



LAW 2023/6
Department of Law

WORKING PAPER

**Can Online Music Platforms Be Fair?
An Interdisciplinary Research Manifesto**

Giuseppe Mazziotti and Heritiana Ranaivoson

European University Institute
Department of Law

Can Online Music Platforms Be Fair? An Interdisciplinary Research Manifesto

Giuseppe Mazziotti and Heritiana Ranaivoson

LAW Working Paper 2023/6

ISSN 1725-6739

© Giuseppe Mazziotti and Heritiana Ranaivoson, 2023

This work is licensed under a [Creative Commons Attribution 4.0 \(CC-BY 4.0\)](#) International license.

If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the series and number, the year and the publisher.

Published in November 2023 by the European University Institute.
Badia Fiesolana, via dei Roccettini 9
I – 50014 San Domenico di Fiesole (FI)
Italy
www.eui.eu

Views expressed in this publication reflect the opinion of individual author(s) and not those of the European University Institute.

This publication is available in Open Access in [Cadmus](#), the EUI Research Repository:



With the support of the
Erasmus+ Programme
of the European Union

The European Commission supports the EUI through the European Union budget. This publication reflects the views only of the author(s), and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Abstract

In this article we present a *manifesto* for research into the complex interplay between social media, music streaming services, and their algorithms, which are reshaping the European music industry—a sector that has transitioned from ownership to access-based models. Our focus is to assess whether the current digital economy supports a fair and sustainable development for cultural and creative industries. The *manifesto* is designed to pave the way for a comprehensive analysis. We begin with the context of our research by briefly examining the de-materialization of the music industry and the critical role of proprietary algorithms in organizing and ranking creative works. We then scrutinize the notion of 'fairness' within digital markets, a concept that is attracting increasing policy interest in the EU. We believe that, for 'fairness' to be effective, the main inquiry around this concept – especially as regards remuneration of content creators - shall be necessarily interdisciplinary. This presupposes collaboration across complementary fields to address gaps and inconsistencies in understanding how these platforms influence music creation and consumption and whether these environments and technologies should be regulated. We outline how interdisciplinary expertise (political science, law, economics, and computer science) can enhance the current understanding of 'fairness' within Europe's cultural policies and help address policy challenges. The article details how our research plan will unfold across various disciplinary hubs, culminating in the integration of their findings to produce the 'key exploitable results' of a Horizon Europe project (*Fair MusE*) that aims to explore challenges and opportunities of today's digital music landscape.

Keywords

fairness, music streaming, social media, European Union, 2019 Copyright Directive, data, playlists, recommender systems

Giuseppe Mazziotti

Giuseppe Mazziotti is the Abreu Professor in Law and Innovation at Católica Global School of Law and the Centre on the Future of Law at Universidade Católica Portuguesa in Lisbon. He joined Católica after eight years (2014-2022) as a full-time Fellow and Professor of Intellectual Property Law at Trinity College Dublin. He is currently Coordinator and Principal Investigator of the Horizon Europe project 'Fair MusE' (*Promoting Fairness of the Music Ecosystem in a Platform-Dominated and Post-Pandemic Europe*). He holds a summa cum laude Juris Doctor (JD) degree (2001) from the University of Perugia and a PhD in Law (2007) from the European University Institute in Florence, Italy. His main research interests lie in the fields of EU intellectual property, information technology law, media law, and cultural policies.

Heritiana Ranaivoson

Heritiana Ranaivoson is Professor and Senior Researcher at imec-SMIT-VUB since 2010. Previously, he obtained a PhD in Economics (Université Paris 1, Panthéon-Sorbonne) and was Associate Researcher at Mines ParisTech. He has led several research projects at international, national and local levels, funded by public (e.g. European Commission: H2020, Horizon Europe, study contracts; and UNESCO) or private (e.g. Google) organizations. He has published extensively in the fields of cultural and media diversity, media innovation, media

policy, online platforms, and the role of recommender systems in cultural industries. His latest co-edited book is 'European Audiovisual Policy in Transition' (2023) at Routledge.

Acknowledgement of funding

Research for this working paper was funded by the European Union's Horizon Europe Framework Programme, under the Grant Agreement no: 101095088.

The working paper is forthcoming in International Review of Intellectual Property and Competition Law (IIC), 2024.

1. Introduction

The exponential growth of social media and streaming services, and the fast-growing influence of their algorithms and data infrastructures, raise open questions as to whether today's digital economy may allow the cultural and creative industries (CCIs), and especially the music ecosystem, to develop in a fair and sustainable way, at least for most authors and performers. The digital revolution has done much more than just simplifying content dissemination and making content productions potentially scale up, to reaching unprecedented levels. Digital technologies broadened the notion of 'creation' itself, which goes from traditional works of composers, performers, record labels and broadcasters to new forms of musical and music-based creativity that digital settings, social media, and artificial intelligence (AI) have enabled. These new forms and trends include the streaming of live music events and home-made creations that became even more appealing and diffused considering the effect of the Covid-19 health emergency and of the ensuing long-term restrictions on the performing arts. In this scenario, the commercial power of a handful of very large tech companies increased significantly. These companies can be identified, at least in part, with the owners of the 'very large online platforms' (VLOPs)¹ under Art. 33 of the DSA and with providers of core platform services according to the notion embodied in the DMA.² The ability of these companies to control access to unprecedented volumes of creative works and, symmetrically, creators' ability to reach and develop potential audiences raises existential questions for Europe's policy makers and the CCIs, including players such as radio, TV broadcasters and the market for live performance exploitations.

