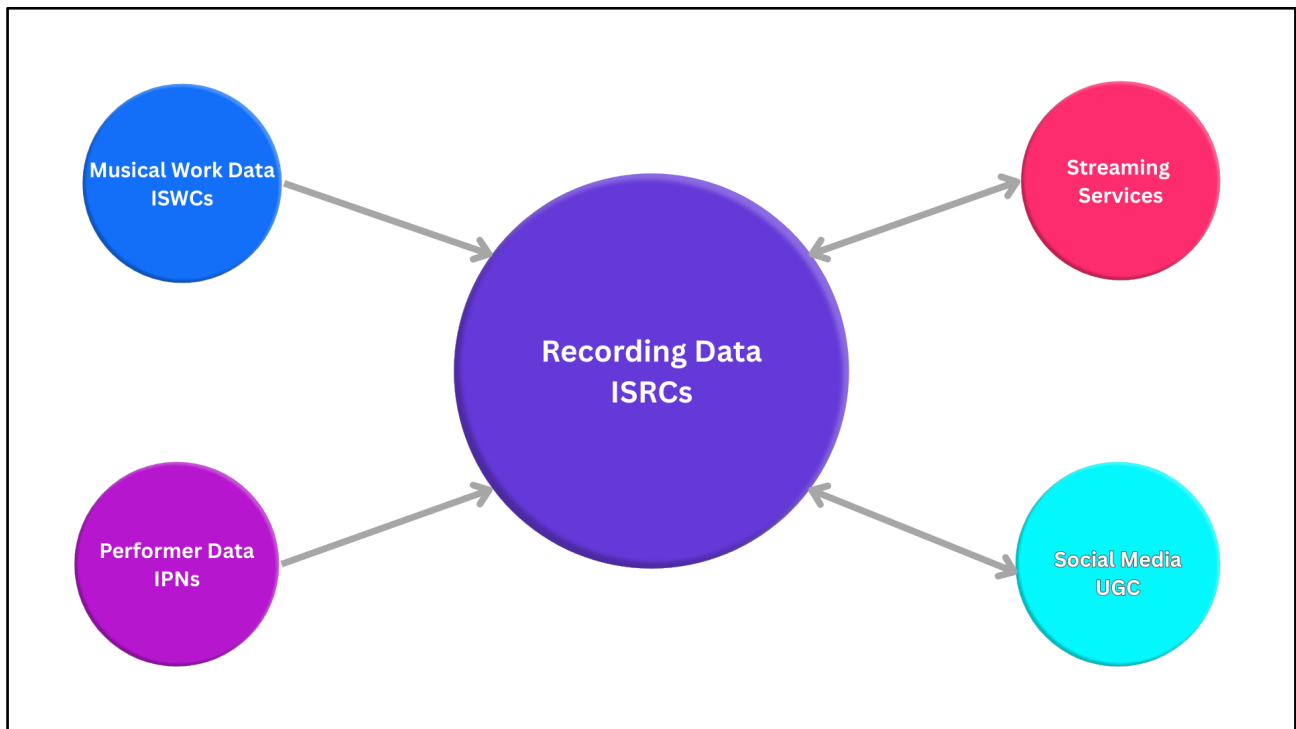


Figure 1: Centrality of recording data

Developing a possible solution that enables - both legally and technically - the effective interconnection of rightholders' works and their associated metadata requires a thorough understanding of music data flows. Before examining how data infrastructures currently operate within the digital music industry, it is nevertheless essential to outline how the organisation and historical evolution of composers' and publishers' collecting societies, together with the growing importance of direct licensing activities by music publishers and the management of their repertoire data, have reshaped relationships with other layers of rights. These developments have also profoundly affected the structure, governance, and interoperability of the identifiers used across the music ecosystem. The following section therefore provides the necessary background to understand how the increasing fragmentation of music licensing practices translates into a corresponding fragmentation of music data.

2.1. Collective Management in Europe: From Territorial Mandates to Data-Driven Licensing

CMOs have long served as the backbone of European music licensing of composers' and publishers' rights. Originating in the second half of the 19th century to manage public performance rights, CMOs evolved with the establishment and consolidation of the recording industry and of the mass media environments created by radio and TV broadcasters. These societies became essential intermediaries capable of aggregating music repertoires and concluding licensing agreements for the clearance of mechanical and broadcasting rights on behalf of thousands of composers and publishers. Their historical role was defined by territoriality: each CMO administered rights within national boundaries and licensed users in its own territory.



D5.1 – Music Copyright Infrastructure

As emphasised in the Fair MusE EU Copyright Study, digitisation disrupted this model. As sound recordings became dematerialised and ubiquitously accessible online, the geographic boundaries that shaped collective management became misaligned with the business realities of digital services. From 2005 onwards, the EU - neither a federal system nor a fully integrated digital market - pursued multi-territorial licensing to facilitate cross-border access. This policy ambition culminated in the 2014 Collective Rights Management Directive (Directive (EU) 2014/26, hereinafter ‘CRM Directive’), which imposed transparency, efficiency, and governance obligations on CMOs and introduced a rigorous set of rules (also known as “Passport” system) to ensure that entities issuing multi-territorial licences for online uses meet specific technical and legal standards. However, it should be recalled that the CRM Directive provisions concerning multi-territorial licenses are limited to authors’ CMOs that represent online rights in musical works, without affecting the activities of performers’ CMOs in the digital world.

The 2014 Directive accelerated a structural transformation, with composers’ CMOs and music publishers’ licensing hubs progressively becoming data companies and starting to operate internationally. Their licensing capacity now depends on their ability to maintain accurate, interoperable works databases and process high-volume usage information. Yet, this shift also introduced competitive asymmetries, favouring technologically advanced CMOs and marginalising smaller ones whose repertoires are less commercially attractive but culturally significant.

2.2. Independent Management Entities and the Changing Licensing Landscape

Alongside CMOs, IMEs have emerged as commercially driven alternatives that manage rights without collective ownership structures. IMEs operate in a more lightly regulated environment, with significant divergences across EU Member States: some historically prohibited IMEs, others imposed regulatory conditions, and others adopted permissive frameworks. IMEs can offer flexibility and customised services, although their regulatory asymmetry can raise concerns about their transparency and accountability. Their growth contributes to repertoire fragmentation, thereby reinforcing the need for robust, interoperable metadata capabilities across the music licensing system.

2.3. Licensing Hubs, Concentration of Rights and Metadata Control

The EU’s push towards multi-territorial licensing led to the creation of powerful rights processing hubs through the creation of joint ventures such as ICE, MINT, the SACEM–Universal alliance and consolidation of a publisher-owned digital rights licensing platform like AMRA (owned by publisher KOBALT).³ These entities aggregate large repertoires from CMOs representing composers and music publishers, issue multi-territorial publishing licences, and process complex usage reports from MSSs and social media platforms. European CMOs, most of which were not involved in the above-mentioned joint ventures, sought to develop an alternative model by forming alliances for the multi-territorial licensing of all their aggregated repertoires for online uses. This model gave rise to an organisation such as ARMONIA in south-Western Europe and the extension of the pre-existing Nordisk

³ Giuseppe Mazziotti, ‘The Role of Market-Driven and Legislative Solutions to Online Music Licensing in Europe’ (2019) 7/19 Jean Monnet Working Paper. For further information on AMRA, see <<https://www.amra.com/>>.



D5.1 – Music Copyright Infrastructure

Copyright Bureau's activities (already active in the domain of physical media) to digital uses for the Northern European and the Baltic region. However, none of these CMOs' alliances managed to compete with the licensing hubs formed by major CMOs and music publishers in the long term. ARMONIA stopped operating in 2023 due to internal conflicts on how to develop the alliance at a time SACEM was increasingly involved in developing its exclusive alliance with Universal Music and in boosting its data processing and management capacity.⁴ The Northern European and Baltic alliance, after a transformation of its digital licensing branch in a company named POLARIS, announced that it would be shutting down its business in 2026, as the market's development requires a larger scale and a more international reach.⁵

The successful hubs for the clearance of music publishing rights have built substantial repertoire and metadata infrastructures and IT capabilities. This gives them considerable influence over data standards, content identification processes, and the allocation of royalties. This centralisation has improved efficiency for major repertoires but intensified disparities vis-à-vis smaller or local repertoires whose data quality may be weaker and whose visibility in digital exploitations is limited.

The fairness implications of this scenario are clear: those who lack access to high-performance data infrastructures risk systematic marginalisation. The progressive inclusion of multiple repertoires in the musical work portfolios administered by the most successful and best-equipped hubs has certainly mitigated such risk. However, the conditions under which these hubs provide data processing and services to their clients (including external CMOs) is unclear because companies like ICE or MINT do not make a list of their music repertoires publicly available.

Figure 2 illustrates the evolution of these licensing hubs and the progressive concentration of musical work rights (so-called “publishing” rights) under the control of the largest joint ventures or companies (represented by the coloured circles). These entities have attracted into their orbit the aggregated repertoires of other rightholders (represented by the “grey” circles).

⁴ On Armonia see, for instance, Thomas Verborgh, ‘Multi-territorial licensing of rights in music for online use: an early evaluation’ (2021), 12

<<https://authorsocieties.eu/content/uploads/2021/10/alai-award-supported-by-gesac-thomas-verborgh.pdf>>.

⁵ For more information on POLARIS, see its official website <<https://polarismusicshub.com/music-licenses/>>. On the company's current situation, see Mandy Dalugdug ‘Nordic Collecting Societies Shutter POLARIS Licensing Hub Over Changing Market Demands’ (1 September 2025, *Music Business Worldwide*)

<<https://www.musicbusinessworldwide.com/nordic-collecting-societies-shutter-polaris-licensing-hub-over-changing-market-demands/>>.



D5.1 – Music Copyright Infrastructure

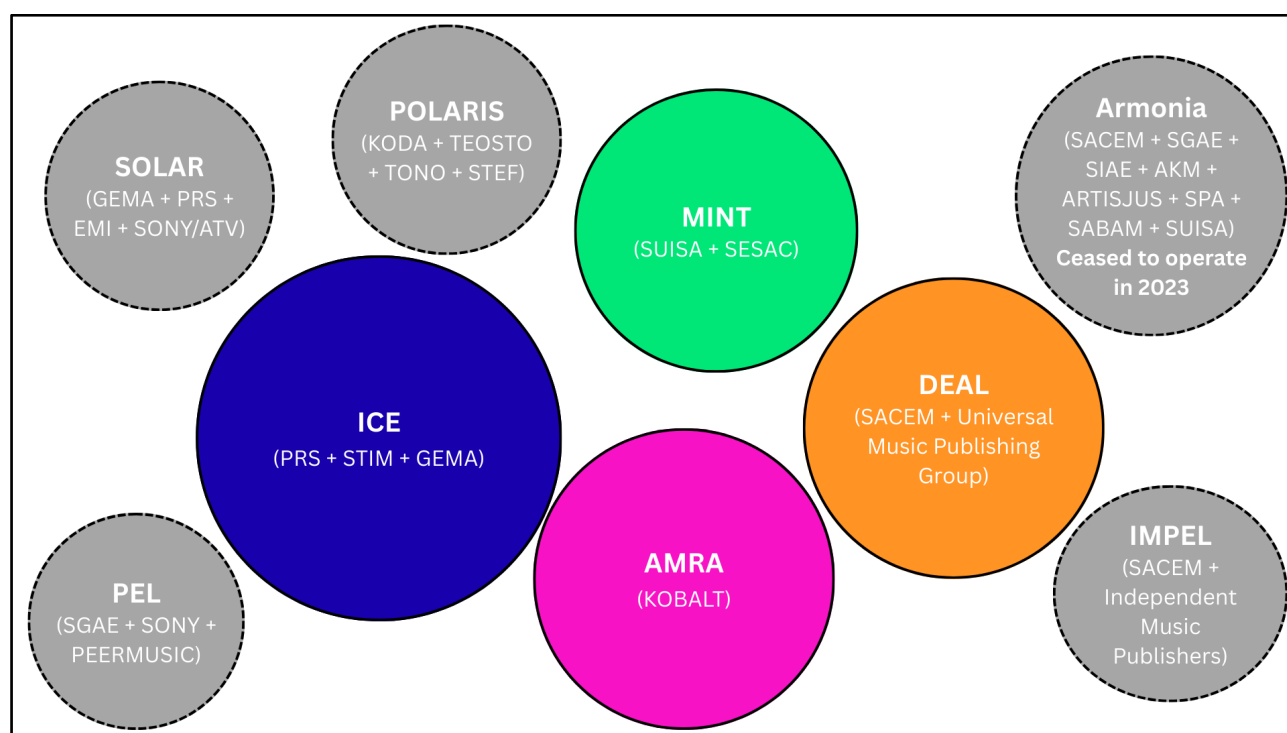


Figure 2: Evolution of music publishing hubs

It is significant that several CMOs recently decided to join the major licensing hubs as *customers* in order not to be in a disadvantaged position vis-à-vis other repertoires. Remarkably, this decision led to the breakup of societies like TEOSTO, TONO and KODA with POLARIS, with the first two societies joining ICE and the latter joining a new hub being built by Netherlands-based BUMA.⁶

2.4 Fragmented Data Infrastructures and the Structural Barriers to Transparency

Fair MusE's research outcomes demonstrate that the digital licensing landscape is marked by deeply fragmented and vertically uncoordinated data systems. Music publishing rights and recording rights - distinct in ownership structures, licensing pathways, and identifiers - are managed in separate, often proprietary databases maintained by CMOs, IMEs, publishers, record labels, and online platforms. These datasets are usually not connected and integrated.

This fragmentation leads to (i) recurrent mismatches between works information (ISWC-based) and recordings information (ISRC-based); (ii) incomplete or inconsistent usage reports; (iii) limited transparency for creators; and (iv) widespread inefficiencies in royalty allocation that leave the door open for possible frauds.

⁶ BUMA's recently established music licensing hub is not included in Figure 2, as it was not possible to retrieve publicly available information regarding the composition and internal structure of this joint venture.



D5.1 – Music Copyright Infrastructure

Although initiatives such as CISAC's CIS-Net for works metadata and DDEX standards for usage data exchange between the recording industry and tech companies have enhanced data interoperability, the two core layers of the industry (i.e., music publishing and recording) remain insufficiently synchronised. The fragmentation within the publishing sector itself, exacerbated by competition among CMOs and IMEs, further prevents harmonised repertoire data.

2.5. Limits of Previous or non-EU Solutions: the Global Repertoire Database and the US Music Licensing Collective

Past attempts to create centralised or coordinated data infrastructures illustrate both the opportunities and the pitfalls of possible reform in the European Union. Two of them are of exceptional relevance for the purposes of this deliverable.

The first is the so-called GRD, which was a multi-stakeholder initiative, started in 2008 under the auspices of the European Commission and involving music publishers, CMOs, and tech companies. Major members of the GRD project were Universal, EMI Music Publishing, PRS for Music (UK), STIM (Sweden), SACEM (France), as well as Apple, Nokia and Amazon. In a nutshell, the GRD sought to establish a central database documenting owners, beneficiaries, and administrators of lyrical and musical copyrights. Although the concept of the GRD appeared straightforward and necessary, the whole project failed in 2014, due to the technical complexity of integrating such vast global rights data, and, even more importantly, due to the divergent interests of the European collecting societies involved, especially over issues of governance, control, and data ownership.

From a technical point of view, in the absence of music metadata standards, the major obstacle was the integration of data from numerous sources, each with distinct formats, standards, and quality levels. This proved to be an extremely complex, labor-intensive and contentious process that did not allow to resolve discrepancies such as conflicting ownership claims. As far as governance was concerned, moreover, the participants did not agree on who should govern or operate the GRD and how the building of its data infrastructure should have been funded.⁷

The second solution is the creation of the US Mechanical Licensing Collective (MLC)⁸ under the 2018 Music Modernization Act⁹ (MMA). Compared to the GRD, the MLC provides a different model: a single, publicly accessible database funded by music streaming services and backed by statutory obligations requiring rightholders to provide accurate data about their respective mechanical rights. The MLC is designated by the US Copyright Office to oversee a blanket licensing system for the clearance of mechanical rights in musical works made available through streaming services.

⁷ See Klementina Milosic, 'GRD's Failure' (2 August 2015, *Music Business Journal*) <<https://www.thembj.org/2015/08/grds-failure/>>.

⁸ The MLC website provides further information, see <<https://www.themlc.com/>>.

⁹ The text of the three titles of the MMA is available at <<https://www.copyright.gov/music-modernization/>>.



