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Pioneering AI-Driven Technology for the Future of Music Rights Management

JULY 2025

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Executive Summary

The rapid growth of digital platforms including YouTube, TikTok and Netflix, and the emergence of diverse content formats such as vlogs, video games and podcasts, has triggered a surge in music consumption. This explosion of content presents significant challenges in tracking how music is used, how music rights are managed, and ensuring rightful payments to artists and rights holders.

Traditional systems are struggling to keep up. The sheer volume of new online content, coupled with the intricacies of broadcast reporting and cue sheet management is overwhelming traditional systems, leading to an incomplete view of music usage, and substantial lost revenue.

Orfium has been at the forefront of tackling these complexities for over a decade by harnessing the power of Artificial Intelligence (AI). Our AI-driven solutions go beyond simple usage tracking, delivering unrivaled matching capabilities, precise metadata delivery, and automated cue sheet management - essential for streamlining operations and identifying and claiming untapped revenue.

This white paper explores the critical challenges within the music and entertainment industry, details Orfium's innovative AI-powered approach, and outlines our vision for a more efficient, equitable, and transparent future for music rights management and reporting - one that benefits artists, the industry, and the future of music creation.

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The Evolving Landscape of Music Rights Management: Challenges and Opportunities

The rapidly expanding digital world has fundamentally reshaped how music is created, distributed and consumed.
While offering immense opportunities to artists and creators for audience reach and engagement, this evolution has also introduced significant complexities in managing music rights.

The Proliferation of Digital Platforms

The rise of user-generated content (UGC) platforms like YouTube and TikTok, alongside widespread adoption of audio and video streaming services such as Spotify and Netflix, has created an overwhelming volume of content to monitor and monetize. This trend is only accelerating.
Looking ahead, projections indicate exponential growth in these areas, with the UGC video platform market alone expected to reach US $193.9 billion by 2033[1], a 387% increase from 2024 as reported by Straits Research. Similarly, Statista figures project that the global AV market is projected to reach US $823 billion by 2029[2].

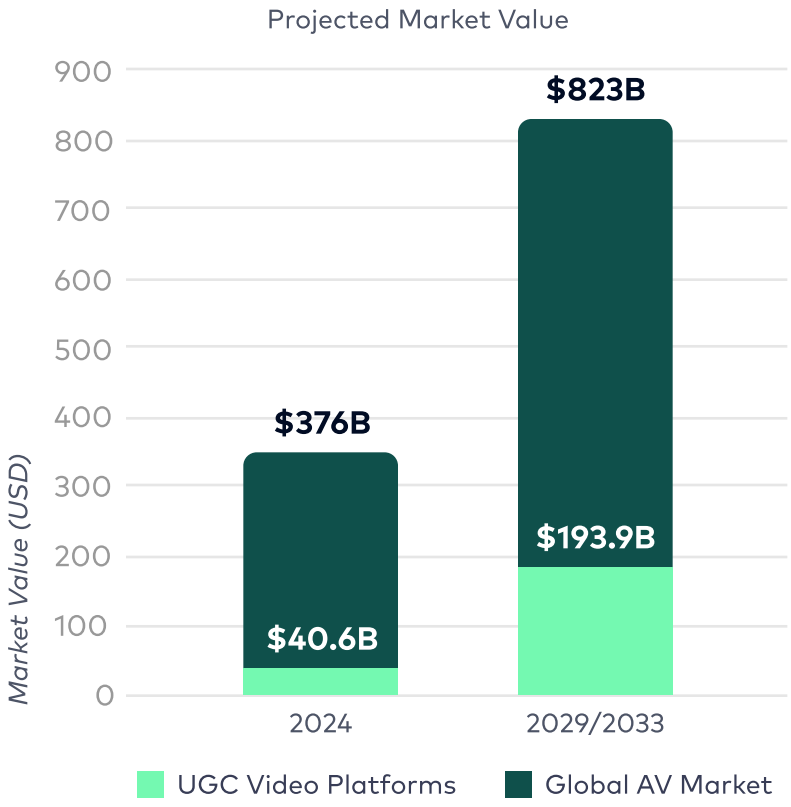


Fig 1. Projected Global UGC and AV Market value growth, 2024-2033. Data from Straits Research, retrieved May 27, 2025 https://straitsresearch.com/report/short-video-platform-market/segmentation and Statista, retrieved May 27, 2025, from https://www.statista.com/outlook/amo/media/tv-video/worldwide.