This paper is shaped as a *manifesto* to advocate a new, interdisciplinary research approach that can remedy the shortcomings of a purely doctrinal and scientifically segregated (i.e., "silos-like") analysis of EU cultural and industrial policies in the music sector and of their *effective* impact in today's platform- and algorithm-dominated economy. In our view, only a well-designed combination of distinct and complementary disciplines can test methodologically and verify empirically whether the EU's policy changes in copyright law and recent EU regulations (Digital Services Act – DSA – and Digital Markets Act – DMA) seeking to curb the exceptional power of VLOPs are justified and suitable in today's internet. To this end, we authored a research proposal and built an EU-wide interdisciplinary group of academics and industry partners whose consortium - Fair MusE³ - received funding from the EC/REA's Horizon Europe program. The group's principal investigators are experts in the fields of law, economics, political science, and computer science and have a consolidated leadership in developing projects of international relevance and solid connections with policymakers and industry.

¹ Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC [2022] OJ L277/1 ("DSA"). See Chapter 3, Section 5.

² 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 [2022] OJ L265/1 ("DMA"): see Art. 2 and Art. 3.

³ Promoting Fairness of the Music Ecosystem in a Platform-Dominated and Post-Pandemic Europe ('Fair MusE'), Grant agreement ID: 101095088, <<https://cordis.europa.eu/project/id/101095088>>, accessed on 15 October 2023.

The predominantly academic character of this consortium⁴ aims at guaranteeing the highest quality and independence of the proposed research. The consortium composition seeks to prevent conflicts of interests which would inevitably arise in our view if, due to the project's mission, the consortium incorporated industry partners (such as a major record publisher or label or an online music service provider or a social media platform owner) which would pursue their own corporate interests. This could result in the hindering of, or even distorting of, the results of the empirical research for data and confidential information Fair MusE has envisaged. To prevent this risk, while being able to engage in “co-creation” of tools for policy makers and the music industry together with CCIs, our consortium incorporates industry partners which have an interest in promoting fairness in music ecosystems: (i) an Italian composers' collecting society (SIAE), which is broadly representative of Italian composers and whose repertoire is strong at local level but not mainstream at international level;⁵ and (ii) a UK-based company (Verifi Media Ltd) that is currently leading market development of rights data management services for the music industry, including data collaboration and sharing, which are a prerequisite for market transparency for both creators and exploiters of digital music.⁶

Our manifesto is based on Fair MusE's main research proposal and postulates a novel approach to address the European idea of a 'fair' digital society and of fair digital markets in the music sector in an extensive and integrated manner. Such a necessity is even more compelling at European level if we consider that the notion of 'fairness' is currently being used in several policy areas.⁷ We believe that, not only is fairness an important aim, it is also designed to support cultural creation in today's fast-changing, very broad and increasingly AI-dominated music ecosystems, independent research should give this concept a more tangible and measurable dimension. Our manifesto and its potential outcomes aim at pursuing this goal and making policymakers, stakeholders, and the general public more aware of the risks that creators' lack of appropriate remuneration as well as platforms' algorithm-based and data-secret exploitations of creative works raise for music's sustainability and diversity.

⁴ The academic members of the consortium are: Universidade Católica Portuguesa (UCP); Vrije Universiteit Brussel (VUB); Aalborg Universitet (AAU); Université de Lille (ULILLE); Université de Liège (ULIEGE); Hellenic Foundation for European and Foreign Policy (ELIAMEP); Tartu Ülikool (UTARTU); Central European University GmbH (CEU).

⁵ <https://www.siae.it>.

⁶ <https://www.verifi.media>.

⁷ The European Commission's recent legislative initiatives in the areas of standard essential patents, artificial intelligence, platform-to-business trading practices, as well as competition law all rely on fairness as one of their objectives, namely:

Proposal for a Regulation of the European Parliament and of the Council on standard essential patents and amending Regulation (EU) 2017/1001 [2023] COM(2023) 232 final; Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence and amending certain Union legislative acts [2021] COM/2021/206 final (“Draft Artificial Intelligence Act”); Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services [2019] OJ L186/57 (“Platform-to-Business Regulation”). Regulation (EU) 2022/1925 (n 2).