D5.1 – Music Copyright Infrastructure

Building and maintaining a comprehensive musical works database is one of the MLC's core responsibilities. This a public, comprehensive, and transparent musical works database that aims to: (i) serve as a centralised repository for ownership and rights information on musical works; (ii) link musical works to their associated sound recordings and rights holders; and (iii) ensure that composers and publishers are accurately and efficiently remunerated. The publicly accessible character of this resource allows stakeholders across the music industry to verify rights ownership and facilitate more accurate royalty payments. Interestingly, as mentioned above, the MMA requires streaming service providers to collectively finance the MLC's operations, including the creation and maintenance of its database, licensing activities, and royalty distributions.

From an economic perspective, this funding model reflects the understanding that MSSs benefit from a centralised system that reduces the complexity and liability associated with licensing as well as the removal of potential liability for non-payment of mechanical royalties. From a legal perspective, while balancing incentives in the music data system and enhancing transparency, this model is limited to the clearance of US mechanical rights that are acquired by music publishers and which were historically handled by a company, the Harry Fox Agency, entrusted with these rights.¹⁰ This means that MLC's database does not cover the public performance rights and the related data under the control of 'mere' performing rights organisations ('PROs') such as ASCAP, BMI and PRS.¹¹ Moreover, the MLC's statutory licence does not apply to the clearance of rights in musical works used by social media platforms, whose persisting protection from copyright liability under Section 512 of the Digital Millennium Copyright Act (DMCA) places them in a different bargaining position.

2.6. Control Over Data Infrastructures and the Need for Shared Standards

A central finding emerging from Fair MusE's research is that control over metadata and rights information constitutes a form of market power. CMOs, IMEs, major publishers, major labels, and large online platforms all act as keepers of essential datasets, but none has a comprehensive overview of the *entire* value chain and provides metrics on how to properly link music metadata to the value being created by digital platforms. Their proprietary systems create barriers to transparency and 'appropriate and proportionate' remuneration.

This section briefly examines how music publishing and recording rights data could be made interoperable and better match the usage data held and provided, with different degrees of granularity, by major tech platforms.

¹⁰ The Harry Fox Agency (HFA) is now one of the MLC's vendors and performed tasks to help the MLC prepare for the implementation of the new statutory licence regime as of 2021. The HFA has helped the MLC by sharing its musical works data, which was used to start building the new public musical works database, and providing technical support to create the MLC's data-matching and revenue distribution process. For more information, see: <https://www.harryfox.com/hfa-and-the-mlc>.

¹¹ This means that the MLC does cover CMOs' rights where these societies administer mechanical rights. That is why the MLC lists SACEM, GEMA, SIAE, SGAE, STIM and other European CMOs as clients.



D5.1 – Music Copyright Infrastructure

This section outlines: (i) current industry realities and Fair MusE's empirical findings (cf. §6.1); (ii) the EU's legal framework for data protection and open data (cf. §6.2); (iii) proposed solutions to the problems of music data ownership and control and poor metadata quality (cf. §6.3).

2.6.1 State of the Art: Fair MusE's Empirical Findings

A platform-dominated digital economy gives major streaming and social media companies substantial leverage over music rightholders. A core problem raised by the data-driven dimension of recorded music exploitations across online exploiters' services is the different level of compatibility of platforms' music consumption data with the music industry content identifiers.

From the outset, MSSs relied on the recording industry's standard repertoire identifiers (ISRCs) and reporting formats (DDEX) when transferring their usage information to music rights-holders. Social media platforms, instead, partially operated outside music copyright licensing frameworks for more than a decade. This was due primarily to the competitive advantage created by the copyright liability exemption granted to hosting service providers under Article 14 Directive 2000/31 (e-Commerce Directive). As pointed out by Fair MusE's research, the endless controversies and inconsistencies across national jurisdictions which characterised the application of this liability exemption to social media platforms were at the core of 'value gaps' debates and the proposal and adoption of Article 17 of the DSM Directive.¹²

Another important factor triggering (if not justifying) these historic delays and social media's reluctance to collaborate with the music industry was a technical design of user interfaces (and the related Terms of Service) where the metadata for user-generated content (UGC) was ultimately submitted (and, in theory, checked) by users acting as content creators. In these UGC metadata realities, the rights information systems developed by YouTube (*Content ID*) and, at a much later stage, Meta (*Rights Manager*) and ByteDance (*Sound ID*) progressively enabled these companies to distinguish professional recordings - for which they need licences from their respective rightholders - from user-created works whose licensing and metadata conditions can be freely determined by their respective authors.¹³

Figure 3 seeks to describe this scenario, considering its evolution in light of market and technical developments, and the effect of Article 17 of the DSM Directive on data collaboration between stakeholders.

¹² See Fair MusE EU Copyright Study, Section 5.1.2.

¹³ These rights information systems are further explained in Fair MusE EU Copyright Study, Section 8.3.2.



D5.1 – Music Copyright Infrastructure

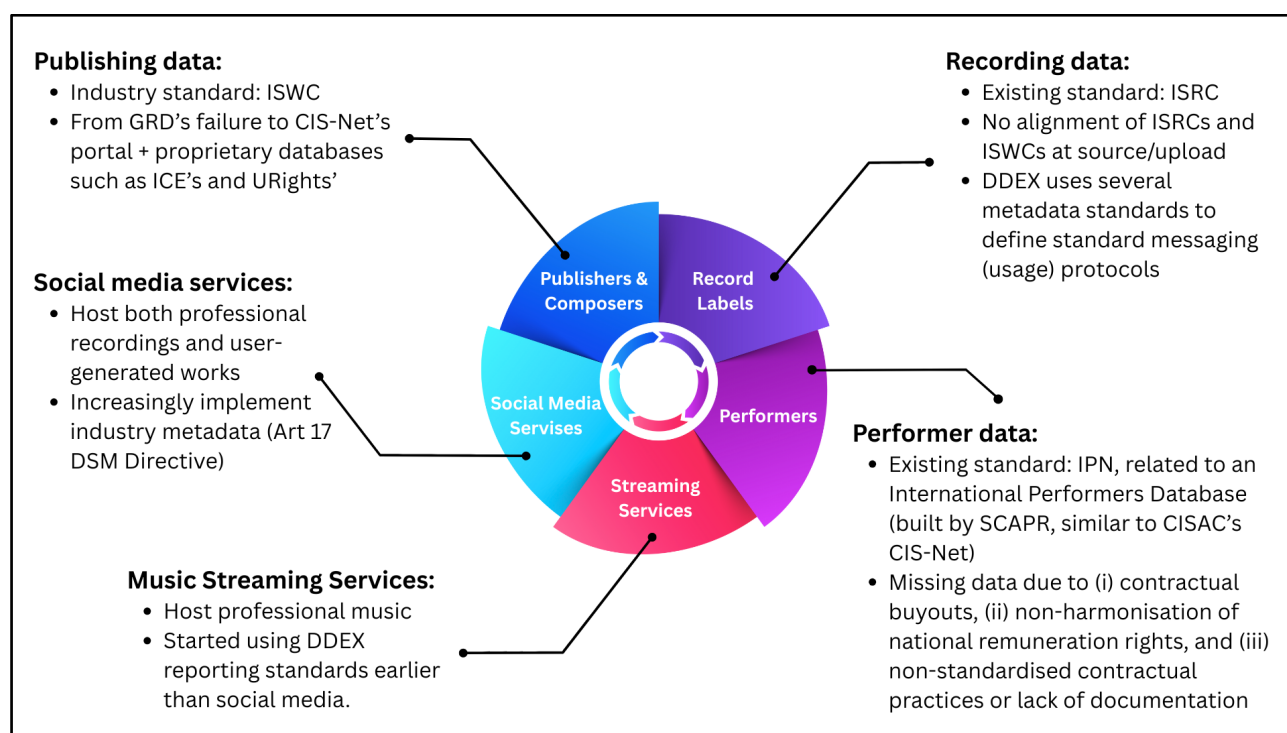


Figure 3: Limited data interoperability and standardisation

Fair MusE's empirical research and the Task Force's multi-stakeholder dialogue confirm the improvements made on this front because of the implementation of Article 17 DSM Directive at the national level. Showing a stronger commitment to transparency and copyright compliance, social media companies have progressively adopted the recording industry's reporting standards, getting more involved in DDEX's governance system. Despite these improvements, however, social media are still far from supplying granular usage data available to rightholders.

Interviews conducted by Fair MusE researchers highlight the frequent offer of "flat-rate" blanket deals, *de facto* bypassing the detailed reporting obligations mandated under EU law provisions embodied in the 2014 CRM Directive and the 2019 DSM Directive.¹⁴ It is obvious that these agreements openly frustrate the function of these transparency obligations and erode music creators' rights to appropriate and proportionate remuneration. This opacity strengthens social media's bargaining position, particularly over weaker actors (CMOs, independent publishers, and small labels) whose auditing capacity is limited.

Figure 4 provides a concise overview of the main legislative provisions in the CRM Directive and the DSM Directive that establish reporting obligations, and highlights the fair balance these provisions seek to foster between music rightholders, their CMOs, and commercial users, such as digital music services.

¹⁴ Specifically, under Art. 17 of the CRM Directive, social media platform providers are required to disclose essential data to CMOs for the collection of rights revenue, as well as for the distribution and payment of amounts due to rightholders. Furthermore, according to Art. 19 of the DSM Directive, these platforms must provide authors and performers with up-to-date, relevant and comprehensive information on the exploitation of their works and performances at least once a year.



D5.1 – Music Copyright Infrastructure

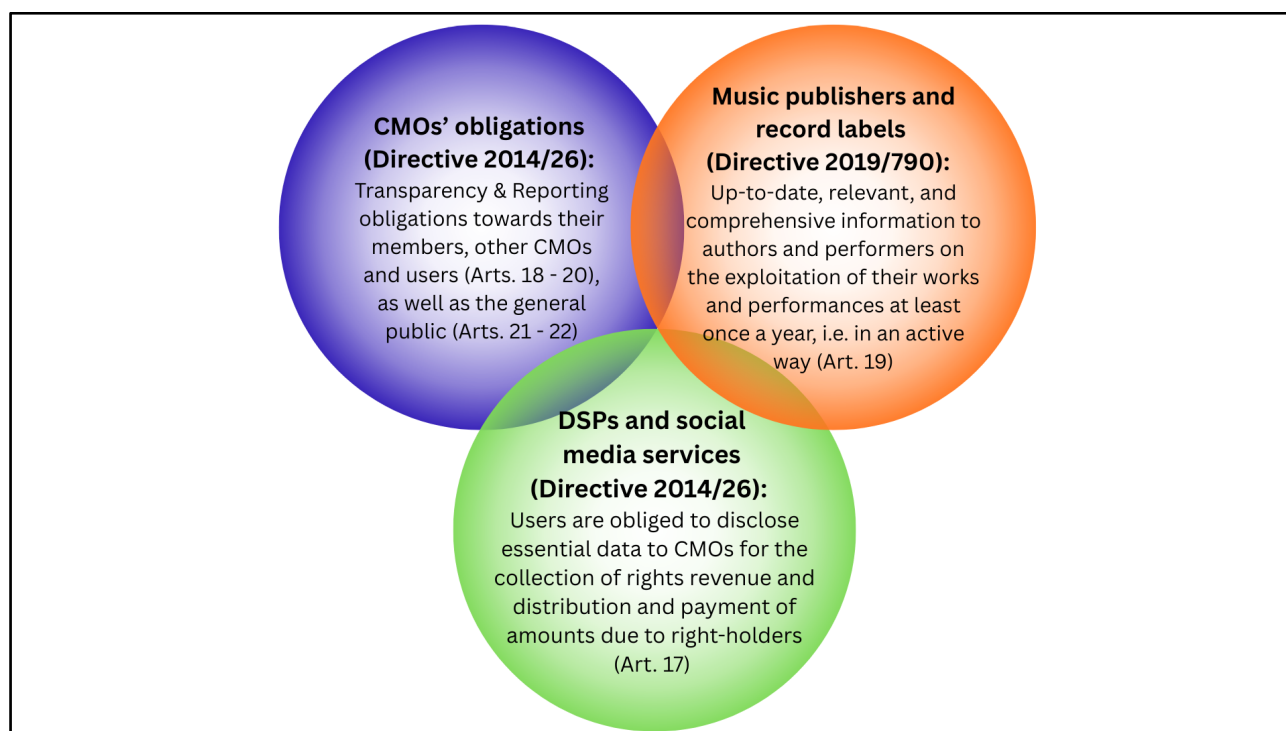


Figure 4: Existing reporting obligations

To conclude on this front: to build trust-based data exchanges between the music industry and the tech sector, and enhance transparency and fairness in the digital music ecosystem, both rightholders and online exploiters shall rely on accurately identified musical works whose identifiers (ISWCs) would need to be included, from the outset, in the metadata supplied with sound recording identifiers (ISRCs).

As shown more in depth below, sound recording metadata are kept distinct from the music composers' and publishers' data sets.¹⁵ This means that these two data layers – being disconnected at source – are bundled *only after usage* through content identification technologies that music data intermediaries such as BMAT, PEX, Orfium, MRI, Nielsen, HarryFox, AudibleMagic, Salt, Heaven11, BackOffice, and others, implement to build 'paired' repertoire databases and help CMOs estimate their repertoire usage on the grounds of tech companies' usage reports referring only to ISRCs.

This technical and market reality shows, on the one hand, that repertoire identification and, therefore, 'appropriate and proportionate remuneration' (cf. Art. 18 DSM Directive) cannot be properly monitored and assessed without a cross-sectoral, interoperable music data infrastructure enhancing data matching and preventing or significantly reducing data mismatches. On the other hand, this situation evidences the competitive advantage and dominance on the market of music licensing hubs that have built, and can rely upon, their own private ISRC-ISWC linked databases.

¹⁵ See Figure 7 (cf. §3.1.5) and Figure 9 (cf. §3.2.2) below.



D5.1 – Music Copyright Infrastructure

2.6.2. Data Law, Trade Secrecy, and the EU Open Data Strategy

A key policy choice concerns whether and how an integrated music data interface should become available to *all* music rightholders and not only to the most resourceful CMOs and their licensing entities. As things stands, these data infrastructures exist as proprietary, stakeholder-restricted systems developed by large repertoire owners and shared by some CMOs and their licensing vehicles with online music services.

Assessing whether such an integrated data infrastructure should also be provided through an open and publicly funded resource requires balancing the interests of the music and tech sectors to determine what information should be openly shared and what may remain confidential. Any such infrastructure must integrate all layers of music rights data in a coherent, vertical manner.

Giving public access to music data whose contents are commercially sensitive and shared under business-to-business (B2B) agreements, and opening up infrastructures that are built through CMOs' and music publishers' private investment would face a complex regulatory landscape in the EU. In this legislative context, data-access obligations coexist with strong protections for personal data, trade secrets, databases (i.e., collections of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means) and confidential information.

Horizontal instruments such as the General Data Protection Regulation (Regulation (EU) 2016/679), and the Data Governance Act (Regulation (EU) 2022/868) govern data handling across sectors, while directives like the Open Data Directive impose obligations on public-sector data. The protection of databases under copyright law required under Directive 1996/9/EC and the 2016 Trade Secrets Directive (Directive (EU) 2016/943) equally play a central role, given their broad applicability—respectively—to data collections and the confidential business information which comes with this data.¹⁶

The findings of a European Commission-funded study published in 2022 are instructive here.¹⁷ Combining theoretical analysis with surveys and interviews across several industries, this study shows that companies hesitate to share commercially valuable data due to concerns about losing competitive advantage.¹⁸ This reflects Arrow's "information paradox": to create value, firms must disclose data, but disclosure itself diminishes exclusivity.¹⁹ The study notes that IP regimes—including copyright and sui generis database rights—offer uncertain or limited protection for business data. However, firms view IP rights as useful alongside contractual safeguards, especially non-disclosure agreements (NDAs).

¹⁶ Fair MusE EU Copyright Study, Section 8.5.2.

¹⁷ Alfred Radauer and others, 'Study on the legal protection of trade secrets in the context of the data economy: final report' (European Commission 2022) <https://op.europa.eu/en/publication-detail/-/publication/c0335fd8-33db-11ed-8b77-01aa75ed71a1/language-en>.

¹⁸ Tanya Aplin and others, 'The Role of EU Trade Secrets Law in the Data Economy: An Empirical Analysis,' (2023) 54 IIC 826, 831. See also Radauer and others (n 17) 57-58.

¹⁹ See Kenneth Arrow, 'Economic welfare and the allocation of resources for invention' (1962) Universities-National Bureau Committee for Economic Research. Committee on Economic Growth of the Social Science Research Council 609.