[1] *(Straits Research, 2024)*
[2] *(Statista, 2025)*

Inconsistent and Incomplete Metadata

Accurate and comprehensive metadata is crucial for identifying musical works and ensuring proper compensation for rights holders. However, today's digital landscape is often plagued by fragmented and inconsistent metadata, making it difficult to track music usage and distribute royalties fairly and efficiently.

30K

hours of video uploaded hourly to YouTube, 2024

The Scale and Velocity of Content Creation

The sheer speed and scale at which new content is created and uploaded to YouTube and other streaming services have outpaced the capabilities of traditional rights tracking systems.

According to Statista, on YouTube alone, 30,000 hours of video content are uploaded every hour[3]. This deluge of data makes it virtually impossible for rights holders to effectively monitor and monetize their works using conventional approaches, leading to significant revenue loss.

The streaming boom has also triggered a global surge in content production across Netflix, Prime Video, Apple TV and Disney+ amongst others. With multiple platforms competing for audience attention, there is more content being created and distributed online than ever. According to PwC, global subscriptions to streaming video services are projected to climb from 1.6 billion in 2023 to 2.1 billion by 2028[4], a strong indicator of continued growth in production and music usage.

[3] *(Statista, 2025)*

[4] *(PwC, 2024)*

Orfium's AI-Powered Solution: Unlocking Value in Complexity

Orfium recognizes that effectively navigating the complexities of modern music rights management requires a paradigm shift. Our approach leverages the transformative power of AI, not as a threat to the industry, but as a critical enabler of greater efficiency, accuracy, and transparency.

Our AI-driven solutions achieve this through:

Advanced Music Identification

Orfium's advanced AI algorithms are designed to identify musical works across a wide range of digital formats, overcoming the limitations of traditional metadata dependent systems. Our technology can effectively identify music in instances where audio has been manipulated (e.g. sped up or slowed down's, as is the norm on TikTok) or remixed, a crucial capability in today's dynamic environment. Urgency to capture all uses is met by our usage matching systems that, in 2024 alone, processed 52 million music recognitions. This ensures rightsholders do not miss out on compensation when their works are used in new and unexpected ways.

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3 QUADRILLION

data rows processed by Orfium, 2024

Scalable & Accurate Metadata Management

For music rights holders, managing the growing volume and complexity of digital assets is a critical challenge, as ineffective handling and commonplace errors directly impact revenue. Orfium's advanced AI framework enables precise, scalable processing and governance of complex metadata. Our systems create a unified, actionable view of musical assets by intelligently linking diverse data sources. This automation ensures accurate usage tracking and royalty distribution. In 2024 alone, Orfium processed over three quadrillion rows of data and linked over 2.6 million recordings to compositions on YouTube using our proprietary AI-powered Metadata Linking Service (MLS).

US$1B

revenue delivered to clients, (on track for end 2025, all-time)

Proactive Revenue Recovery

By accurately identifying and monitoring music usage across digital platforms and broadcast channels, Orfium empowers rights holders to effectively monetize their content, recovering substantial revenue that would otherwise be lost. The direct financial impact is clear: Orfium is on track to deliver US $1 billion in total revenue impact for our clients by the end of 2025.

The Orfium Edge: Combining AI with Deep Industry Expertise

Orfium's leadership in AI-driven music rights management is based on a unique combination of cutting-edge technology and deep industry expertise.

Human-AI Partnership

We believe the most effective solutions combine advanced AI with skilled human judgment and deep industry experience. We have the industry's largest dedicated team of Claimers, who use our systems to find music in user-generated content (UGC) on platforms such as YouTube and TikTok. They provide critical validation and feedback, ensuring the accuracy and reliability of our AI models. This "human-in-the-loop" approach allows us to navigate complex cases and continuously refine our algorithms with real-world insights to consistently deliver better results for our clients.

Continuous Learning and Adaptation

Orfium's AI systems are engineered to continuously learn and evolve. By analyzing vast datasets with machine learning, they constantly identify complex patterns to refine their accuracy. This adaptability is crucial in the dynamic digital landscape, ensuring our clients always benefit from the most advanced AI solutions.

Our AI models intelligently navigate "data drifts", the natural evolution of data patterns over time. When new genres of music emerge, or client data changes (due to ingesting new catalogs, or updating existing information for example), our systems automatically re-train. This allows them to instantly recognize new patterns and track new trends to maintain peak performance. Close monitoring and proactive fine-tuning from our team, along with ongoing research and investment into cutting-edge technologies, ensure our solutions remain state-of-the-art.