The manifesto is organised as follows. Section 2 briefly summarises how the music industry progressively de-materialised over the past three decades and went from ownership-based to access-centred business models where streaming services and social media platforms organise and rank sound recordings on the grounds of their (secret) algorithms. Section 3 lists complementary disciplines and methods that are necessary to perform effective and independent research activities focused on whether music platforms can function fairly, especially for music creators. This section identifies gaps in the literature and shows how interdisciplinary research can go beyond the state of the art and help resolve persisting policy dilemmas in this field. Section 4 describes the main contents and purposes of our manifesto while drawing on the emerging notion of fairness in EU music policy making and other policy fields. Section 5 details how we see our ideas being put into practice in Fair MusE's research proposal and concrete set of activities.

2. Evolution of the music industry and its today's dependence on platforms

The music industry, more than other sectors, has gone through radical changes in the past two decades that have been even more difficult to face because of the extreme fragmentation of rights, business interests and artistic prerogatives that characterise the related creative communities. When the internet first emerged in the mid-1990s, the end-to-end architecture of this new medium and the fast development of file-sharing software enabled internet users to access and exchange large amounts of recorded music without intermediation. Free and uncompensated file sharing threatened the survival of the music industry for almost a decade, given that it had the potential to replace physical formats like CDs, which were the core business of the industry.⁸ Since the early 2000s, proprietary online platforms have dramatically changed content distribution models and made music materials ubiquitous in the online environment. Although unauthorised file-sharing continued, becoming even more efficient and sophisticated, an unstoppable evolution of the internet infrastructure in terms of bandwidth and connectivity enabled companies like Apple to launch on-demand music stores, such as iTunes, which started in 2001. iTunes was the first service that made digital music marketable by creating its own ecosystem based on proprietary technologies and its success in computers and portable devices. Streaming services like Spotify and Deezer as well as social media platforms like YouTube emerged at a later stage, which consolidated both a trajectory of music consumption from an ownership to access model and a process of online re-intermediation for the whole internet and, even more so, for digital music distribution. This platform-centred environment has allowed music right-holders to start licensing their works and earn remuneration from the technology companies that exploited their music. Despite this evolution, music rights-holders' communities claim not only that the value of their works has been disrupted by a platform-dominated economy but also that a "value gap" exists between the remuneration they earn from music streaming services and social media platforms.⁹

⁸ Statistics evidenced a dramatic fall of the music business between 1999 and 2014, when global revenues from physical and digital music sales declined by 42%, from \$25.2 to 14.6 billion. See IFPI, 'Global Music Report 2018: Annual State of the Industry' <<https://www.ifpi.org/ifpi-global-music-report-2018/>> accessed 15 October 2023.

⁹ 'Value gap' is an expression used for the first time by representatives of the music industry in Brussels to describe the impoverishment of their sector as a consequence of widely uncompensated uses of copyright works across online platforms and a sharp difference between the licensing fees paid by social media and the fees paid by music streaming services: see, for instance, Helen Smith (IMPALA), Veronique Desbrosses (GESAC) and Frances Moore (IFPI), 'Value gap is crucial for the music sector', *The Guardian*, 24.07.2016

Our interdisciplinary research agenda seeks to understand and illustrate, in an autonomous and evidence-based way, the consequences that the various business models deployed by the largest digital music platforms have as far as music production, distribution and consumption processes are concerned. These complex environments are deeply influencing the economic and social value of this art form, in ways which are often contradictory from a public policy perspective. On the one hand, platforms have effectively enabled new forms of music production and home-made creations that empower amateur, early career or disenfranchised categories of authors (“professionalising amateurs”) to gain online exposure and eventually establish themselves as music professionals.¹⁰ On the other hand, these algorithm-dominated businesses seem to have induced a significant impoverishment of creators, especially those of niche or marginal repertoires that are penalised by the logic of filter bubbles and recommender systems.

The above-mentioned scenario has led to significant reforms of legal and regulatory frameworks that aim to govern and shape European music ecosystems. The most significant among these adaptations are embodied into Directive 2019/790.¹¹

- This directive seeks to protect the commercial value of copyright works – in particular recorded music – by making providers of online sharing content services directly liable for works their users make available.¹² This is a first policy change that distanced EU lawmakers from a legal principle of platform neutrality that, for nearly two decades, the EU maintained to stimulate the growth of a robust Internet infrastructure. In reversing this principle, this law provision aimed at obliging social media companies to obtain licences and to implement content identification technologies that can either restrict access to unauthorised works or help copyright holders to be remunerated for online exploitation of their works.
- A second, potentially very impactful change is condensed into Chapter 3 of the directive, where the law codifies a principle of fair and proportionate remuneration for authors and performers, in particular with regard to online music exploitations,¹³ and a right to receive - on a regular basis - timely, accurate, relevant and comprehensive information on modes of exploitation of their works, direct and indirect revenues generated as well as any remuneration due.¹⁴

<https://www.theguardian.com/business/2016/jul/24/valu-gap-music-sector-youtube> accessed 15 October 2023.