D5.1 – Music Copyright Infrastructure

Trade secrets law remains the principal shield against misappropriation, though enforcement challenges persist, particularly across borders and within national implementations of the Trade Secrets Directive. The study suggests that trade secrets law can support safer B2B data-sharing, but greater clarity from national courts and the CJEU is needed on the scope of ‘trade secrets’ and on the “reasonable steps” required under EU law for their legal protection. Without this, the interaction between trade secrecy and other *erga omnes* rights—such as copyright and database rights—remains difficult to manage contractually.

The EU’s Data Strategy could come into play for the development of a public or publicly funded music data repository aimed at interconnecting proprietary databases and filling structural data gaps characterizing the current picture.²⁰ Launched in 2020 to build a single market for data, the strategy envisions “Common European Data Spaces” in areas of strategic public interest—health, agriculture, energy, mobility, finance, public administration, skills, and research, among others.

While no sector-specific data space currently exists for music or the cultural and creative industries as such, the model envisaged by the EU Data Strategy provides a relevant governance blueprint for facilitating voluntary data availability, interoperability, and governance through shared tools, pooling services, and transparent access and processing rules. Recent legislation, including the 2022 Data Governance Act and the Data Act (Regulation (EU) 2023/2854), already establishes mechanisms for fair access and re-use of data, including within cultural and creative sectors. In this sense, although these legislative instruments do not confer a general right of access to proprietary or confidential music exploitation data, they may enable the emergence of trusted intermediaries and public-interest data infrastructures capable of improving interoperability and reducing information asymmetries in the music sector.

2.6.3 Enhancing Music Data Accessibility and Improving Metadata Quality

Given the above-mentioned EU law framework, infrastructures such as the “Common European Data Spaces” could emerge in media, cultural heritage, and creative content domains, including the recorded music sector. As highlighted in Fair MusE’s EU Copyright Study, EU copyright law already recognises the economic value of rights management information.²¹ The InfoSoc Directive (Directive 2001/29/EC) protects metadata attached to works under its Article 7.²² Moreover, the 2014 CRM Directive strengthened CMOs’ capacity

²⁰ Communication from the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, ‘A European strategy for data’ (19 February 2020) COM(2020) 66 final.

²¹ Fair MusE EU Copyright Study, Section 8.5.2.

²² Article 7 of the 2001 InfoSoc Directive, which is often overlooked, reads as follows: “1. Member States shall provide for adequate legal protection against any person knowingly performing without authority any of the following acts: (a) the removal or alteration of any electronic rights-management information; (b) the distribution, importation for distribution, broadcasting, communication or making available to the public of works or other subject-matter protected under this Directive or under Chapter III of Directive 96/9/EC from which electronic rights-management information has been removed or altered without authority, if such person knows, or has reasonable grounds to know, that by so doing he is inducing, enabling, facilitating or concealing an infringement of any copyright or any rights related to copyright as provided by law, or of the sui generis right provided for in Chapter III of Directive 96/9/EC. 2. For the purposes of this Directive, the expression “rights-management information” means any information provided by rightholders which identifies the work or other subject-matter referred to in this Directive or covered by the sui generis right provided for in Chapter III of



D5.1 – Music Copyright Infrastructure

for digital data exchange. Parallel industry initiatives (CIS-Net, DDEX) further enhanced data governance structures.

To be consistent with EU law, without entailing legislative amendments, and be broadly accepted in the music and tech industries, a successful data space should *not* force copyright holders or their rights licensors to surrender control of their proprietary data, given the existing legal framework and commercial sensitivity. The main challenges are, therefore, (i) to determine which metadata can be shared without undermining legitimate business interests (cf. §2.6.3.1) and (ii) how to improve music metadata quality through better production, maintenance and alignment (cf. §2.6.3.2).

2.6.3.1 Music Data-Sharing Models

From a policy perspective, a music-specific data space could evolve either (i) by connecting and upgrading existing metadata infrastructures or (ii) through new industry-driven or regulatory initiatives built from the ground up.

(i) Metadata Search and Enhancement Tool

The failure of the GRD in 2014 demonstrates that a single centralised proprietary database is unrealistic due to unstable metadata quality and constant rights transfers. A viable alternative to this model could be a neutral search and enhancement interface—a “metadata buffer”—that queries multiple independent databases without extracting or centralising their contents. To function effectively, this model requires market-power neutrality; independence of all linked databases; incentives to exchange metadata without payment; and technical safeguards preventing database “drain” or replication.²³

(ii) Centralised EU Metadata Repository

A different proposal envisions an EU-wide, public metadata repository administered by a body such as the EUIPO. The authors of such a proposal argue that Article 17(4)(b) DSM Directive provides a basis for mandatory standardised metadata.²⁴ However, this legal reading and insight is only partially correct if one considers that Article 17 obligations under the DSM Directive are designed to be balanced and reciprocal, not solely burdening rightholders. It seems evident that a music data repository built only on the notifications supplied by copyright holders would place disproportionately high costs on the music sector

Directive 96/9/EC, the author or any other rightholder, or information about the terms and conditions of use of the work or other subject-matter, and any numbers or codes that represent such information. The first subparagraph shall apply when any of these items of information is associated with a copy of, or appears in connection with the communication to the public of, a work or other subject matter referred to in this Directive or covered by the sui generis right provided for in Chapter III of Directive 96/9/EC.”

²³ The German Ministry of Justice and Consumer Protection commissioned a study for a model based on the metadata search and enhancement tool from a working group at the University of Potsdam. EMR Platform: Conception of a European, Decentralised Copyright Platform for Music <<https://lswi.de/assets/images/presse/zentrum/Copyright-Conference.pdf>>.

²⁴ Martin Senftleben and others, ‘Ensuring the Visibility and Accessibility of European Creative Content on the World Market: The Need for Copyright Data Improvement in the Light of New Technologies and the Opportunity Arising from Article 17 of the CDSM Directive’ (2022) 13 JIPITEC 67-86.



D5.1 – Music Copyright Infrastructure

without adequately considering the benefits granted to the social media industry through this (free) data space.

Given the accountability obligations imposed on platforms under Article 17 and, even more so, from a structural point of view, the transparency obligations created for online intermediaries and very large online platforms (VLOPs) under the Digital Services Act, Online Content-Sharing Service Providers (OCSSPs) themselves should bear a significant share of the costs entailed by creating and maintaining such a music metadata repository, just as MSSs fund the MLC in the United States. This is evidenced - although not explicitly with regard to copyright-specific usage metadata - by the obligations the Digital Services Act (Regulation (EU) 2022/607; DSA) establishes for online intermediaries and qualified VLOPs.²⁵ Moreover, as highlighted in Figure 5 below, mandatory metadata standardisation including both music metadata and online usage metadata shall be the natural outcome of existing reporting and data-sharing obligations embodied in the 2014 CRM Directive and the 2019 DSM Directive (i.e. not only under Article 17).

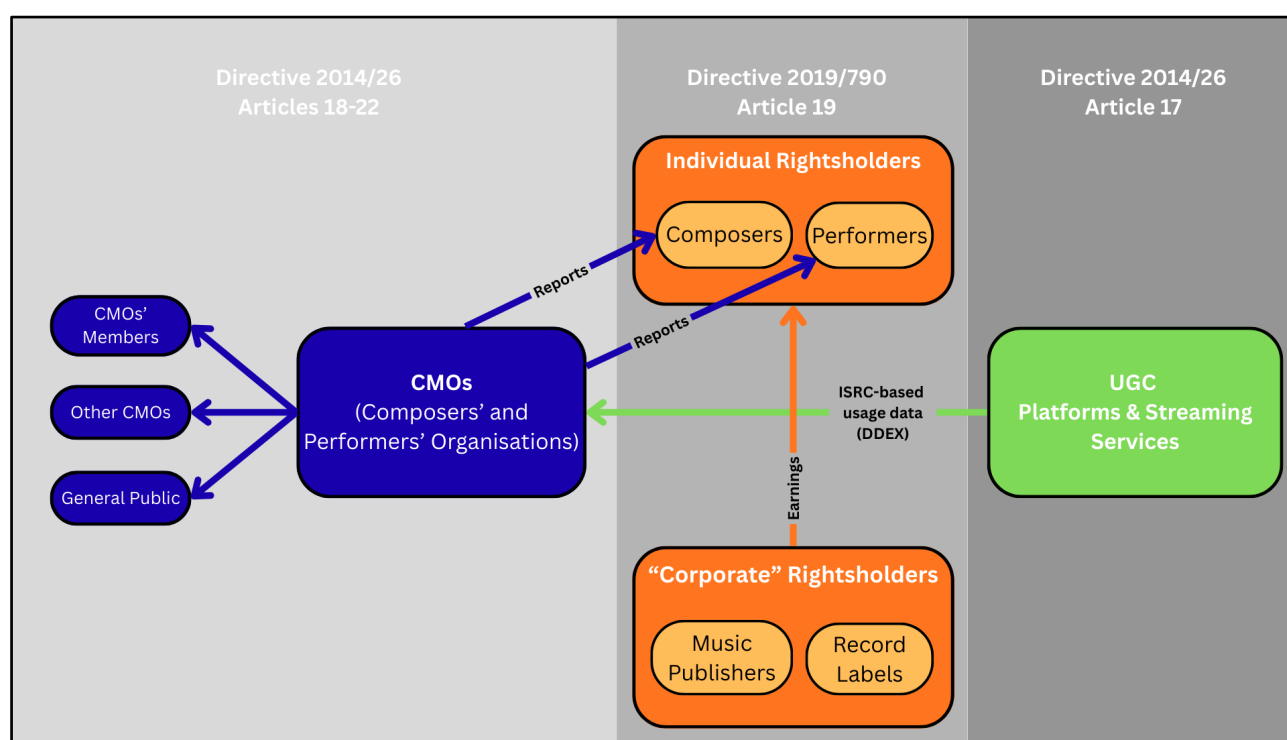


Figure 5: Existing data-sharing obligations in the digital music industry

2.6.3.2 Improving Metadata Production, Maintenance, and Alignment

Rights management is costly, particularly due to inefficiencies in music metadata handling. As emphasised above, complexity is structural because publishing and recording rights rely on distinct data standards and governance systems and creators' initial data input is poor, unformatted and sporadic. The European Commission is aware of major deficiencies in

²⁵ See §3.1.4.



D5.1 – Music Copyright Infrastructure

metadata production and maintenance, as evidenced by an important Study published in 2022.²⁶

To resolve or mitigate these problems, a radical improvement of music metadata quality would be essential for the purpose of any of the above-mentioned data-sharing solutions. This goal entails improvements in data production, maintenance and alignment across the industry's value chain.

So far, the most relevant and promising effort in this direction is the 2023 UK Industry Agreement on Music Streaming Metadata, a government-facilitated but voluntary compact that sets out a coordinated framework for improving metadata quality across the value chain.²⁷ The Agreement defines a core data set to accompany all new recordings on streaming services—covering recording and work titles, ISRC, writer and performer information, and preferred identifiers such as IPI, ISNI and ISWC.

The UK Agreement establishes a Code of Good Practice outlining role-specific duties for creators, managers, publishers, studios, CMOs, labels, and service providers, and introduces a governance structure comprising a Steering Group, chaired by the Intellectual Property Office (IPO), and two Expert Working Groups on education and technical solutions. These groups are tasked with developing Key Performance Indicators (KPIs) within six months, improving identifier availability, promoting early and complete metadata capture, and exploring authoritative ISRC–ISWC linkage systems.

While non-statutory, the UK Agreement illustrates how a state-supported, cross-industry governance model - combining shared standards, monitoring mechanisms, and targeted capacity-building - can drive incremental but meaningful improvements in metadata completeness and interoperability.

Other relevant initiatives in this field have concerned the enhancement of metadata literacy among creators, rightholders and music industry professionals and the implementation of emerging technologies, including AI, in the automation and improvement of metadata creation and validation.²⁸

²⁶ See Directorate-General for Communications Networks, Content and Technology, 'Study on Copyright and New Technologies: Copyright Data Management and Artificial Intelligence' (2022) SMART 2019/0038. Key problems highlighted in this Study include: ex post matching of publishing and recording metadata, which is very costly and never fully accurate; music data duplication, which produces confusion, delays, and misattribution; and metadata capturing, which demands expensive curation, especially for legacy repertoires.

²⁷ UK Intellectual Property office, 'United Kingdom Industry Agreement on Music Streaming Metadata' (2 November 2023)

<<https://www.gov.uk/government/publications/uk-industry-agreement-on-music-streaming-metadata/united-kingdom-industry-agreement-on-music-streaming-metadata>>.

²⁸ Examples include the following ones: Blockchain is being explored for transparent, tamper-proof tracking, notably through the European Blockchain Services Infrastructure (see <<https://ec.europa.eu/digital-building-blocks/sites/display/EBSI/Home>>; see also European Commission 'European Blockchain Services Infrastructure'

<<https://digital-strategy.ec.europa.eu/en/policies/european-blockchain-services-infrastructure>>);

ORDE (Open Rights Data Exchange) aims to establish a secure, standardised cross-border system for verifying rights, using Web3 technologies and machine-readable rights certificates (see <<https://ec.europa.eu/digital-building-blocks/sites/display/EBSI/Open+Rights+Data+Exchange>>;

ORDF (Open Rights Data Framework) seeks to bridge identifiers across sectors (ISRC, ISAN, ISBN), reducing silos and supporting a true single market for data (see Directorate-General for Communications Networks, Content and Technology, 'Study on Copyright and New Technologies: Copyright Data Management and Artificial Intelligence' (n 1361272) 109 and Annexes 6-7); and



D5.1 – Music Copyright Infrastructure

2.6.4. High-Level Takeaway

A trusted, interoperable, rights-layered and technologically modern Music Copyright Infrastructure can significantly foster fair remuneration of music creators in the European digital music ecosystem. The EU legal framework offers opportunities but also constraints rooted in trade secrecy and data protection. Possible solutions range from technically enabling neutral search interfaces between proprietary data infrastructures to creating a publicly handled online music data space. For any data-sharing solution, the improvement of music metadata quality, especially in terms of alignment between the data infrastructures of the publishing and recording sectors, seems an indispensable feature. This objective can be achieved also by enhancing creators' and rightholders' metadata literacy and implementing advanced technologies for metadata production and validation.

Fair MusE's Task Force helped the project's research team understand data flows across the music industry and data formats for the necessary information exchanges with the tech sector. As we will see in the next section, the Task Force's roundtable discussions focused on a copyright data infrastructure that can serve the purpose of translating complex platforms' usage reports into remuneration shared more transparently - and therefore more fairly - across multiple copyright ownership layers. Ultimately, meaningful progress requires shared responsibility, including substantial commitments from powerful platforms that currently hold (and withhold) the most critical usage data.

Open Music (Berklee/MIT) previously attempted to standardise rights identification via open-source protocols and APIs, but ended prematurely due to funding constraints (<https://college.berklee.edu/focused/ice/open-music-initiative>).



This project is funded by the European Union's Horizon Europe Framework Programme, under the Grant Agreement no: 101095088

3. Mapping the System: Structural Problems, Historical Roots, and Economic Implications

Fair MusE's Task Force roundtables, enriched by several interviews and one-to-one conversations with stakeholder representatives, including the recording industry, provided a multi-layered diagnostic picture of Europe's music data ecosystem. What emerged is not simply a system burdened by occasional errors or technological delays, but a structurally fragmented environment shaped by distinct historical trajectories, institutional asymmetries, and misaligned economic incentives.

This section synthesises the full set of insights into three interlocking dimensions: today's data flows and flaws (cf. §3.1); the historical reasons that made homogeneity elusive (§3.2); and the economic consequences of these structural configurations (§3.3).

3.1. Status Quo: Music Data Flows & Flaws

Across stakeholder discussions, a broad consensus emerged: today's metadata environment is shaped by fragmentation, asymmetry, and structural opacity. The ecosystem rests on three distinct rights layers—musical compositions, sound recordings, and performances—overlaid by two categories of digital exploiters (MSSs and UGC platforms) and supported by a rapidly expanding constellation of data intermediaries. Despite decades of attempted reforms, the system continues to rely on heterogeneous, partially incompatible data infrastructures that hamper both transparency and fair remuneration across the value chain.

3.1.1 The Recorded Music Layer: Structured and Globally Coordinated

Of all layers, the recording sector is the most technologically mature. This relative coherence stems from a long-standing alignment of identifiers, industry standards, and institutional governance mechanisms.