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Deep Industry Knowledge

Orfium is more than an AI tech company. Our team is a collective of AI experts and seasoned music professionals, from composers and producers to copyright lawyers and industry executives.
We deeply understand the intricate challenges of metadata, cue sheets, music rights and reporting because we've experienced them first hand. This unique blend of practical experience and cutting-edge AI empowers us to engineer solutions that are shaping a more equitable and efficient future for the entertainment industry.

In-house Data and Annotation

Rigorous in-house control over data and anno-tation is vital. Our approach ensures the data quality, consistency, and security essential for training accurate and reliable AI models and protecting client data. We continuously train our datasets to ensure they reflect the true global diverse reality of music so they remain trustworthy and unbiased.

Commitment to Research and Development

Innovation is fundamental to Orfium. We invest heavily in research and development, constantly exploring new AI applications to address emerging challenges and opportunities within the music and entertainment ecosystem. Our dedicated Research & Innovation Department comprises a significant portion of our workforce and is focused on building and exploring novel AI applications.

Key Applications of AI at Orfium

Orfium's AI is deployed across a range of critical applications, each designed to address specific challenges in music rights management

Audio Recognition for User Generated Content (UGC)

Orfium's proprietary AI uses a sophisticated Deep Learning Model (DLM) for the precise identification of music segments within audio content. This technology analyzes key acoustic parameters, such as silence patterns and pitch characteristics. The DLM is trained on a specialized dataset, designed to accommodate a wide spectrum of variations in audio, including changes in speed, the presence of background noise, and other distorting elements. This advanced AR capability significantly enhances operational speed and efficiency by streamlining the complex workloads of Orfium's expert Claiming Team.

Asset Matching

Our AI-powered Metadata Linking Service (MLS) addresses the critical challenge of fragmented and inaccurate metadata by accurately connecting recordings to their underlying compositions. To achieve this, the service utilizes a suite of advanced technologies, including Large Language Models (LLMs) and classical Machine Learning Models (MLMs), and makes use of past and verified knowledge. Our service is able to deal with variations in the metadata and still identify and propose the best links available between disparate datasets. This process creates a comprehensive and reliable set of links between musical works and their associated rights holders, directly improving the accuracy of royalty distribution.

Claiming

We employ AI to empower our claiming teams. Orfium's proprietary technology analyzes audio and leverages deep learning and lyric transcription to accurately identify specific music assets within vast video libraries. These AI-powered tools, including cover song recognition, are key to proactively recovering revenue and maximizing financial returns for our clients.

Track Labeling

AI-driven advanced audio analysis categorizes tracks with precision, distinguishing commercial music from other audio content like meditation tracks, karaoke versions, and sound effects. This minimizes false recognitions and optimizes royalty collection workflows.

Audio Recognition for Cue Sheet Automation

89%

reduction in cue sheet creation time

Orfium's AI-driven cue sheet automation significantly enhances the efficiency and accuracy of cue sheet management. Central to the system, advanced Audio Recognition (AR) technology automatically identifies music usage in content, particularly broadcast and production materials. Following this identification, our AI automates cue sheet generation, reading, reformatting, and validation.
This process transforms information to produce accurate cue sheets aligned with industry standards and Performing Rights Organization (PRO) requirements. Orfium's Soundmouse solution addresses the industry challenge of laborious, error-prone manual cue sheet processing and reporting. With AR-powered cue sheet management, clients can reduce cue sheet creation time by up to 89% (from 3 hours to 20 minutes per cue sheet when AR is used).

Orfium's Commitment to Responsible AI Practices

Orfium is deeply committed to the ethical and responsible development and deployment of AI. Our focus is on enhancing music tracking and simplifying processes for creators and rights holders, not on generative AI for content or music creation.



Data Privacy and Security

We prioritize the security and privacy of our clients' data, adhering to strict contractual agreements and all relevant data protection regulations.



Continuous Ethical Review

We have implemented internal processes for the ongoing review and evaluation of the ethical implications of our AI technologies.



Bias Mitigation and Fairness

We are committed to mitigating bias in our AI systems by training our models on diverse, globally representative datasets.



Transparency and Accountability

We strive for transparency in how our AI systems work and are committed to accountability in their ethical use.



Legal Alignment and Contractual Compliance

All of our AI applications and data usages are fully aligned with existing legal frameworks and contractual agreements. Orfium is ISO 27001:2022 certified.

Orfium's Vision for the Future

Orfium is committed to shaping the future of music rights management and reporting through continuous innovation in AI. Our vision is a more efficient, transparent, and equitable music ecosystem where creators and rights holders are empowered with the tools they need to thrive. By consistently pushing the boundaries of AI technology, our aim is to unlock the true value of music for all stakeholders so that artists and creators are encouraged and enabled to continue creating and pursuing their passion.