¹⁰ Stuart Cunningham and David Craig, *Social Media Entertainment – The New Intersection of Hollywood and Silicon Valley* (New York University Press 2019) 11-14.

¹¹ 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 [2019] OJ L130/92 (“2019 Copyright Directive”).

¹² 2019 Copyright Directive, Art. 17.

¹³ 2019 Copyright Directive, Art.18.

¹⁴ 2019 Copyright Directive, Art.19.

We believe that both these policy changes constitute a turning point or even a “big bang” in the European history of copyright and artists’ rights whose real effects are yet to be evaluated in a non-doctrinal and evidence-based way. This has not happened yet because of the very slow transposition of these provisions into national laws and an approach to academic research on these reforms that we find incomplete, too abstract and ideological, and discipline-segregated (“silos-like”).

3. Advancing complementary disciplinary expertise to go beyond the state of the art

Our interdisciplinary research presupposes the identification of disciplines that can eventually enable independent scholars to fully understand the consequences of market-driven and legislative changes in Europe’s music ecosystem, going beyond the state of the art in measuring and enhancing the impact of the main EU policy making initiatives in this field. While the music industry has been analysed from an economic perspective,¹⁵ we believe that these analyses should be strongly connected to political, legal, and technical investigations and a thorough empirical exploration of the societal impact of music platforms on European music creators and audiences. In the following subsections we seek to identify gaps in the literature and illustrate how research can produce new knowledge to the benefit of policy makers, stakeholders and society at large.

3.1. Politics: the EU as a policy maker in the music industry

Despite a series of thoughtful studies on EU cultural-media policies,¹⁶ there has been so far no comprehensive attempt to examine and critically assess the ways in which EU policy and law have sought to cope with the notion and the goal of *fairness* in the music sector, the values underpinning the policy instruments introduced (market vs non-market values) and the objectives pursued. We believe that the first pillar of an effective research agenda in this field should be a comprehensive policy analysis of different EU initiatives that relate to the music sector. We need such an exhaustive analysis to understand the origin, nature, breadth, and degree of policy changes towards the governance of online platforms in Europe and the implications for the music ecosystem. This endeavour shall consist of the scrutiny of several policy instruments, proposals and reports, including key documents related to ‘Music Moves Europe’, that the EU issued in the past three decades.¹⁷

¹⁵ Patrik Wikström, *The music industry: Music in the cloud* (3rd edn, John Wiley & Sons 2020); Keith Negus, ‘From creator to data: the post-record music industry and the digital conglomerates’ (2019) 41 *Media, Culture & Society* 367.

¹⁶ David Laing, ‘The European Music Industry and European music policy’ (1999) 9 *Cultural Trends* 31; Katharine Sarikakis (ed), *Media and Cultural Policy in the European Union*, *European Studies* 24 (Rodopi 2007); Annabelle Littoz-Monnet, *The European Union and Culture: Between Economic Regulation and European Cultural Policy* (Manchester University Press, 2007); Petros Iosifidis, *Global Media and Communication Policy* (Palgrave Macmillan, London 2011); Karen Donders, Caroline Pauwels and Jan Loisen (eds), *The Palgrave Handbook of European Media Policy* (Palgrave Macmillan, London 2014).

¹⁷ See European Commission, ‘Music Moves Europe’: <<https://culture.ec.europa.eu/cultural-and-creative-sectors/music/music-moves-europe>> accessed 15 October 2023.

Our analysis will focus predominantly on three issues that have dominated debates on online platforms and EU music governance in the past few years: (i) the availability and prominence of local and national music content online; (ii) the rights for creators in relation to the use of their music content by online service providers; and (iii) a fair and proportionate remuneration of music creators. Our team will engage in a historic analysis covering a span of 30 years of EU policy initiatives in this sector to understand the nature and breadth of policy changes towards the governance of music streaming and social media platforms, including the latest tweaks regarding, specifically, fairness and transparency. This analysis will also help us address the way EU governance rules seek to promote fairness in an economy where platforms' dominance was exacerbated by the Covid-19 pandemic. We believe that an in-depth understanding of these changes is essential for policymakers as well as key digital industry players and music associations to assess pros and cons of an increasingly pervasive dimension of EU law where copyright, contract law and various forms of platform regulation aim at governing an extended landscape of business models and music professionals that characterise the platform economy. This unprecedented policy analysis can produce, in our view, new knowledge on the impact of online platforms and of phenomena such as the Covid-19 pandemic on music production and dissemination to lead to solutions with a clear fairness uptake potential.