The ISRC system—coordinated globally by IFPI and implemented nationally through authorised ISRC agencies—is universally applied to commercially relevant sound recordings prior to release. ISRC serves as the foundational identifier for recordings, and its near-universal uptake enables a level of metadata cohesion unmatched in other rights domains. In parallel, IFPI and SoundExchange co-operate the international ISRC database, now containing well over 150 million ISRCs, offering increasingly sophisticated search, verification, and metadata enrichment capabilities.²⁹

The recorded music sector has also consolidated its metadata practices through the adoption of DDEX, whose XML-based messaging standards, grounded in the earlier MI3P

²⁹ The database is accessible at <<https://isrcsearch.ifpi.org/>>.



D5.1 – Music Copyright Infrastructure

project, have become the de facto global norm. DDEX supports high-volume ingestion of usage data from platforms and ensures that record labels and distributors communicate repertoire information in consistent formats.³⁰ Although some CMOs still lack native DDEX-ready systems and must convert data through the Common Data Model (CDM) format, this translation layer does not undermine the overall structural coherence of the recording side.

Major labels and distributors increasingly rely on tools such as RDx (developed with WIN) to centralise ingestion and improve data quality through repertoire cleansing and the shift from product-centric to recording-centric data models.³¹ As a result, match rates for sound recording metadata are high, with few black boxes left for featured performers or producers. The workflow is predictable, pre-release, and largely standardised.

Despite the above-mentioned achievements, discussions within Fair MusE's Task Force highlighted a significant problem stemming from the potentially uncontrolled duplication of ISRCs, which cannot be adequately addressed given that recording identifiers are not managed within a single, authoritative database. Such potentially fraudulent duplications may arise, for example, from catalogue acquisitions, after which new owners issue new ISRCs, or from record labels treating ISRCs as universal product codes (UPCs) and creating new identifiers for each release. These practices may adversely affect both the calculation of the term of protection of sound recordings and the enforceability of rights that depend on the accurate identification of the date of lawful publication or communication to the public of a given recording.

3.1.2 The Music Publishing Layer: Fragmented and Temporally Misaligned

The musical composition layer stands in stark contrast to the relative clarity of the recording sector. Its fragmentation is structural, rooted in century-old territorial collective management frameworks and perpetuated by divergent national catalogue structures, sub-publishing arrangements, and repertoire transfers. CMOs have maintained their own national databases for decades, exchanging information through reciprocal representation agreements. While this system functioned well enough for the offline world—when a simple combination of composer-author-publisher data and titles was sufficient—the shift to digital dramatically increased metadata volumes and clashed with CMOs' mono-territorial online mandates.

CIS-Net, operated by CISAC, serves as a federated verification and exchange network linking more than one hundred CMOs worldwide.³² CIS-Net enables real-time cross-referencing via decentralised nodes and the WID database, with ISWC functioning as the core identifier. However, CIS-Net is neither a unified repertoire database nor a system structurally integrated with recording or performer metadata. This data-exchange network remains accessible only to participating societies, and its architecture reinforces the logic of parallel national datasets rather than a single global registry.

³⁰ More information on DDEX is available on its website, see <<https://ddex.net/>>.

³¹ RDx is a joint venture between IFPI and WIN, which acts as an international network for the independent music industry. For more information on RDx, see <<https://www.rdx-portal.org/>>.

³² See also Fair MusE EU Copyright Study, Section 8.2.1.3.



D5.1 – Music Copyright Infrastructure

The persistent misalignment between the publishing and recording layers is exacerbated by the sequencing of identifiers. ISRCs are assigned pre-release whereas ISWCs are assigned typically only post-release, once CMOs receive sufficient information about authorship and rights splits. This temporal lag is one of the main reasons pre-release ISRC–ISWC pairing remains elusive.

Attempts to overcome structural fragmentation have repeatedly failed. As emphasised above, the GRD was the most emblematic case, whose collapse revealed deep governance conflicts, trust deficits, data ownership disputes, and the sheer technical difficulty of reconciling heterogeneous rights datasets despite the financial support provided by the European Commission.³³

Newer initiatives—such as WIPO Connect,³⁴ CIS-Net 2.0,³⁵ and interconnection efforts by TOWGE³⁶—seek to improve interoperability and music metadata alignment. Among these initiatives, the pilot to link the ISWC to the ISRC at the point of release described by CISAC in its 2025 Annual Report is particularly relevant because it shows CISAC’s commitment for faster and more accurate global royalty distribution. This pilot follows a proof-of-concept by PRS for Music and the testing of this tool with industry partners, followed by a launch phase in 2025 with selected record labels. Further developments of this attempt are expected to follow, although the fundamental territorial logic of musical work rights, combined with the consolidation of proprietary data hubs (ICE, URights, MINT, AMRA, BackOffice, etc.) and the evolving role of IMEs, continues to produce systemic fragmentation, delay, and mismatches that reverberate downstream.

3.1.3 The Performance Layer: Historically Under-Documented and Operationally Burdened

The performer rights layer remains the least harmonised of the three, a consequence of both legal fragmentation and historical under-documentation. While identifiers like IPNs exist, their adoption across markets is inconsistent. Many legacy recordings—especially those involving session or non-featured musicians—lack performer metadata entirely. Decades of analogue studio practices left no standardised mechanism for documenting contributors. As a result, performers’ CMOs shoulder the substantial burden of reconstructing line-ups, often expending disproportionate resources for modest financial returns.

Recent improvements arise largely from SCAPR’s establishment of two global tools: the International Performers Database (IPD), which assigns unique IPNs and enables cross-border identification; and the Virtual Recording Database (VRDB), which facilitates exchange of recording-related performer data. These infrastructures create an important,

³³ See Fair MusE EU Copyright Study, Section 8.2.1.1.

³⁴ Further details on WIPO Connect are available at <<https://www.wipo.int/en/web/wipo-connect>>.

³⁵ For more information about CIS-Net 2.0, see the key highlights of CISAC’s 2025 Annual report at <<https://www.cisac.org/Newsroom/annual-reports/2025-annual-report>>.

³⁶ See Daniel Sanchez, ‘Pan European Collecting Societies Agree on Standards for Digital Royalty Processes’ (26 July 2019, Digital Music News) <<https://www.digitalmusicnews.com/2019/07/26/towge-digital-royalty-group/>>.



D5.1 – Music Copyright Infrastructure

albeit still incomplete, analogue to CIS-Net for performers.³⁷ Yet structural barriers persist. EU remuneration rights for performers are only partially harmonised, with divergent national rules governing equitable remuneration, private copying, and online rights. Reciprocal agreements between performer organisations do not always result in meaningful data exchange. In many cases, only incomplete information is transferred, leading to inaccurate distributions and expanded black boxes.

Despite these weaknesses and legal inconsistencies, the inclusion of performers' rights data in a Music Copyright Infrastructure applicable in digital markets, which is the main goal of this deliverable, is eventually mandated - as a matter of consistency and data interoperability - by existing law provisions that establish remuneration rights either at the EU or national level:

- As far as EU law is concerned, the infrastructure shall duly consider the additional remuneration rights created by Directive (EU) 2011/77 (the Term Extension Directive). Under Article 1(c) of this Directive, record labels are required to reserve 20% of the additional revenues generated by the extension of the term of protection for sound recordings (from 50 to 70 years) for so-called “session musicians”. As clarified in Recital 9 of the Directive, these are performers who are remunerated through a one-off (i.e., non-recurring) payment, which is typically the case for musicians who perform in the background and do not appear in the credits (“non-featured” performers). Since the additional remuneration right also covers online revenues, establishing a reliable link between ISRCs and IPNs constitutes the only evidence-based means by which performers' organisations can obtain the relevant data from the recording industry and determine which of their members are entitled to such remuneration, as well as the amount of revenue due to each of them.
- At the national level, it should also be taken into account that a structural link between recording identifiers and performers' identifiers constitutes a technical necessity for the enforcement of statutory regimes establishing remuneration rights (for example, in Spain and Belgium, and - limited to social media exploitations - in Germany), as well as for the implementation of mandatory collective agreements (as in France, Hungary, and Croatia) applicable to online music exploitations in several EU Member States.³⁸

³⁷ A brief overview of both the IPD and the VRDB is provided on SCAPR's website, see <<https://www.scapr.org/services/>>.

³⁸ The statutory remuneration rights introduced by Spain in 2006 and in Belgium and Germany, as a result of the transpositions of the DSM Directive, including the constitutional challenges these rights have raised, are explored further in Section 4.3.2 of the Fair Music EU Copyright Study. This section of the Study also examines the approach undertaken by France, which foresees mandatory collective bargaining to ensure minimum remuneration for performers, in both online and offline settings. The French solution is similar to that of other EU countries, like Hungary and Croatia, which were not included in Fair MusE's comparative law analysis. Another source - focusing on the European audiovisual sector - reporting how several EU Member States (including Slovenia) incorporate remuneration rights related to online exploitation of their works, is Amélie Lacourt, Justine Radel-Cormann, Sophie Valais, 'Fair remuneration for audiovisual authors and performers in licensing agreements' (2023) IRIS Plus, European Audiovisual Observatory 42<<https://rm.coe.int/iris-plus-2023-03en-fair-remuneration-for-creators-in-exploitation-con/1680addf8c>>.



D5.1 – Music Copyright Infrastructure

3.1.4 MSSs vs UGC Platforms: Two Divergent Data Cultures

The digital music exploitation landscape is split between two fundamentally different data cultures:

- MSSs such as Spotify, Apple, and Deezer generally conform to DDEX-based workflows. They ingest and report usage data in structured formats aligned with ISRC and, where possible, ISWC. Their business models depend on predictable licensing relations, and their reporting practices—though not without flaws—are comparatively granular and auditable.
- UGC and social media platforms operate under entirely different logics.³⁹ Historically shielded by broad liability exemptions under the 2000 e-Commerce Directive in the EU and the 1998 DMCA in the US, these services built proprietary content-identification systems without having an incentive or an obligation—at least until the implementation of Article 17 of the DSM Directive – to associate digital contents to existing music industry identifiers. Having been structurally designed to host and boost the distribution of user-uploaded materials, these services let their respective users describe their works through unchecked – and, often, incomplete or just inaccurate – data, i.e., without incorporating professional music metadata. At least initially, YouTube’s Content ID, Meta’s Rights Manager, and ByteDance’s Sound ID relied on fingerprinting and reference files to prevent copyright infringement rather than ISRCs or ISWCs.

This divergence has serious consequences since UGC usage reporting data remains inconsistent, non-granular, and often opaque, especially for music publishing and performer rights. Even after the implementation of Article 17, several platforms provide incomplete or poor usage information, as flagged by several CMOs during interviews with Fair MusE’s researchers. Manipulation of metadata by users (“Sound ID fraud” in TikTok’s case⁴⁰) further undermines accuracy.

UGC platforms’ metadata schemes are neither standardised nor publicly available. The net result is that these platforms remain the poorest and most opaque link in the data chain, limiting the sector’s ability to implement the transparency and fairness objectives mandated by EU law.

Although not specifically designed for the creative industries, multiple data-sharing schemes and transparency obligations embodied in the DSA could be deployed by the music sector to obtain greater access to data from the largest social media platforms. These provisions could be relevant for the acquisition of usage metadata and other information that can give rightholders more reliable metrics on the use of their respective works and more details on potential infringements of their rights.

³⁹ See Fair MusE EU Copyright Study, Section 8.3.2.

⁴⁰ See also Courtney Moriarty, ‘Sound ID fraud on TikTok: Exposing how uploaders avoid copyright claims’ (21 November 2024)

<<https://pex.com/blog/sound-id-fraud-on-tiktok-exposing-how-uploaders-avoid-copyright-claims/>>.



D5.1 – Music Copyright Infrastructure

From a general point of view, the DSA - AGORA, adopted pursuant to Article 85 DSA,⁴¹ specifies technical modalities for the exchange of reliable and interoperable information between Digital Services Coordinators (who are responsible for supervising, enforcing and monitoring the DSA) and the European Commission.⁴² While this data-sharing framework is horizontal, it may also include data related to copyright infringement notices. More importantly for the music sector, AGORA shows that the DSA already operationalises a centralised public infrastructure for interoperable, platform-generated data that can serve as a structural precedent for transparency mechanisms.

From a more specific point of view, Articles from 14 to 17 of the DSA oblige online intermediaries to provide regular information regarding their services' terms and conditions and the complaints, judicial orders and decisions concerning content moderation. Article 17 is particularly relevant because it has given rise to the DSA transparency database, providing open access to platforms' statements of reasons for their content moderation decisions.⁴³ Logically, these decisions include copyright infringement notices. Although the data stored in this database is not standardised, the application programming interfaces (APIs) created for transferring the data from the platforms to the database entail a certain level of standardisation.

Other DSA provisions whose enforcement can be meaningful for the music data ecosystem and for right-holders to better understand how the social media industry exploits their works are embodied in the following provisions:

- Article 27 targets recommender systems by obliging online platforms to explain in their terms and conditions the main parameters used, as well as any options for users of their services, to modify or influence those main parameters.
- Articles 34 and 35 oblige providers of very large online platforms and of very large online search engines to diligently identify, analyse and assess any systemic risks caused by the design or functioning of their services and the related features, including algorithmic systems, or by the use of their services and to implement reasonable, proportionate and effective risk mitigation measures.
- Finally, Article 40 establishes a legislative framework fostering access and scrutiny not only for the Digital Services Coordinators or the Commission to monitor and assess compliance with the DSA but also for vetted researchers to detect, identify

⁴¹ Art. 85(1) DSA reads as follows: "The Commission shall establish and maintain a reliable and secure information sharing system supporting communications between Digital Services Coordinators, the Commission and the Board. Other competent authorities may be granted access to this system where necessary for them to carry out the tasks conferred to them in accordance with this Regulation."; the practical rules for AGORA are set out by Regulation (EU) 2024/607.

⁴² See European Commission, 'DSA - AGORA: data-sharing platform between Digital Services Coordinators and the Commission ready for operation' (16 February 2025) <<https://digital-strategy.ec.europa.eu/en/news/dsa-agora-data-sharing-platform-between-digital-services-coordinators-and-commission-ready>>.

⁴³ More general and technical information on the database is available on the FAQ page, see <<https://digital-strategy.ec.europa.eu/en/faqs/dsa-transparency-database-questions-and-answers>>.



D5.1 – Music Copyright Infrastructure

and understand the above-mentioned systemic risks and assess the adequacy, efficiency and impact of the risk mitigation measures.

The above-mentioned legal framework can help music right-holders and the authorities enforcing the DSA improve the traceability of music consumption and the quality and level of detail of relevant data. This means that the existing legislation can produce - if properly enforced - more accessible, reliable and precise figures for rightholders and policy makers to estimate the exploitation of copyright works, with an increased level of transparency across the value chain, to the benefit of its most vulnerable rightholders (i.e., composers and performers).

All the above-mentioned information could be stored and made available to interested parties, vetted researchers or, wherever possible, the public at large, through an EU Music Data Space that - as proposed in Fair MusE's White Paper (D5.4) - could be a branch of the (future) EU Cultural Data Hub. Such a Data Space would be a very suitable resource where the European Commission - possibly through a newly created 'European Music Observatory' - could further develop the potential of the existing legislation. For instance, the existing law includes the Digital Markets Act (DMA), which can complement the DSA to enhance interoperability of music data sets by giving rightholders mandatory access to the data of platform services qualifying as a 'gatekeeper' under the DMA. As emphasised in Fair MusE's D2.3, the mandatory data access and the FRAND-based technical access granted to business users, respectively, under Article 6(10) and 6(12) of the DMA can be useful for music rightholders (acting as business users) to have reliable benchmarks for the use of their works.⁴⁴

3.1.5 The Role of Intermediaries: Filling Structural Gaps

Because no layer of the chain supplies complete and interoperable data, intermediaries have become indispensable.⁴⁵ Companies like BMAT, PEX, Fairphonic, and Salt provide large-scale matching, monitoring, and reconciliation services. They detect uses of recorded music across hundreds of platforms, identify underlying works, and attempt to resolve gaps in ISRC-ISWC pairing or ownership splits. Their databases frequently integrate multiple rights layers and usage feeds, effectively performing tasks that neither labels, CMOs, nor MSSs execute comprehensively at source.

The table in Figure 6, provided by former Fair MusE partner Verifi Media (which ceased business operations in February 2025) illustrates the value of music data collaboration. The original diagram demonstrates how the "Verifi composite" was significantly more valuable for both rightholders and commercial users. As shown in the table, this data composite, relating to a recording titled "*When Boy Meets Girl*," provides simultaneous access to a full and comprehensive dataset for the recording.

The different data elements included in the composite originate from both publishing and recording data. They relate to the musical work title ("*When Boy Meets Girl*"), its ISWC, its composer (Pharrell Williams), and music publisher information (EMI Pop Music Publishing

⁴⁴ Marta Cantero Gamito, Gil Dagan, Maria Jose Schmidt-Kessen, and Eirini Volikou, 'Roles of EU competition law and platform regulation across online music platforms', D2.3, Fair MusE (2025).