To realize this future, our strategy focuses on three key pillars:



Pioneering AI Advancement

Orfium continues to make significant investments into AI research and development, exploring new ways to solve the industry's most complex challenges. This includes continually refining our AI and machine learning technologies to stay at the forefront. Our ultimate goal is for all music usage to be accurately identified and attributed, regardless of where, when and how it is used.



Building an Integrated Ecosystem

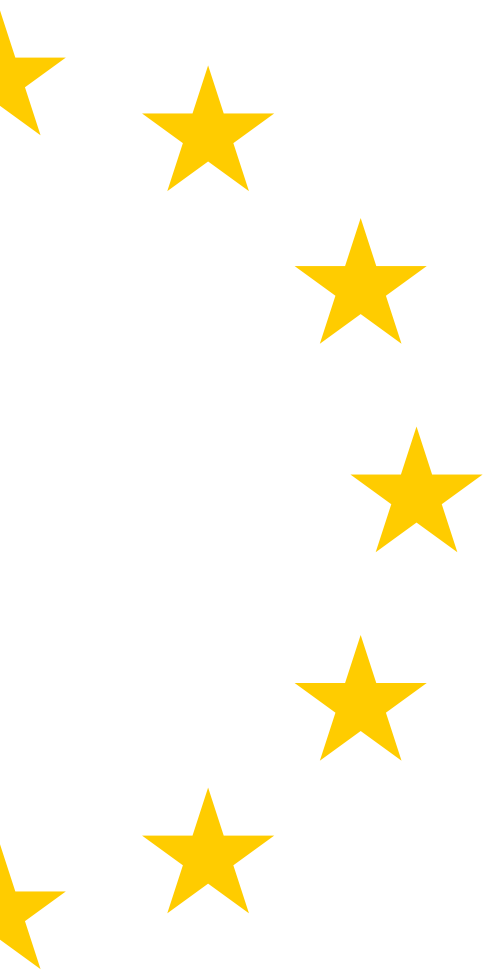
Our vision is for Orfium's technology to be seamlessly integrated throughout the global music rights ecosystem. When content is consumed across platforms, our systems will process the relevant data and revenue attribution to ensure accurate reporting and monetization. This involves creating an interconnected global infrastructure across music and entertainment that supports music reporting for rights owners and music users alike.



Supporting Creator Recognition & Compensation

Music is at the heart of what we do and its future depends on an ecosystem where creators and rights holders are not just recognised, but properly compensated for their work. Without the passion and talent of artists and songwriters, the industry, as we know it - simply wouldn't exist. We have a tangible impact on these creators and our vision centres on using AI for the good of the music and entertainment industry. We are committed to building an ecosystem that supports creators in realizing the full value of their music and fosters an environment where they can continue to create and thrive.

EU Backs Orfium's Vision: Advancing AI Explainability and Transparency



Orfium has successfully secured a grant from the European Union, having been selected to participate in their highly competitive €7.5 million AIXPERT project. This initiative focuses on developing an agentic, multi-layered, GenAI-powered framework to enhance AI explainability, accountability, and transparency, meaning it will develop Generative AI that can explain its decision-making process based on Fairness, Accountability, Transparency, and Ethics (FATE) principles. Orfium will play a key role in implementing and validating this framework within the music industry, specifically addressing the challenge of AI-generated music copyright attribution, identifying where copyrighted material has been used in AI-generated music. This initiative positions Orfium at the forefront of ethical AI development and strengthens our collaboration with leading academic and industry partners.

Conclusion

The challenges facing music rights management and reporting across the entertainment ecosystem are compounding year on year. At Orfium, we believe that AI offers a powerful pathway to a more efficient and equitable future. Our pioneering AI-driven solutions, combined with our deep industry expertise and commitment to responsible AI practices, position us as the leader in transforming how music rights are managed and reported across digital and broadcast media channels. By partnering with Orfium, rights holders and music users can navigate the complexities of the digital and broadcast landscape to unlock lost revenue, and ensure compliant and accurate reporting in the ever-evolving world of music and entertainment.

If you're interested in learning more about Orfium's products, services and technology, visit www.orfium.com or email hello@orfium.com today.

About Orfium

Orfium is the global technology leader shaping the future of music rights management.

We enable music and entertainment companies - from music publishers and record labels to broadcasters and film studios - with AI-powered technology and expert services to optimize the management, monetization, licensing and reporting of copyrighted content.

Combining our expertise in music rights management with robust broadcast monitoring and cue sheet management, Orfium delivers accurate music reporting, unrivaled efficiency, and maximum revenue for our clients

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