3.2. Law: copyright, contract law, and platform liability

Despite the adoption of the DSA and its broad attempt to introduce new obligations for very large online platforms, the most important form of regulation aimed at helping music right-holders exercise their rights in the social media landscape is Art.17 of the 2019 Copyright Directive.¹⁸ This provision aims at setting a new standard of copyright liability applicable to social media platforms and at excluding the (previously uncertain) application of liability exemptions embodied into Directive 2000/31 (e-Commerce Directive).¹⁹ From the time it was included (as Art.13) in the EU Commission's directive proposal in September 2016, this provision has been the target of an endless number of academic articles, studies, parliament interrogations, open letters, popular petitions, and other initiatives that aimed at flagging the "negatives" of the complex legal mechanism it incorporates especially for the protection of freedom of expression and 'Internet freedom'.²⁰ The volume and the strength of this critical

¹⁸ The complex infrastructure of the DSA is designed not to interfere, and to be complementary with, the copyright-specific mechanism of Art. 17: see, on this topic, João Pedro Quintais and Sebastian Felix Schwemer, 'The Interplay between the Digital Services Act and Sector Regulation: How Special Is Copyright?' (2022) 13 *European Journal of Risk Regulation* 191; Eleonora Rosati, 'The Digital Services Act and copyright enforcement: The case of Article 17 of the DSM Directive' in Maja Cappello (ed), *Unravelling the Digital Services Act package* (European Audiovisual Observatory 2021).

¹⁹ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market [2000] OJ L178/1 ("e-Commerce Directive").

²⁰ A non-exhaustive list of these initiatives includes the following ones: Sophie Stalla-Bourdillon et al (40 academics), *Open Letter to the European Commission – On the Importance of Preserving the Consistency and Integrity of the EU Acquis Relating to Content Monitoring within the Information Society*, available at <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2850483>, accessed on 15 October 2023; European Copyright Society, 'General Opinion on the EU Copyright Reform Package', 2017, available at

movement increased, and became even more apparent, as soon as the EU member states started transposing this provision in a rather inhomogeneous, scattered and (mostly) untimely manner.²¹ Such a broadly shared and vehement attack against this provision found its point of sublimation in the appeal the Republic of Poland brought against Art.17 before the Court of Justice of the European Union (CJEU) and that the Court eventually rejected.²²

Our research agenda, while duly considering the controversial aspects of this provision, as reflected in an exceptionally abundant literature, aims mostly at identifying its “positives”. We believe that only a fairness-centred reading and an evidence-based analysis of Art.17 and its national implementations can tell whether this legislative reform can strike a suitable balance between antagonist interests. A literature review shows that, from a constitutional perspective, many European legal scholars tend to place copyright and the rights of authors at a level that is lower than that of other fundamental rights. Several scholars write as if Internet users’ freedom of expression and the tech companies’ freedom to run their online businesses should systematically prevail over the authors’ expectation to enforce their rights and to receive fair remuneration for the exploitations of their work.²³ Despite the relevance of these remarks, this

<<https://europeancopyrightsocietydotorg.files.wordpress.com/2015/12/ecs-opinion-on-eu-copyright-reform-def.pdf>>, accessed on 15 October 2023; Max Planck Institute for Innovation and Competition (2017), Position Statement on the Proposed Modernization of European Copyright Rules: Art. 13, available at: <https://www.ip.mpg.de/fileadmin/ipmpg/content/stellungnahmen/MPI_Position_Statement_PART_G_incl_Annex-2017_03_01.pdf>, accessed on 15 October 2023. See also Cory Doctorow, ‘Four million Europeans’ signatures opposing Article 13 have been delivered to the European Parliament’ (EFF, 10 December 2018) <<https://www.eff.org/deeplinks/2018/12/four-million-europeans-signatures-opposing-article-13-have-been-delivered-european>> accessed on 15 October 2023. Among the academic contributions following the adoption of the directive, see Severine Dusollier, ‘The 2019 Directive on Copyright in the Digital Single Market: Some progress, a few bad choices, and an overall failed ambition’ (2020) 57 *Common Market Law Review*, p. 979, who describes Art.17 as a “monster provision” of this directive considering its size and “hazardousness”. At an earlier stage, very critical were scholars such as Giancarlo Frosio, ‘From Horizontal to Vertical: An Intermediary Liability Earthquake in Europe’ (2017) 12 *Journal of Intellectual Property Law & Practice* 565; and Martin Senftleben et al, ‘The Recommendation on Measures to Safeguard Fundamental Rights and the Open Internet in the Framework of the EU Copyright Reform’ (2018) 40 *European Intellectual Property Review*.

²¹ Eleonora Rosati, ‘The DSM Directive 3 years on: have we found our digital single market yet?’ (2022) 17 *Journal of Intellectual Property Law & Practice* 397.

²² Although this initiative was consistent with Poland’s dissenting vote at the time the EU Council adopted Directive 2019/790, this case suddenly transformed a notorious antagonist of EU institutions in the affirmation of human rights and of the rule law such as the Polish government (at least until very recently) into a noble and tireless paladin of freedom of expression. It is worth recalling that the Polish rule-of-law crisis culminated in infringement proceedings launched by the European Commission against Poland, alleging a failure to fulfil its obligations under Article 19(1)(2) of the Treaty of the European Union (TEU) and Article 47 of the Charter of the Fundamental Rights of the European Union. In the subsequent appeal, the CJEU ruled that Poland indeed infringed the principle of judicial independence under Article 19(1)(2) TEU when lowering the retirement age of Supreme Court judges: see case C-619/18 *European Commission v Republic of Poland* [2019] ECLI:EU:C:2019:531.