⁴⁵ See also Fair MusE EU Copyright Study, Section 8.3.3.



D5.1 – Music Copyright Infrastructure

and Waters of Nazareth Publishing), together with other identifiers such as writers' and indirect contributors' IPs. These identifiers are only partially available - or, in some cases, not available at all - to the various actors operating in the digital music market, including digital service providers (DSPs), the record label, the music publishers, and the performing rights organisations (PROs).

Description	DSP	LABEL	PUBLISHER	PRO	VERIFI COMPOSITE
Work Title	---	---	When Boy Meets Girl	When Boy Meets Girl	When Boy Meets Girl
ISWC	---	---	---	T9185906245	T9185906245
Work Code	---	---	WW004898785000	WW004898785000	WW004898785000
Writers/Indirect Contributors	---	B. Gibb C. Hugo K. Spivey M. Gibb M.Scandrick P. Long P. Williams O.Parker R. Gibb T. Lucas	Williams, Pharrell L., 00243778641 Combs, Sean, 00334934848 Gibb, Barry Alan, 00011811727 Gibb, Maurice, 00011811825 Gibb, Robin, 00011812038 Hugo, Chad, 00344055189 Long, Robbie, 00136622289 Lucas, Tammy, 00126913968 Parker, Quinnes Daymond, 00337610571 Spivey, Keisha, 00189204552 Scandrick, Marvin, 00337611470	Williams, Pharrell L.	Williams, Pharrell L., 00243778641 Combs, Sean, 00334934848 Gibb, Barry Alan, 00011811727 Gibb, Maurice, 00011811825 Gibb, Robin, 00011812038 Hugo, Chad, 00344055189 Long, Robbie, 00136622289 Lucas, Tammy, 00126913968 Parker, Quinnes Daymond, 00337610571 Spivey, Keisha, 00189204552 Scandrick, Marvin, 00337611470
Publishers	---	---	Waters of Nazareth Publishing, 00192989113	Emi Pop Music Publishing Waters of Nazareth Publishing	Emi Pop Music Publishing Waters of Nazareth Publishing, 00192989113
Main Artist	Total	Total	---	---	Total
Contributors	---	112, Background Vocals Chad Hugo, Producer Doug Wilson, Second Engineer Paul Logus, Mixer Pharrell Williams, Producer Sean "Puffy" Combs, Producer Tammy Lucas, Vocal Producer Total, Vocals	---	Pharrell Williams	112, Background Vocals Chad Hugo, Producer Doug Wilson, Second Engineer Paul Logus, Mixer Pharrell Williams, Producer Sean "Puffy" Combs, Producer Tammy Lucas, Vocal Producer Total, Vocals
Track Title	When Boy Meets Girl	When Boy Meets Girl	When Boy Meets Girl	---	When Boy Meets Girl
ISRC	USBB40581141	USBB40581141	---	---	USBB40581141
Release Title(s)	1. Do You Think About Us & When Boy Meets Girl 2. Total	1. Do You Think About Us & When Boy Meets Girl 2. Total	Total	---	1. Do You Think About Us & When Boy Meets Girl 2. Total
Release EAN/UPC(s)	1. 603497926480 2. 603497927555	1. 603497926480 2. 603497927555	---	---	1. 603497926480 2. 603497927555
Label(s)	Rhino Atlantic	Rhino Atlantic	---	---	Rhino Atlantic

Figure 6: Verifi Media's 'Power of data collaboration'

Parallel to data brokers, digital distributors or 'aggregators' - such as FUGA, TuneCore, DistroKid, CD Baby, among others - play critical roles in metadata supply for DIY (Do It Yourself) artists. A significant highlight from this market is that Universal Music Group (UMG) is currently seeking to acquire Downtown Music Holding, which includes its B2B distributor FUGA. On 22 July 2025, the European Commission opened an in-depth investigation to, among other aspects, assess whether this merger would allow UMG to reduce competition in the wholesale distribution of recorded music market in the European Economic Area by acquiring commercially sensitive data from rival record labels.⁴⁶

As shown in Figure 7 (which is the author's own elaboration of a table received from IFPI), aggregators act as the main entry points for DIY's repertoire into streaming and social media platforms, collect ISRC-based metadata, and mediate usage reports back to independent artists. For this specific category of rightholders, these companies often serve simultaneously as record labels, data stewards, and rights reporting intermediaries. However, as critically remarked during the Task Force discussions, the "frictionless"

⁴⁶ See European Commission, 'Commission opens in-depth investigation into the proposed acquisition of Downtown by UMG' (22 July 2025) Press release

<https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1875>.



D5.1 – Music Copyright Infrastructure

approach to data embraced by aggregators/distributors has ultimately made the DIY markets metadata exceptionally poor.

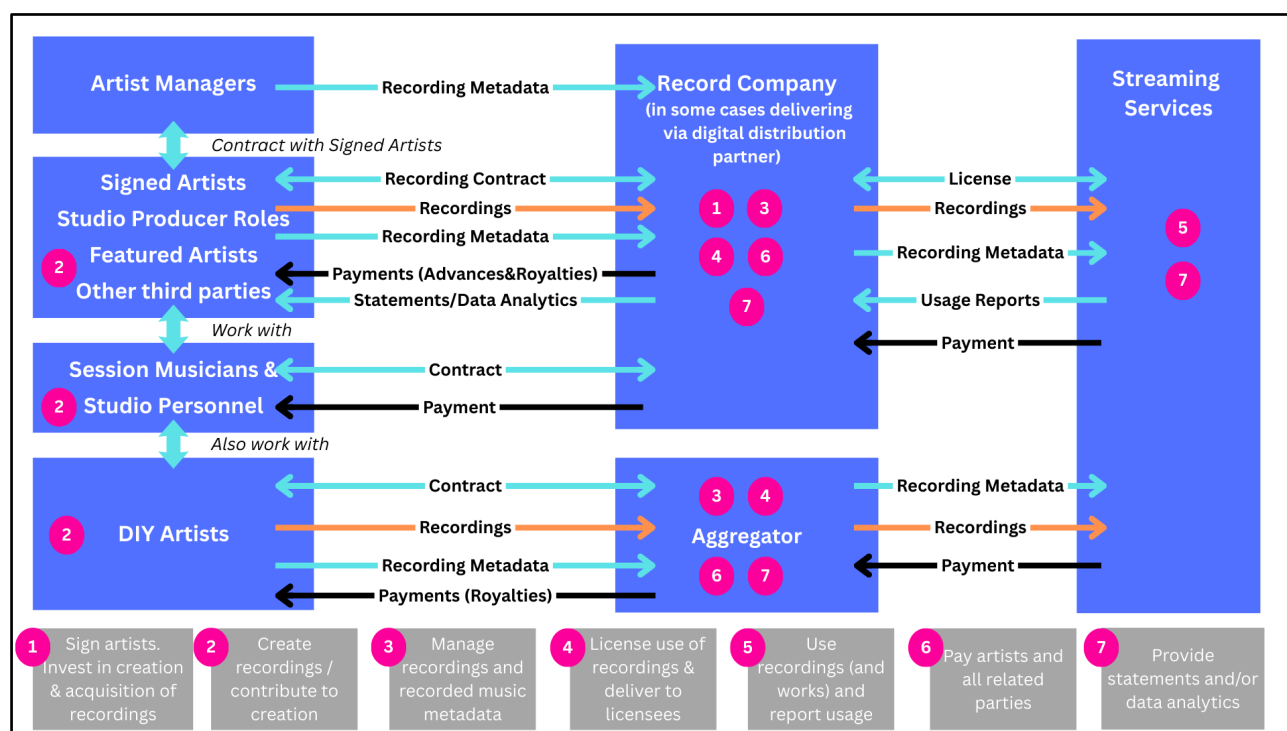


Figure 7: Current state data flows - recorded music data

Looking at the above-mentioned scenario, there is no single interoperability layer connecting the “pairing databases” built around the world by organisations and companies such as MLC, ICE, ASCAP, BMI, GEMA and Sound Exchange. This means that the whole music metadata system relies on *ad hoc* bridges, private databases, and bilateral integrations that are fragile, opaque, and difficult to audit from an external point of view.

3.1.6 Responsibility and Costs

A central conclusion of the Task Force is that responsibility for metadata accuracy is diffuse, while the economic incentives to invest in quality are unevenly distributed. Errors introduced early in the chain - missing performer data in studios, incomplete composer splits, misassigned ISRC–ISWC links, incorrect publisher codes, or incorrect repertoire claims - propagate downstream and become increasingly costly to correct.

A key issue identified during the Task Force’s discussion is that the burden of remedying these information inconsistencies falls disproportionately on weaker actors who lack resources and organisation to invest in data infrastructures: smaller publishers, performer CMOs, and independent labels. These actors often carry the labour and financial cost of fixing data they did not create, often to recover modest sums. Meanwhile, major labels, major publishers, and dominant online music services largely continue to receive payments even when data is incomplete or incorrect as regards other actors’ rights.



D5.1 – Music Copyright Infrastructure

Figure 8, which is the author's own elaboration of a table provided by IFPI, identifies today's music metadata sources from the recording production phase ('Recording sessions') to the phase of recording data release ('Releasing Parties'). As remarked by the recording industry, record labels' primary contact for recording metadata is usually the 'Artist Manager', who reaches out to relevant parties to gather metadata. The 'Studio Producer' is often responsible for delivery of metadata about the sessions, and so is a critical source of information. In practice, labels are very dependent on these inputs.

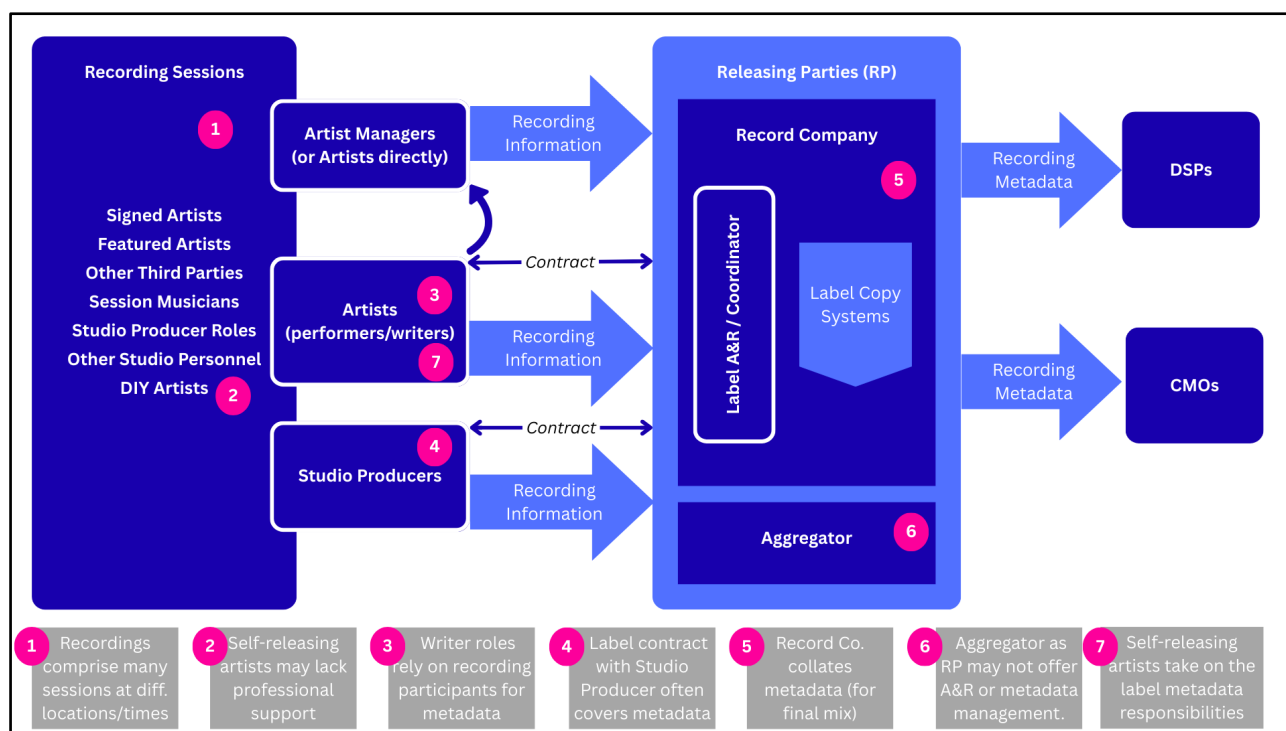


Figure 8: Recording metadata sources

As evidenced in Figure 8, the recording metadata are shared by the Releasing Parties with DSPs at a time the DSPs do not know and cannot have the musical work metadata (ISWCs and IPs) to be linked to a given recording. This means that the underlying musical works and the related rightholders can be identified *only after use* in a way that makes data “pairing” very difficult, costly and valuable for the largest and best equipped music publishing hubs and the music data intermediaries. As regards the performing artists' data in the recording production process, Figure 8's diagram shows (through point 3) that this data is collected either from the performers directly or their managers or the studio producers. However, this data is normally limited to 'featured' performers and does not normally provide a stable link to IPNs. This means that, on the performance side, responsibility for unidentified artists is retrospective and expensive, as performers' CMOs are obliged - in principle - to reconstruct decades of undocumented contributions on their own.



D5.1 – Music Copyright Infrastructure

In this scenario, DSPs benefit from data opacity because the less they report, the lower their audit risk. In its current form, the system works “well enough to keep the money flowing”⁴⁷ but poorly enough that no actor can fully audit it. Those who shall rely most on accurate metadata—namely, composers, performers and small music publishers—have the least power to shape it, while those who benefit most from the system’s liquidity—platforms and major music companies—bear the least cost of its flaws.

3.2. Why Fragmentation Persisted: Historical Trajectories and Regulatory Design

Today’s fragmentation is not an accident of digital transformation but the product of distinct historical trajectories, heterogeneous governance philosophies, and regulatory decisions that favoured distributed, proprietary infrastructures over harmonised or statutory ones. Each layer of rights - recordings, compositions, performances - developed its own identifiers, governance mechanisms, and institutional alliances long before digital exploitation made interoperability indispensable. EU policy, for its part, strengthened pluralistic and competitive models of rights management rather than creating centralised, mandatory, or publicly governed data infrastructures.

3.2.1 Recording History: Early Standardisation and Global Coordination

Compared with other rights layers, the recorded music sector benefited from early institutional coordination, which produced a remarkably stable identifier regime long before the digital era.

- ISRC, introduced in the 1980s and widely adopted from the 1990s onward, was originally designed for the needs of broadcasters, CMOs, and physical-product supply chains—not for instantaneous global distribution or multi-platform usage reporting. Yet its universality became an asset when streaming and social media emerged.
- The system’s governance reflected a high degree of institutional cohesion: IFPI served as the registration authority for ISRC, while national ISRC agencies facilitated near-global coverage and consistent allocation across markets.
- The international ISRC database, jointly operated by IFPI and US-based SoundExchange, provided a backbone of structured, authoritative metadata covering millions of recordings—well before similar tools existed for compositions or performers.
- The later emergence of industry-wide standards such as DDEX, rooted in the insights of the Music Industry Integrated Identifier Project (MI3P), reinforced the pre-existing stability. By enabling structured exchange of metadata and usage reports, DDEX aligned the data workflows of labels, distributors, and MSSs.

⁴⁷ This statement was made by an independent music industry expert during one of Fair MusE’s Task Force roundtables.



D5.1 – Music Copyright Infrastructure

- Tools like RDx, developed with the Worldwide Independent Network (WIN), modernised repertoire ingestion and accelerated the shift toward cleaner, globally coordinated metadata flows.

This long history of cohesive standardisation explains why today's recording metadata is more robust than other music metadata infrastructures. However, the Task Force discussions highlighted persisting issues regarding duplication of ISRCs triggered, for instance, by catalogue acquisitions or the re-mastering of old recordings being identified through a new ISRC. European performers' representatives, in particular, emphasised that, despite their capital importance as recording identifiers, ISRCs do not recognise the entire underlying performances in a given recording. The Task Force, as a whole, acknowledged that the gap created by missing performer information, especially for legacy recordings, stems from historical studio practices, contractual buy-outs and persisting uncertainties on who shall bear the costs (both administrative and financial) of tracing the relevant performers.

3.2.2 Publishing History: Territorial Collective Management and Catalogue Fluidity

The musical composition layer evolved under radically different institutional conditions. As emphasised above, authors' rights were administered through territorial collective management, with each CMO maintaining its own national repertoire database and exchanging information bilaterally through reciprocal representation agreements. This system served the analogue world well but created entrenched heterogeneity.

Several factors can help understand the enduring data fragmentation:

Territorial (Not Global) Optimisation

- Dataset structures were designed for CMO-to-CMO exchanges and national licensing practices, not for global, real-time synchronisation.
- CIS-Net, despite its scale and usefulness, is a federated verification tool, not a global repertoire database. It operates as a decentralised network of CMO-managed nodes rather than as a single authoritative repository.

Identifiers with Delayed Timing

- The change from physical to digital media was a major factor for fragmentation if one considers that for physical media record labels had to provide CMOs with full label copy to release, whereas in the digital world the point of exploitation (and licence) changed from CMOs to digital music services (DSPs), so that labels stopped providing label copy pre-release (cf. Figure 8, point 5, above).
- This means that, although ISWC formalised the identification of works, for digital music media this identifier is typically assigned after release, once CMOs obtain authorship and rights-share information.
- This sequencing mismatch—ISRC pre-release, ISWC post-release—remains a fundamental structural impediment to timely ISRC–ISWC pairing together with lack of broad access to IPI, which is the chief party identifier for authors' rights.



D5.1 – Music Copyright Infrastructure

Figure 9, which is an author's own elaboration of a diagram provided by IFPI, shows an antagonistic - rather than a collaborative - relationship between recording data and musical works data. The diagram shows, in particular, that the composers' and publishers' information ecosystem has never been structurally designed to support homogenous metadata. Its main identifiers (ISWCs and IPs) emerged at different times, under different mandates, and for different operational logics than those governing the use of recordings and of the related performances through digital services. Moreover, Figure 9 shows once again (cf. points 2, 3 and 4) that ISRC and ISWC links are created only after usage when (i) usage matches work claims; (ii) usage exceeds a certain threshold; and (iii) works claims are reconciled with a subsequent ISWC assignment.

3.2.3 Performers' Rights History: Late Development and Fragmented Documentation

Performer data infrastructures are the most recent and, unsurprisingly, the most fragmented. For decades, performer contributions—especially those of session musicians—were treated as ancillary information, rarely recorded in structured form.

Key historical drivers include:

Late Emergence of Identifiers and Institutional Frameworks

- Unique performer identifiers (IPNs) became meaningful only in the 2000s, and their adoption remains inconsistent.
- Many recordings, especially pre-digital and non-featured contributions, still lack performer metadata entirely.

Legal Harmonisation Arrived Slowly, Unevenly and With No Clarity on Who Should Retrieve, Store and Make Performer Data Available

- The Term Extension Directive introduced a supplementary remuneration mechanism for session musicians linked to record labels' increased revenues from a 20-year extension of rights in sound recordings. This remuneration right was designed to apply to *all* additional revenues earned by record labels because of the term extension, including online revenues.
- The supplementary remuneration is determined under EU law through a fixed percentage (i.e. twenty percent) of the labels' additional revenues, including those stemming from DSPs' exploitations. The necessity to provide a certain more reliable link between session musicians and the recordings where they featured gave performer organisations a strong incentive to improve their data and metadata collections and to develop international identifiers to be used on a cross-border basis.
- However, the Term Extension Directive and its national transpositions failed to clarify who should ultimately bear the costs of retrieving or building, storing and making session musicians metadata available to the other party. Such a lack of clarity has caused adverse effects on the implementation of the 2011 remuneration right and has made the establishment of a stable link between IPNs and ISRCs difficult or impossible.
- This unsettled metadata liability issue comes on top of a legislative framework characterised by fragmentation in national remuneration rights— for phonogram



D5.1 – Music Copyright Infrastructure

broadcasting, private copying, and public performance— and a scattered introduction of non-waivable remuneration rights for online exploitations – adopted only by a very few EU countries.

Cross-Border Coordination Only Recently Developed

- SCAPR’s IPNs and VRDB represent major structural improvements, enabling CMOs to exchange identification and contribution data.
- Nevertheless, reciprocal agreements between performer CMOs often lead only to the exchange of incomplete or unreliable data, which is insufficient for accurate revenue distribution.
- The performers’ data layer thus reflects a late and partial response to structural under-documentation, embedded in decades of analogue practices and self-referential national legal frameworks.

3.2.4 Regulatory History: Pluralism, Competition, and the Limits of Centralisation

EU regulatory choices further entrenched fragmentation by cultivating a system that values competition, diversity of actors, and contractual autonomy over centralised governance or interoperability mandates.

CRM Directive: Competition as Policy Goal

- The 2014 CRM Directive encouraged competition among CMOs and facilitated the rise of IMEs and proprietary licensing hubs.
- While the Directive established transparency obligations within the CMO sector, it did not extend comparable and equally detailed duties for publishers’ licensing hubs and major platforms, reinforcing asymmetries among these actors.

Rise of Multi-territorial Licensing Hubs

- Licensing hubs such as ICE, MINT, DEAL and AMRA streamlined music licensing practices and boosted the bargaining power of music rightholders vis-à-vis digital music services. Moreover, the repertoire aggregation instigated by the success of hubs like ICE reduced the overall number of databases, which include the repertoires of both their members and an increasingly relevant number of client organisations.
- However, as emphasised in Fair MusE’s EU Copyright Study, the competitive relationships between CMOs and their music repertoires should be reconciled with other goals such as information transparency for individuals rightholders and the public at large. The fact that these large hubs are neither CMOs nor IMEs under the CRM Directive, and are opportunistically located (at least in part) outside of the EU, makes them escape the obligations laid down in the directive, thus weakening its transparency-enhancing proposition.

The GRD Episode as a Political Boundary Marker

- The GRD’s collapse confirmed that - despite the appeal and the advantages of a centralised, “physical” database - such a single, authoritative database would not be



D5.1 – Music Copyright Infrastructure

politically acceptable in a European licensing market dominated by national CMOs operating as rights data silos and ‘natural’ monopolies for the licensing of offline uses.

- Issues of governance, control, data ownership, cost allocation, and distrust between CMOs, music publishers, MSSs and UGC platforms have made the project of a single database unviable.
- However, as remarked by independent experts in the Task Force, the current ICE database with all its major repertoires and recent additions can be viewed, to all intents and purposes, as a GRD. What stops ICE from being and acting as a GRD is that not all parties use it.

A Policy Ecosystem that Prioritised Decentralisation

- European regulatory tradition has consistently favoured pluralistic, market-driven infrastructures, relying on voluntary interoperability initiatives (CIS-Net, DDEX, WIPO Connect) rather than statutory mandates.
- Homogeneity has never been the objective; instead, policy has respected historical territoriality and contractual freedom—even as digital markets rendered these choices increasingly difficult to reconcile with cross-platform metadata alignment.

3.3. Economic Consequences: How Fragmentation Produces Systemic Winners and Losers

The structural and historical patterns outlined above translate directly into persistent economic asymmetries. Fragmentation is not merely a technical inconvenience: it distributes income unevenly, entrenches power imbalances, and allows key beneficiaries to externalise the costs of poor data quality. Across the roundtables, Task Force participants consistently underscored that the current metadata landscape rewards those with market concentration, robust infrastructures, and bargaining power, while penalising those with small repertoires, weak data, or limited institutional support.

Major labels and leading publishers—whose catalogues dominate online platform revenues—are rarely penalised by missing or inconsistent metadata. As several experts observed, when data is incomplete or ambiguous, CMOs and MSSs tend to default to well-documented repertoires and commercially central catalogues. Conversely, small and local repertoires, niche genres, independent rights holders, and non-featured performers are disproportionately harmed: their works are more vulnerable to misidentification, their data is more likely to be incomplete, and their claims are more likely to be lost in black-box distributions.

The Fair MusE EU Copyright Study makes clear that incentives to reform are weak among dominant actors.⁴⁹ Because the money continues to flow—and because black-box distributions often benefit those who already control large repertoires—there is no strong internal driver for major players to invest in system-wide interoperability. Smaller actors lack the leverage to demand change and often cannot afford audits or sophisticated metadata services; their revenues depend on the accuracy of systems they do not control.

⁴⁹ See Fair MusE EU Copyright Study, Chapter 8.



D5.1 – Music Copyright Infrastructure

An independent music industry expert described this configuration as a form of “controlled chaos”: a system messy enough to obscure accountability but stable enough to serve the interests of the most powerful stakeholders. For any future European metadata infrastructure to succeed, it must confront both technical fragmentation and entrenched economic incentives that perpetuate inequality.

3.3.1 Where the System Works Well

As highlighted above, the area that performs best is recording data, reflecting the earlier standardisation and global coordination described above.

The recording industry’s global KPIs and interviews with its representatives confirm:

- High match rates for recordings across major MSSs.
- Fast, predictable, and accurate distributions in major territories.
- Declining levels of unmatched uses, thanks to widespread DDEX conformity, global ISRC coverage, and back-office consolidation.
- Stable remuneration for *featured* performers, who benefit from well-structured contractual chains and consistent reporting formats.

This reliability is the result of decades of coordinated governance (ISRC, national agencies), institutional alignment (IFPI’s oversight, SoundExchange collaboration), and industry-wide workflow standardisation (DDEX, RDx).

Despite the establishment of a stable revenue environment especially for large catalogue owners, as highlighted above, the recording sector shows unresolved issues regarding the ‘stability’ of a global identifier that is not associated with a single database. Task Force discussions emphasised unsettled issues regarding the inability of ISRCs to identify the underlying performances - to a level that is sufficient to remunerate session musicians, whenever the applicable law so requires - and the stability of these identifiers if one considers the issue of duplicated ISRCs a result of catalogue acquisitions and ‘re-mastering’ practices.

3.3.2 Where the System Fails and Who Pays the Price

As shown in this subsection, metadata failures have their harshest economic impact on publishing rights, performers’ remuneration rights, and smaller or independent repertoires.

3.3.2.1 Publishing Rights: Mismatches, Structural Asymmetries and Uneven Capabilities

The Task Force discussions highlight persistent structural issues in the music publishing sector, not all of which are attributable to CMOs and music publishers:

- There are high volumes of unmatched or misallocated royalties, caused by post-release ISWC assignment, heterogeneous repertoire datasets, and inconsistent work registrations.
- Publishing rights are challenged not only by a late ISWC assignment and the subsequent metadata pairing delays but also by a systematic post-usage delay in the creation of a permanent link from recording data to musical work data. As



D5.1 – Music Copyright Infrastructure

emphasised above, recordings benefit from the direct upload relationship to the MSSs, which ensures that, even with imperfect metadata, remuneration flows to the correct recording rights holder. Publishers' and composers' rights - instead - are fundamentally reliant on usage reporting from both MSSs and UGC platforms. While labels can successfully "scan" usage of their recordings on UGC platforms, CMOs/publishers can do so - often with the help of data intermediaries - when the recording is already linked with a musical composition.

- The licensing market is characterised by cross-border music licensing disparities given by CMOs with weaker technological infrastructures which cannot process platform data at the same scale or granularity as larger societies and their major licensing hubs.
- A weaker metadata quality of independent and local repertoires triggers a lack of visibility and exposure, increasing the risk that royalties flow mostly to dominant catalogues.
- Proprietary hubs (ICE, MINT, URights, AMRA) and their opaque practices cannot be adequately tackled by national supervisory authorities of CMOs because these entities are not bound by the CRM Directive's transparency rules and can limit data sharing based on competitive strategies.⁵⁰

3.3.2.2 Performers—Especially Non-Featured or 'Session' Musicians

As stressed in the Fair MusE EU Copyright Study and Task Force discussions, performer metadata is chronically incomplete for

- Historical under-documentation—especially for analogue-era recordings—means many performers cannot be identified at all. As claimed by European performers, this is an exceptionally serious obstacle for the application of additional remuneration rights mandated by the 2011 Term Extension Directive on a EU-wide basis. More than a decade after the entry into force of this directive, it has become obvious that, due to lack of data on the non-featured performers involved in old recording productions, this right is completely worthless for the vast majority of performing artists.
- The cost of reconstructing or inferring this information falls disproportionately on performers' CMOs, which cannot easily invest substantial resources to recover small sums for individual artists. It is somewhat paradoxical that, under EU law, record producers who do not possess data showing which performers played on which recordings end up retaining the above-mentioned additional remuneration.
- Wherever incomplete data exists which will allow a performer to be identified, EU law does not specify who should bear the administrative and financial costs of tracing the relevant performer. Therefore, there is no incentive for record labels to maintain and provide accurate data.
- Cross-border uses are particularly problematic for performers, as reciprocal representation agreements between national performers' organisations often exchange only incomplete or low-quality data, insufficient to allocate shares accurately.⁵¹ This is, at least partially, the consequence of the limited harmonisation of the remuneration rights that performers have traditionally handled collectively

⁵⁰ *ibid*, Section 8.2.1.

⁵¹ *ibid*, Section 8.2.2.2.



D5.1 – Music Copyright Infrastructure

under the national laws of EU Member States and of the different collection and revenue allocation regimes adopted in each jurisdiction.

This lack of documentation and inconsistency in the way remuneration rights are shaped and concretely applied on a country-by-country basis erodes performers' ability to benefit from rights that are, on paper, provided under EU law. The Task Force discussions acknowledged the relevance of the inter-connection of performers' CMO databases through SCAPR identifiers (International Performer Numbers or 'IPNs'), and its technical and geographical improvements. However, industry experts also stressed the limits of this relatively recent initiative for the enforcement of rights in legacy recordings.

3.3.2.3 Independent and Niche Repertoires: Structural Invisibility

Independent labels, DIY artists, and niche repertoires bear a disproportionate burden:

- Revenue allocation algorithms favour well-documented catalogues, meaning incomplete metadata directly translates into lost income.
- The Fair MusE EU Copyright Study documents that some large platforms historically prioritised direct deals with major publishers and major labels, leaving smaller actors licensed under less favourable terms or under-reported.⁵²
- Distributors/aggregators may mediate data flows, but independent artists often lack the metadata literacy, resources, or audit capacity to correct errors downstream.

In short, those least equipped to overcome metadata flaws are those most likely to be harmed by them.

3.3.3 Platform-Driven Asymmetries

The economic asymmetries are reinforced by the above-mentioned structural differences and logics that characterise MSSs and UGC platforms.

MSSs (Spotify, Apple, Deezer)

- Provide structured, predictable income streams.
- Deliver usage reports in standardised DDEX formats, enabling comparatively transparent royalty statements.
- Still face debates over allocation models (pro-rata, user-centric), but fundamentally respect industry identifiers (ISRC, ISWC where available).

UGC/Social Media Platforms (YouTube, Instagram, TikTok)

- Generate much lower revenue per use and rely on a broad variety of business models that commodify attention rather than recorded music.
- Historically took advantage of copyright liability exemptions, leading them to develop proprietary identification systems that were initially disconnected from the creative industry standards.

⁵² *ibid*, Section 8.4.2.1.



D5.1 – Music Copyright Infrastructure

- Despite significant differences between different social media services and their degree of collaboration with music rightholders, these services produce less granular, less reliable, and less auditable reports, often lacking sufficient identifiers to match compositions or performers.
- Until recently, some of them offered flat-rate deals—a practice highlighted in the Fair MusE EU Copyright Study—that entirely bypassed usage-based reporting obligations.⁵³

This divergence between MSSs and UGC platforms exacerbates economic inequalities: rightholders dependent on social media exposure often receive far less remuneration and far poorer reporting than those focused on MSS-based exploitation.

3.3.4 Regulatory Limits and Market Realities

While EU law formally supports transparency and fair remuneration, the Fair MusE EU Copyright Study demonstrates a substantial gap between legal obligations and market practice.

Transparency Obligations: Strong on Paper, Weak in Reality

- Article 19 DSM Directive entitles authors and performers to up-to-date information on exploitation of their works and the related revenues. However, contractual arrangements, NDAs, and selective reporting formats often neutralise these rights, yielding only partial or aggregate data.
- Proprietary licensing hubs (ICE, MINT, DEAL, AMRA) and CMOs treat their repertoire data and metadata as a competitive asset, limiting sharing under claims of confidentiality, database copyright or trade secrecy—invoking existing EU law protections for these data assets whose scope and factual requirements still vary from jurisdiction to jurisdiction.