²³ For instance, a good example of how scholars focused mostly on the importance of safeguarding users’ freedom of expression and information in the online environment when implementing Art.17 of the 2019 Copyright Directive is provided by João Pedro Quintais, Giancarlo Frosio, Stef van Gompel, P. Bernt Hugenholtz, Martin Husovec, Bernd Justin Jütte and Martin Senftleben, ‘Safeguarding User Freedoms in Implementing Article 17 of the Copyright in the Digital Single Market Directive: Recommendations from European Academics’ (2019) 10 *JIPITEC*, 277-282. In a similar way, Geiger and Jutte claim that Art.17 fails to properly address the need to strike a fair balance between competing interests, emphasising the negative effect of filtering mechanisms on users’ fundamental rights: see Christophe Geiger and Bernd Justin Jütte, ‘Platform Liability under Art. 17 of the Copyright in the Digital Single

conclusion cannot be justified on the grounds of the European human rights framework if we consider that even the ECtHR, in several judgments, held that copyright, as a form of 'property', prevailed over other fundamental rights.²⁴ This conclusion is even clearer and stronger under EU law, considering the constitutionalisation of the EU Charter of Fundamental Rights. As recently held by the CJEU on the grounds the Charter, the complex provision of Art. 17 of the 2019 Copyright Directive can be viewed as a proportionate and legitimate attempt to ensure a fair balance between the protection of users' and online intermediaries' interests, on the one hand, and the rights of content creators' rights, on the other hand.²⁵ In the social media industry, the CJEU's reasoning in *Poland v Parliament and Council* emphasised that, although not inviolable and absolute, the right to intellectual property embodied into Art.17(2) of the EU Charter on Fundamental Rights is a human right whose high level of protection justifies the articulated regulation embodied into Art.17 of the 2019 Copyright Directive and supports its adoption and EU-wide enforcement.²⁶ This opinion is perfectly consistent with the continental-European approach to copyright and authors' rights as personality rights and human rights that give rise to moral and economic prerogatives.²⁷

Market Directive, Automated Filtering and Fundamental Rights: An Impossible Match' (2021) 70 GRUR International, 532-534. Other contributions emphasise how Art.17 can negatively impact on the platforms' freedom to conduct business: see, for instance, Julian Reda, Joschka Selinger and Micheal Servatius, 'Article 17 of the Directive on Copyright in the Digital Single Market: a Fundamental Rights Assessment' (2020) Gesellschaft für Freiheitsrechte, p. 42-49, claiming that the provisions of Art.17 are not capable of achieving a fair balance between fundamental rights to conduct a business as they place significant economic burden on online-content sharing service providers. See also Geiger and Jütte, mentioned above, p. 542, maintaining that Art.17 imposes immense efforts on social media platforms, restricting their freedom to conduct a business.

²⁴ Among the most recent judgments, see, for instance, ECtHR Case of *Fredrik Neij and Peter Sunde Kolmisoppi (The Pirate Bay) v Sweden*, Appl. nr. 40397/12 where the Court stressed that intellectual property - more specifically of the 'rights of the copyright-holders' - is a form of 'property' that benefits from the protection afforded by Art.1 of Protocol No. 1 to the ECHR against unauthorised dissemination of protected works through file-sharing technologies. At an earlier stage, ECtHR Case *Ashby Donald et autres c. France* - 36769/08 founded the protection of the copyright of fashion houses in their own creations (against unauthorised photographers invoking their right to freedom of expression) again on the grounds of the constitutional protection of 'property' under Art.1 of Protocol No. 1 of the ECHR. For a detailed review of the ECtHR case law on intellectual property rights, see Christophe Geiger and Elena Izyumenko, 'Intellectual Property before the European Court of Human Rights' in Christophe Geiger, Craig Allen Nard and Xavier Seuba (eds), *Intellectual Property and the Judiciary* (Edward Elgar 2018), p. 9.

²⁵ In C-401/19 *Poland v Parliament and Council* [2022] ECLI:EU:C:2022:297 the CJEU provides an analysis of the principle of proportionality under paragraphs 63-69 and explicitly states, in para. 82, that "in the context of the review of proportionality referred to in Article 52(1) of the Charter, it must be noted, first of all, that the limitation on the exercise of the right to freedom of expression and information of users of online content-sharing services, referred to in paragraph 69 above, meets the need to protect the rights and freedoms of others within the meaning of Article 52(1) of the Charter, that is, in this case, the need to protect intellectual property guaranteed in Article 17(2) of the Charter."

²⁶ See C-401/19 *Poland v Parliament and Council*, paras. 92-99.