Competition Law Constraints and Ambiguities

- Antitrust considerations shape what data can be shared without being perceived as market coordination. As several Task Force participants noted, competition law can both justify and deter data collaboration.
- Large integrated entities controlling data-intensive services claim that their involvement in interoperability solutions with competitors would expose them to competition law's scrutiny.
- At the same time, smaller actors such as independent record labels and their internal networks fear that data centralisation could entrench dominance. This concern is what made them strongly support the European Commission's opening of an in-depth investigation of the proposed acquisition of Downtown Music Holding, which also includes its business-to-business distributor FUGA, by UMG.
- As briefly recalled above, the Commission opened a formal investigation on 22 July 2025 to assess whether the above-mentioned merger would allow UMG to reduce competition in the wholesale distribution of recorded music market in the European

⁵³ Ibid, Section 8.5.1.



D5.1 – Music Copyright Infrastructure

Economic Area by acquiring commercially sensitive data from rival record labels. A historic precedent in this domain, although with regard to the creation of a hub for the licensing of music publishing rights and the related data aggregations, was the European Commission's scrutiny and subsequent approval, in 2015, of the joint venture establishing ICE through an agreement concluded by PRS, STIM and GEMA.⁵⁴

The Result: Limited Enforcement and Systemic Imbalance

To sum up: the EU legislative framework supports transparency, but enforcement is inconsistent, national supervisory authorities vary widely, and structural power imbalances allow dominant actors to weaken or nullify the purpose of the law.

The Special Case of Article 17 DSM Directive

Task Force participants acknowledged that Article 17 has materially reshaped the bargaining landscape:

- Social media service providers like Meta and ByteDance partially filled the large compliance and data collaboration gap that existed with a platform like YouTube's by shifting toward systematic licensing, greater alignment with the music industry identifiers through an increasingly relevant involvement in the adoption of DDEX-based reporting.
- Article 17 has narrowed (but not closed) the gap between MSSs and UGC platforms in recognising the need for social media's rights clearance and accountability.

Yet, disparities remain:

- Revenues from UGC platforms remain far lower than from streaming even for comparable visibility due to less granular and less auditable usage reports, often insufficient for full ISRC–ISWC (and IPN) matching.
- Legal uncertainty persists, as evidenced by the pending referral before the Court of Justice of the European Union (CJEU) in *Austro Mechana and AKM*.⁵⁵ This case concerns whether the textual reference by Article 17 DSM Directive to 'communication to the public' rights - without mentioning reproduction rights - entails the exclusion of mechanical rights' clearance in the domain of UGC platforms. If, as a result of this upcoming ruling, mechanical rights were marginalised in UGC contexts, this outcome could further weaken the music publishing sector's bargaining power and metadata visibility, extending potentially to the value of music rights even in the streaming industry.

Regulatory Momentum, Divergent Views

The Task Force acknowledged that:

⁵⁴ Case M.6800-PRStfM/ STIM/ GEMA/ JV, Commission Decision of 16 June 2015.

⁵⁵ C-579/24 *Austro Mechana and AKM*—pending.



D5.1 – Music Copyright Infrastructure

- Article 17 of the DSM Directive, the DMA, and increased competition law enforcement have already moved significantly in the direction of constraining platform power.
- The Task Force’s recording industry representatives cautioned against additional regulatory intervention—such as mandating equitable remuneration for online exploitations—as this would potentially distort market dynamics.

However, Fair MusE’s findings are unequivocal: market-led negotiation cannot deliver fairness in the absence of transparent, interoperable metadata. Technological opacity and informational asymmetry remain the principal obstacles to fair remuneration across all weaker repertoires.

3.4. Summary

Viewed together, the above-mentioned sections show that:

- Recording metadata benefits from early standardisation (ISRC, DDEX, coordinated back-offices) and functions with high match rates, yet remains structurally isolated from composition and performance layers.
- Musical composition metadata is fragmented by territorial collective management, delayed ISWC assignment, the emergence and consolidation of dominant proprietary licensing hubs, and long-standing catalogue fluidity.
- Performance metadata suffers from late institutionalisation and uneven harmonisation across EU countries, historical under-documentation, and inconsistent adoption of content identifiers.
- Platforms—especially UGC services—operate with proprietary, opaque data systems, providing incomplete, non-standardised, or unauditable reporting that undermines traceability and widens informational asymmetries.
- The economic consequences are uneven: large labels and major music publishers continue to be paid even under imperfect data conditions, while small repertoires, independent publishers, and non-featured performers bear the costs of missing or inaccurate metadata.
- The EU regulatory framework offers transparency in several directive provisions that contain data disclosure obligations for CMOs, publishers and record labels, and commercial users and rights licensees such as streaming services and social media. However, the enforcement of these provisions is weak or negligible due to contractual opacity, data confidentiality or ownership claims stemming from EU directives on the protection of trade secrecy and databases, and competition-law constraints that limit the scope of data-sharing initiatives. Article 17 has certainly improved bargaining dynamics between social media platforms and music rightholders but has not resolved structural data deficits as far as the quality and level of detail of the usage reports provided by tech companies are concerned.
- Building and maintaining centralised databases remain institutionally and economically unsustainable in the EU. The only viable path is a shift toward interoperable and standardised data infrastructures, shared identifiers, transparent reporting models, and balanced governance mechanisms for these industry alignment initiatives.



D5.1 – Music Copyright Infrastructure

This integrated diagnosis forms the empirical and structural foundation for the conceptual and architectural proposal articulated in the next section.



4. Towards a European Music Metadata Infrastructure: Rationale, Objectives and Governance Approach

The analysis in the preceding sections underscores why music metadata governance has become central to contemporary copyright policy. As licensing structures for streaming services and UGC platforms converge - as well as the reporting and data-sharing for all online music exploiters - data accessibility and interoperability become a precondition for granular and evidence-based remuneration of music rightholders. Shared standards such as DDEX already demonstrate how structured data flows can foster accountability and inclusiveness. However, without governance mechanisms ensuring consistent adoption, and mandatory specifications concerning the data to be provided, even advanced licensing frameworks risk collapsing into uncertainty.

This final Section proposes a European Music Metadata Infrastructure (EMMI): a governance-rich, federated model designed to strengthen the data foundations of music copyright across all repertoires.

The Section presents:

1. Best or recommended practices that would enable the European data infrastructure to foster the capturing and integration of identifiers for both sound recordings and the underlying musical compositions at source, i.e. before a recording is released, with the verification of the relevant CMOs and an early assignment of ISWCs. This subsection also explains why the 2023 UK Music Metadata Agreement offers a viable and realistic institutional model for the EU digital music sector;
2. The design objectives and the guiding principles shaping the Infrastructure; and
3. The implementation pathways and governance architecture that would make this proposal operational.

4.1. Best Practices and an Existing Model to Follow

To resolve or mitigate the repertoire data issues identified in this deliverable, a fully operational EMMI shall be based on a multi-lateral agreement including and making the following best practices mandatory for both the music and the tech sectors.

EMMI members from the music sector should:

- Ensure the availability and supply of the two universal repertoire identifiers for recordings and musical compositions at source (ISRC, ISWC), enabling rightholders and online exploiters to reliably recognise these works across all digital services.
- Match and link ISRCs and ISWCs before resolving splits and rights shares with the relevant collecting societies. This practice shall aim at defining a Core (or minimally viable) Data Set with a view to developing and sharing optional datasets that can include additional identifiers for composers and performers, respectively, the IPIs and



D5.1 – Music Copyright Infrastructure

the IPNs. The inclusion of additional identifiers in the Data Set can be necessary or helpful to identify and properly credit/remunerate relevant rightholders in the implementation of rights application to online exploitations.

EMMI members from the digital music industry should:

- Help provide data dashboards for creators, enabling composers, performers, and their collective organisations to trace uses, detect errors or gaps, and request corrections.
- Publish data-quality indicators, helping data matching failures become visible for rightholders rather than being hidden in black-box distributions.
- Support cross-platform content recognition protocols, ensuring that a recording or composition identified on one service is identified consistently across all others.
- Use open, auditable formats, allowing rightholders, CMOs, and enforcement agencies or even courts to verify data integrity and ascertain alterations, removals or replacements.

In this vision, fairness would become architectural, not purely aspirational. Creators' rights to information under Article 19 DSM and the CRM Directive would finally rest on a reliable metadata foundation, rather than on the unfulfilled assumption that such interoperable metadata naturally exists.

Notably, achieving this transparency-enhancing vision does not necessarily require legislative amendments. As emphasised above, multiple EU law provisions already recognise transparency rights and provide reporting and data-sharing obligations for CMOs, corporate rightholders and, even more importantly, commercial users of copyright works, including digital music services.⁵⁶ What is missing is a governance and enforcement layer enabling stakeholders to fulfil these obligations in practice.

4.2. Core Objectives and Guiding Principles

The above-mentioned 2023 UK Industry Agreement on Music Streaming Metadata provides a credible model given the UK's proximity to the EU in terms of regulatory framework and the fact the stakeholders actively involved in this initiative are the same as (or very close to) those who could reach an equivalent agreement for the EU Digital Single Market. Moreover, the UK Agreement is a voluntary but formal, government-facilitated initiative that effectively defines a Core Data Set to be shared across the music and the tech sectors.

An EU body or agency could play in this initiative the same role played by the UK IPO, helping creators' and commercial users' representatives to establish a Code of Good Practice, set Key Performance Indicators, and create light-touch independent oversight through the appointment of expert groups. This neutral EU-level body could be created for this specific purpose or found within the European Commission itself, considering the existence of institutions such as the Joint Research Centre in Seville,⁵⁷ which hosts the

⁵⁶ See Arts. 17-22 CRM Directive as well as Art. 19 DSM Directive.

⁵⁷ The website of the Joint Research Centre is available at https://joint-research-centre.ec.europa.eu/jrc-sites-across-europe/jrc-seville-spain_en.



D5.1 – Music Copyright Infrastructure

European Centre for Algorithmic Transparency.⁵⁸ Another specialised agency such as the EUIPO could play the role of EU supervisory authority in the field of music metadata and expand its copyright-related tasks, which already include a recently inaugurated Copyright Knowledge Centre⁵⁹ and a consolidated European Observatory on Infringements of Intellectual Property Rights.⁶⁰ This approach aligns incentives without imposing new statutory duties, enabling coordinated improvement and co-development of technical pathways toward interoperability.

As proposed in Fair MusE’s White Paper (D5.4), the creation of a EU Music Data Space, which would become part of the upcoming EU Cultural Data Hub announced by the European Commission’s 2025 ‘Culture Compass’, could follow and actively support the logic and function of the EMMI.⁶¹ The creation of such a supervised, standards-based, distributed data system - possibly under the shield of a European Music Observatory (cf. D5.4) - would foster consistency and accountability of EMMI’s data-sharing model while leaving the data infrastructure market-driven, modular, and adaptable.⁶²

The following subsections outline a conceptual and articulated model for EMMI, providing a brief description of the core objectives and design principles. This model would offer a way for the Europe Union to transform music metadata from a source of systemic inequality into the foundation of a more transparent, inclusive, and resilient music economy.

4.2.1 Completeness at Source

Metadata should be captured as close as possible to the point of creation and release for recordings in a way that works metadata do not need to be reconstructed and paired after release. This approach reflects the UK Code of Good Practice and addresses the structural problems identified in Sections I–III.

4.2.2 Interoperability, Not Centralisation

The infrastructure shall connect existing datasets—ISRC registries, CIS-Net, RDx, SCAPR/IPD, CMOs’ mono-repertoire licensing hubs, and music data intermediaries—via shared standards and APIs, rather than replacing them.

4.2.3 Layer-Sensitive Architecture

Because compositions, recordings, and performances follow different legal and historical logics, the EMMI shall ensure that they remain distinct but reliably linkable through their authoritative identifiers.

⁵⁸ For more information on the European Centre for Algorithmic Transparency, currently responsible for supporting the enforcement of the DSA, see <https://algorithmic-transparency.ec.europa.eu/index_en>.

⁵⁹ Further details on the EUIPO’s Copyright Knowledge Centre are provided at <<https://www.euiipo.europa.eu/en/copyright-knowledge-centre>>.

⁶⁰ Publications by and information on the European Observatory on Infringements of Intellectual Property Rights can be found at <<https://www.euiipo.europa.eu/en/observatory>>.

⁶¹ See Giuseppe Mazziotti, Marta Cantero Gamito, Evangelia Psychogiopoulou, Heritiana Ranaivoson, Maria Schmidt-Kessen, and Antonios Vlassis, White Paper on Fairness in Music Ecosystems’ (2025) (hereinafter ‘Fair MusE White Paper’) Section 4.7.2.

⁶² See Fair MusE White Paper, Section 4.3.6.



D5.1 – Music Copyright Infrastructure

4.2.4 Platform Inclusion

Unlike the UK Agreement, which focuses only on streaming services, the EMMI reflects the EU's intent not to discriminate between streaming and social media services as regards a duty to obtain licences for all the copyright works these services make available to the public. This means that the EMMI shall involve tech companies operating social-media platforms, recognising and strengthening their obligations under Article 17 DSM Directive and their central role in contemporary digital music use.

4.2.5 Governance and Accountability

Metadata errors shall be considered as important as governance failures as technical errors. The EMMI shall introduce clear responsibilities and KPI-based monitoring mechanisms following the example provided by the UK model agreement.

4.2.6 Incremental Implementation and Extension to GenAI Copyright Licensing

The EMMI's roadmap should be deployed in phases, as suggested below (cf. §4.3.4) beginning with mandatory data integration at source for new recordings to be gradually extended to legacy catalogues. The consolidation and implementation of this mandatory data integration should progressively (i) help adopt structured reporting aligned with the obligations of UGC platforms under Article 17 of the DSM Directive and (ii) foster data transparency and fairer licensing conditions for the lawful use of sound recordings, works and performances for AI training and synthetic uses.

4.3. Governance Architecture and Implementation Pathways

4.3.1 Governance Layer

4.3.1.1 EU-Level Convenor and Oversight

The EU supervisor shall be chosen among the above-mentioned EU bodies and would have the institutional mission:

- Convene and supervise the EMMI's consortium of partners;
- Host the Steering Group and Expert Working Groups mentioned below (cf. §4.3.1.2 and §4.3.1.3);
- Monitor implementation, coordinate KPIs, and publish periodic reports;
- Liaise and coordinate with leaders of existing initiatives such as EUIPO's cross-sectoral project aimed at mapping existing data infrastructure in the creative industries (*CopyrightView*)⁶³ and the Copyright Infrastructure Task Force (CITF) led by the Finnish Government.⁶⁴

⁶³ EUIPO, 'EUIPO launches Copyright Knowledge Centre to support creators in the digital age' (24 November 2025) <<https://www.euipo.europa.eu/en/news/euipo-launches-copyright-knowledge-centre-to-support-creators-in-the-digital-age>>.

⁶⁴ A brief overview of the CITF can be found at <<https://okm.fi/en/citf-en>>.



D5.1 – Music Copyright Infrastructure

4.3.1.2 Steering Group

An EU Steering Group on Music Metadata would:

- Be chaired by the EU Supervisor;
- Include authors, composers, publishers, performers, labels, distributors, CMOs, IMEs, MSSs, UGC platforms, intermediaries, and EU regulators' representatives;
- Meet at least twice per year;
- Adopt KPIs, update the Code of Good Practice, and refine architectural components;
- Ensure the representation of weaker and minority actors, including small CMOs and independent labels and DIY artists.

4.3.1.3 Expert Working Groups

Three core groups shall follow, and therefore expand, the UK model:

- An Education & Awareness Group shall develop EU-wide training resources and multilingual campaigns;
- A Technical Solutions & Standards Group shall harmonise metadata flows, define KPIs, and explore a European link layer for ISRC–ISWC–Performer relations;
- A Governance & Legal Group shall operationalise the existing transparency and data-sharing obligations that exist between different stakeholders represented in the EMMI and resolve tensions with confidentiality expectations and EU competition law limits.

4.3.2 Core Data Set 2.0 and a Golden Standard

The EMMI consortium of partners should aim to define a mandatory Core Data Set 2.0, which would initially consist of a minimally viable set of data drawn from the different layers of music copyright metadata. The Core Data Set 2.0 should be associated with all sound recordings (identified by ISRCs) and made available to all DSPs at source, or as close as possible to the moment of public release through a digital music service.

The Core Data Set 2.0 should be provided to, and adopted by, not only music streaming services (MSSs) but also all UGC platforms, given that most of these services already make available large libraries of licensed sound recordings to be paired with works and content generated by their users.

Figure 10 illustrates, in the “Minimum Viable Data Set” column on the left, the information relating to sound recordings and musical works that should constitute the Core Data Set. For sound recordings, this data should include: recording artist, recording title and subtitle, ISRC, and the names and roles of direct contributors (performers and studio personnel). For musical works, the data set should include the names and roles of indirect contributors (authors and publishers).

The central column of Figure 10 shows how this minimal data set could evolve into a “Golden Standard”—an expression used in Task Force discussions by recording industry representatives. Such a metadata target would consist of: (i) the addition and inclusion of



D5.1 – Music Copyright Infrastructure

ISWCs and IPI numbers within the musical-work metadata component; and (ii) performers' identifiers (via IPNs) within the sound-recording metadata component.

As the same diagram indicates, a further, more dynamic and broadly shared data set could extend this framework by identifying sound-recording rightholders and - at the level of musical works - composers' rights splits, as well as music publishers together with the relevant chain of title.

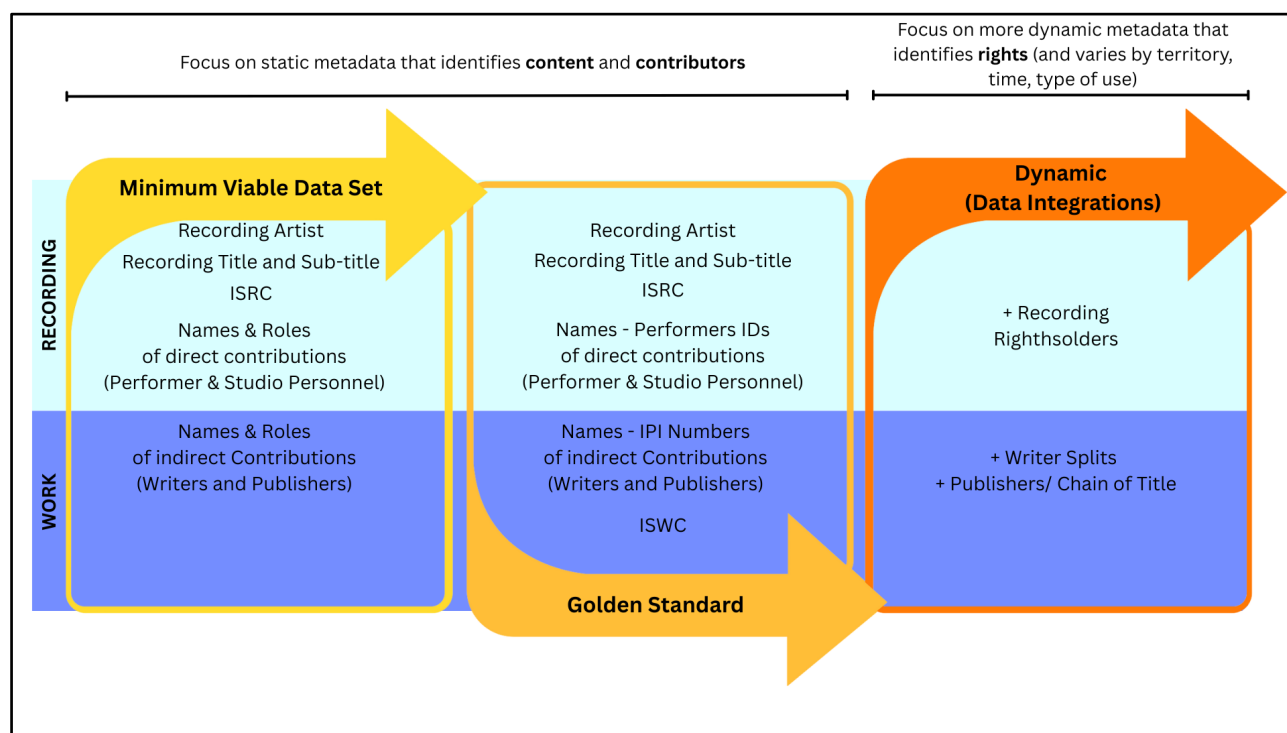


Figure 10: From a Viable Core Data Set to a Golden Standard

As briefly noted above, and as implied by the logic of incremental implementation (cf. § 4.3.4), this data system should be rolled out in two phases: (i) new sound recordings and newly created and deposited musical works; and (ii) legacy catalogues.

4.3.3 Technical Architecture: Federated Linking Layer

4.3.3.1 Federated Registries and APIs

EMMI shall link existing registries through standardised APIs and a minimal common data dictionary, ensuring consistent interpretation of fields across systems.

4.3.3.2 A European Virtual “Link Registry”

The EMMI shall establish a virtual linking layer aggregating ISRC–ISWC–IPNs made available by trusted sources. Access shall be tiered to protect sensitive information while maximising transparency.



D5.1 – Music Copyright Infrastructure

4.3.4 Implementation

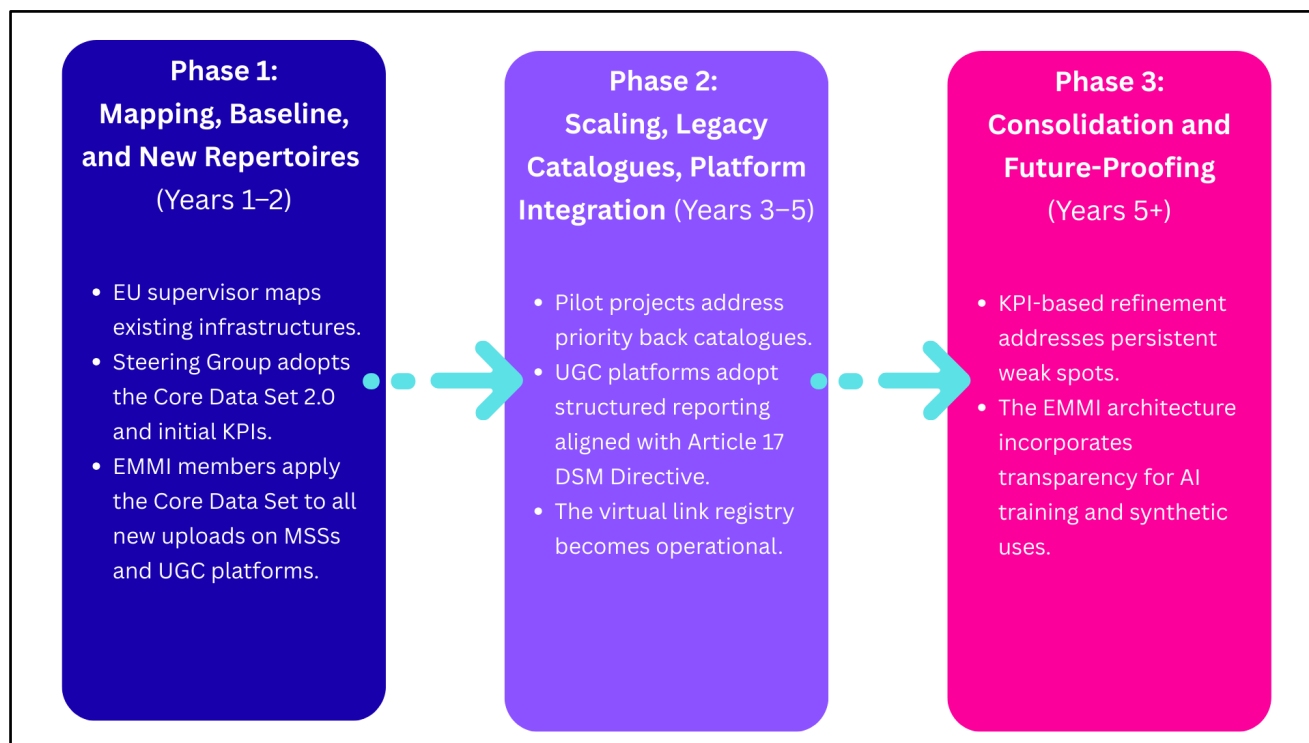


Figure 11: Pathways and Phasing

4.3.5 Incentives, Compliance, and Soft-Law Instruments

Positive Incentives

- Funding eligibility tied to KPI adherence.
- Access to shared tools for studios and independent creators.
- Voluntary “metadata quality” certifications.

Soft-Compliance Mechanisms

- Periodic KPI reporting at sector level.
- Voluntary commitments to remedy underperformance.
- Integration of metadata duties in standard contracts.

Regulatory Safety Net

If voluntary pathways fail, EU legislators should consider amending existing EU law by mandating the bundling of universal identifiers at source, through obligations targeting both the music sector (CMOs, licensing hubs, and record labels) and - so far as adoption and uptake are concerned - the digital music industry, including UGC platforms, for all content for which they obtain licences. Moreover, such reform should clarify the data-sharing and reporting obligations under the 2011 Term Extension Directive, the 2014 CRM Directive, and the 2019 DSM Directive, so as to specify the categories of data that both rights holders



D5.1 – Music Copyright Infrastructure

and commercial users must make available to each other for the purposes of music licensing and usage reporting.

4.4. Summary

The conceptual architecture proposed here is modular, incremental, and governance driven. Inspired by the 2023 UK Metadata Agreement, but adapted to Europe's multi-jurisdictional and broader legal context, the EMMI addresses:

- The need to involve UGC platforms more fully in the definition and implementation of this metadata infrastructure;
- The integration of composers' and performers' metadata - such as IPIs and IPNs - as a necessary complement to the two main music identifiers (ISRC and ISWC), in particular for the enforcement of remuneration rights and collective agreements applicable across digital music services; and
- The complexity of existing European rights-management structures, as well as their structural misalignment resulting from the differing nature, historical development, and territorial scope of the principal music identifiers.

This proposal aims to provide a coherent framework through which existing infrastructures can be interconnected, alongside a clearer allocation of responsibilities and a realignment of incentives for all stakeholders within a value chain operating across inter-connected ecosystems. Through this approach, the European music data ecosystem could gradually evolve towards greater transparency, interoperability, and fairness across all repertoires and their respective rights holders.



Glossary

Application programming interface (API)	An API is a technical interface that enables structured data exchange and interoperability between different software applications.
Artists & Repertoire (A&R)	A&R is the department within a record label that coordinates the identification of artists and the development, recording, and commercial exploitation of sound recordings, including oversight of the creative process and liaison between artists, producers, and the label's production, marketing, and distribution activities.
Blockchain	A blockchain is a decentralised digital ledger that records and verifies transactions across multiple participants without relying on a central authority.
Collective management organisation (CMO)	A CMO is a member-owned body established to administer copyright and related rights on behalf of authors and other rightholders, including licensing, royalty collection, usage monitoring, and the equitable distribution of remuneration.
Common Data Model (CDM) format	The CDM format is a shared, standardised structure for describing data elements and their relationships to ensure consistency, interoperability, and reuse across systems and stakeholders.
Confédération Internationale des Sociétés d'Auteurs et Compositeurs (CISAC)	CISAC is the international network of authors' CMOs that coordinates collective rights management standards, reciprocal agreements, and global copyright policy.
Data aggregator	A music data aggregator is a service that collects, organises, and delivers music data (such as streams, sales, audience demographics) from platforms (e.g., Spotify, Apple Music) into one place for artists and labels, simplifying analytics and distribution.
Data intermediary	A data intermediary or "broker" is a company whose business model involves gathering data from multiple sources, combining it, and providing it to third parties for commercial or analytical purposes.
Digital Data Exchange (DDEX)	DDEX is an international standards organisation that develops and maintains data exchange standards for the efficient communication of music rights, metadata, and licensing information across the music industry.
Digital distributor	A digital distributor is an intermediary that delivers digital content to online platforms on behalf of rightholders and manages the



D5.1 – Music Copyright Infrastructure

related metadata, reporting, and revenue flows.

DIY artist

A DIY artist is an artist who independently creates, produces, releases, and promotes their music without the direct involvement of a traditional record label.

Extensible Markup Language (XML)

XML is a structured markup language used to organise, transmit, and store data in a machine-readable format.

FRAND

FRAND is a licensing principle requiring that intellectual property rights be licensed on fair, reasonable, and non-discriminatory terms, particularly where market access depends on the licensed technology.

Harry Fox Agency (HFA)

The HFA is a US-based music licensing company that administers and licenses mechanical rights in musical works on behalf of music publishers. Since 2015, it has been owned and operated by the Society of European Stage Authors and Composers (SESAC). Harry Fox was a US music publisher and early advocate of mechanical licensing. The agency was named after him in recognition of his role in developing collective mechanical licensing practices in the United States.

Independent label

An independent label is a record company that operates autonomously from the major label groups, often with more flexible ownership structures, diverse catalogues, and niche market strategies.

Independent management entity (IME; cf. Art. 3 b) CRM Directive)

An IME is a private, for-profit undertaking that manages and licenses rights on behalf of rightholders and, unlike CMOs, is not controlled by its members. Examples include UNISON and Jamendo.

Interested Party Information (IPI)

The IPI is a unique identifier assigned to songwriters, composers, and music publishers registered with a collecting society managing their rights. IPIs are assigned on behalf of CISAC.

International Federation of the Phonographic Industry (IFPI)

IFPI is the global organisation representing the recording industry, advocating for the interests of record producers, licensing rights, and coordinating anti-piracy and market data activities. IFPI is for the recording industry what CISAC is to CMOs.

International Performer Number (IPN)

The IPN is a unique identifier assigned to performers registered with a collecting society representing performers and managing their rights. IPNs are created, managed and distributed through SCAPR's International Performer Database.

International Standard Musical Work Code (ISWC)

The ISWC is a globally standardised identifier for musical works, enabling accurate attribution, usage tracking, and remuneration.

International

The ISRC is a unique identifier for individual sound recordings



D5.1 – Music Copyright Infrastructure

Standard Recording Code (ISRC)	and music videos that facilitates identification, usage tracking, and remuneration. It is administered globally under an IFPI-coordinated system.
Key Performance Indicator (KPI)	A KPI is a measurable value used to assess progress toward a defined objective or performance target.
Licensing hub	A Licensing hub is a rights administration entity that combines repertoires from multiple CMOs and/or publishers to license and/or administer rights for multi-territorial online usage. Examples include ICE and MINT.
Major label	Major labels are the largest multinational music companies that hold significant market power in the recording and publishing sectors. In this context, Universal Music Group, Sony Music Entertainment, and Warner Music Group are commonly referred to as “majors”.
Metadata	Metadata generally refers to information that explains, identifies, or structures other data, such as its content, origin, format, or context. Metadata in music refers to information that describes a musical work or recording, such as title, artist, authorship, rights holders, release date, or identifiers.
Multi-territorial licensing	Multi-territorial licensing is a rights-licensing model that enables the use of musical works or recordings in multiple EU Member States under one licence, rather than negotiating separate national licences.
Music Industry Integrated Identifiers Project (MI3P)	The M3IP was an initiative aimed at developing a global infrastructure for the music industry to facilitate use by online music services through a system of standardised data exchange.
Music streaming service (MSS)	A MSS is an online platform that offers licensed, on-demand access to recorded music (e.g., Spotify, Apple Music, Deezer, Amazon Music, YouTube Music).
Online Content-Sharing Service Provider (OCSSP, cf. Art. 2(6) DSM Directive)	An OCSSP is an online platform, whose main purpose is to store and make available user-uploaded contents to the public and which is subject to specific obligations under Article 17 of the DSM Directive, encompassing social media platforms but excluding MSSs.
Performing rights organisation	A performing rights organisation is a rights management body operating in the Anglo-American copyright system that licenses the public performance of musical works and distributes royalties to songwriters and publishers.
Reciprocal agreement	A Reciprocal agreement is a contract between CMOs allowing each organisation to license rights and collect remuneration on behalf of the other organisation in its own territory.
Social media	A ‘social media’ platform or service in this deliverable is



D5.1 – Music Copyright Infrastructure

synonymous with OCSSPs under Article 17 of the DSM Directive. These platforms are digital services designed for the creation, sharing, and dissemination of user-generated content (UGC) and social interaction, including platforms such as Facebook, Instagram, YouTube, and TikTok. D5.1 also uses the term ‘UGC platforms’ as a synonym for ‘social media platforms’.



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- Sanchez, Daniel, 'Pan European Collecting Societies Agree on Standards for Digital Royalty Processes' (26 July 2019, *Digital Music News*) <<https://www.digitalmusicnews.com/2019/07/26/towge-digital-royalty-group/>>

Legislation

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- Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society
- Directive 2011/77/EU of the European Parliament and of the Council of 27 September 2011 amending Directive 2006/116/EC on the term of protection of copyright and certain related rights
- Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market



D5.1 – Music Copyright Infrastructure

- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)
- Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure
- Regulation (EU) 2022/868 of the European Parliament and of the Council of 30 May 2022 on European data governance and amending Regulation (EU) 2018/1724 (Data Governance Act)
- Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC
- Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act)
- Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act)
- Commission Implementing Regulation (EU) 2024/607 of 15 February 2024 on the practical and operational arrangements for the functioning of the information sharing system pursuant to Regulation (EU) 2022/2065 of the European Parliament and of the Council

US Legislation:

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