²⁷ See Alain Strowel, 'Copyright strengthened by the Court of Justice interpretation of Article 17(2) of the EU Charter of Fundamental Rights', in Geiger, Nard and Seuba (n 24), p. 28, at p. 40-46, who emphasises how the constant, explicit reference to intellectual property as a fundamental right in the case law of the CJEU has played a central role in strengthening the protection and enforcement of copyright, especially in digital settings. As argued by this author, this explicit recognition under EU law provides an even stronger foundation for the qualification of authors' rights as human rights. This is consistent with Art.27(2) of the 1948 Universal Declaration of Human Rights at international level, which protects the *moral* and *material* interests of authors resulting from their scientific, literary, or artistic productions. It is worth recalling that while the concept of authors' rights as moral rights is eminently

Currently, the implementation of a principle of ‘fair balance’ based on the EU Charter of Fundamental Rights clearly shows that (i) the protection of authors’ rights can prevail on other fundamental rights and (ii) the resolution of disputes in this field, especially in online environments, requires the CJEU to engage in a case-by-case assessment of the various interests at stake.²⁸ Our research seeks to provide more than just a doctrinal analysis of the effective impact of the 2019 Copyright Directive in the European music sector. In doing so, we intend to embrace an evidence-based and neutral approach to Art. 17 only a minority of European scholars seem to have pursued, at least in the literature available in English.²⁹ To fill this gap, we will involve stakeholders and experts in empirical investigations to ascertain whether platform obligations, on the one hand, and copyright exceptions and the remedies embodied in Art.17 to protect media and artistic freedoms, on the other hand, are being effectively implemented across EU member states. Moreover, to assess more objectively the impact of content filtering measures, we will scrutinise music licensing practices, the use of content-recognition technologies and other forms of content moderation *before* and *after* the entry into force of Art.17’s national transpositions. This is relevant, in our view, also to understand whether these practices are well-established policies of social media services even in jurisdictions where a provision like Art. 17, a brand-new legal infrastructure such as the DSA, do not exist.

An equally relevant research gap in legal scholarship subsists as regards the interplay of Art.17 with other principles, rights and obligations embodied into Chapter 3 of the 2019 Copyright Directive. Our research project assumes that, without empirical investigations, it is impossible to assess the effects of these joint measures on the businesses of legacy music producers and new generations of music creators. As things stand, the above-mentioned legal principles of fairness, proportionate remuneration and transparency are likely to remain empty promises without the development of a new, data-driven approach to creators’ rights. This approach can only be based on availability of large volumes of data enabling music creators, their representatives and online exploiters to negotiate and conclude licensing agreements in a

European, it is gaining traction because of technological challenges even in systems –like the United States– that have historically neglected this concept: see, for instance, Mira T Sundara Rajan, ‘Moral rights: the future of copyright law?’ (2019) 14 *Journal of Intellectual Property Law & Practice*, 257–258.

²⁸ As stressed by Strowel (n 27), p. 40-52, the recent case law of the CJEU reveals a careful approach in the examination of copyright disputes in the digital environment. The author stresses how, in several cases, the principle of fair balance made copyright claims prevail over defences based on freedom of expression and other fundamental rights (such as the right to privacy) because of the necessity to guarantee a *high level* of protection to intellectual property rights, as embodied in the EU legislation and as requested under Art.17(2) of the EU Charter of Fundamental Rights. See, for instance: C-275/06 *Promusicae v Telefonica* [2008] ECLI:EU:C:2008:54; C-160/15 *GS Media v Sanoma et al.* [2016] ECLI:EU:C:2016:644; Case C-161/17 *Land Nordrhein-Westfalen v Dirk Renckhoff* [2018] ECLI: EU:C:2018:634; C-476/17 *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben* [2019] ECLI:EU:C: 2019:624.

²⁹ For a more positive view on Art.17’s impact on fundamental rights see, for instance, Julien Cabay, ‘Lecture Prospective De l’Article 17 De La Directive Sur Le Droit d’Auteur Dans Le Marché Unique Numérique : Vers Une Obligation De Filtrage Limitée Par La CJUE, Garante Du « Juste Équilibre »’, in Jacques de Werra (ed), *Propriété intellectuelle à l’ère du big data et de la blockchain* (Schultess 2020).

smooth, nuanced, machine-readable, transparent and, thus, *fair* manner.³⁰ Our research proposal assumes that, in data-analytics businesses like digital platforms, even subscription-based services that choose and curate their repertoires (negotiating and paying royalties to content creators) cannot ensure fair and proportionate remuneration without using reliable, standardised, and unequivocal copyright ownership and management information coming from the music sector.³¹ The research we advocate in this field goes beyond the state of the art by providing a cross-country, empirical analysis of the impact of recent copyright and contract law provisions embodied into the 2019 Copyright Directive and, at an earlier stage, Directive 2014/26 on copyright's collective rights management on the music industry, broadly defined.³² Our research includes an evaluation of how EU competition law and EU regulations (including the DSA, DMA and upcoming legislation such as the EU Artificial Intelligence Act³³ and the EU Data Act³⁴) can apply and have an impact in the domain of online music platforms. This will allow us to produce not only evidence-based policy recommendations, but also to formulate a law-data-and-technology concept built on the grounds of "co-creation" with industry stakeholders to identify and rank solutions to the problem of information asymmetry across online platforms in Europe.

3.3. Economics and business: music professionals and value networks

The music industry has been at the forefront of CCIs when it comes to the impact of technological advancements and related business model innovations. Currently, streaming platforms and social media are dominating the market, relying on their crucial position as intermediaries³⁵ and benefiting from winner-takes-all effects.³⁶ Their new business models,

³⁰ Giuseppe Mazziotti, 'A Data-Driven Approach to Copyright in the Age of Online Platforms' in Daniel J. Gervais (ed), *The Future of Intellectual Property* (Edward Elgar Publishing 2021).

³¹ The fact that prior attempts to improve rights information through standard tools such as the Global Repertoire Database (GRD) have largely failed can help solve a data-sharing dilemma that has only grown worse with the exponential increase in availability of content on access-based platforms. On the failure of the GRD see, for instance, Klementina Milosic, 'The Failure Of The Global Repertoire Database' (hypebot, 31 August 2015) <<http://www.hypebot.com/hypebot/2015/08/the-failure-of-the-global-repertoire-database-effort-draft.html>> accessed on 15 October 2023.

³² 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 [2014] OJ L84/72 ("CRM Directive").

³³ Draft Artificial Intelligence Act (n 7).

³⁴ Proposal for a Regulation of the European Parliament and of the Council on harmonised rules on fair access to and use of data [2022] COM(2022) 68 final ("Draft Data Act").

³⁵ Jean-Charles Rochet and Jean Tirole, 'Cooperation among competitors: Some economics of payment card associations' (2002) 33 *RAND Journal of economics* 549; Thomas Poell, David Nieborg and Jose van Dijck, 'Platformisation' (2019) 8(4) *Internet Policy Review* 1; David S. Evans, Andrei Hagiu and Richard Schmalensee, 'A survey of the economic role of software platforms in computer-based industries' (2005) 51 *CESifo Economic Studies* 189.

³⁶ Jean-Charles Rochet and Jean Tirole, 'Two-sided markets: a progress report' (2006) 37 *RAND Journal of Economics* 645.

favouring access over ownership,³⁷ and relying on the availability of vast amounts of (real-time) data, are accused of altering the value of content, particularly music. The music industry and its business models have constantly evolved with digitalisation and the growing domination of platforms.³⁸ Economists can contribute to interdisciplinary research by integrating the latest advancements in its analysis of value networks, of music professionals' perspectives and of innovative business models and providing a systemic contribution by its longitudinal perspective on ecosystems, its extensive surveys, and the use of quick-scan analysis to map large numbers of companies' business models.³⁹ This will notably allow the integration of the role of "professionalising amateurs",⁴⁰ a new category of content creators who act as YouTube, TikTok or other social media's partners, with a growing economic and cultural relevance. After YouTube's launch of its creator partnerships and programmatic advertising in 2006, these social media platforms started signing creators for the purpose of maximising value from their content and communities. More generally, the analysis of the economics and business of the music industry will consider the role played by data. A major disruption emerged from the availability of vast amounts of (real-time) data for music platforms. By translating data on user's music consumption into relevant metrics, some authors argue, the business model of the industry was reshaped, from music as a product to music as a service.⁴¹ This is the case for services relying on advertising (content-sharing services like YouTube, Spotify's free service) since data allows for the personalisation of advertising. This is, however, also the case with licensed services. For example, Spotify's freemium model has been strongly supported by the platform's focus on personalised content, which has been key in converting users to premium subscriptions.⁴² Curated user-specific playlists are part of their product offering and perceived value.⁴³

The economic analysis we advocate addresses the notion of fairness notably in relation to value networks. While there is an increasing policy interest to ensure that music streaming platforms are fair, there is a research gap regarding the industrial and music professionals'

³⁷ Geoff Luck, 'The psychology of streaming: exploring music listeners' motivations to favour access over ownership' (2016) 5 *International Journal of Music Business Research* 46.

³⁸ Poell, Nieborg and Dijck (n 35); Antonios Vlassis, Michèle Rioux and Destiny Tchéhouali, *La culture à l'ère du numérique: plateformes, normes et politiques* (Presses universitaires de Liège 2020).

³⁹ Leo Van Audenhove, Ilse Mariën and Dorien Baelden, Quick-scan analysis of multiple case studies, SMIT Policy Method Brief N°1 (2016).

⁴⁰ Cunningham and Craig (n 10) 11-14.

⁴¹ Alistair Croll, 'The music science trifecta: Digital content, the Internet, and data science have changed the music industry' (*O'Reilly*, 9 September 2015) <<https://www.oreilly.com/content/the-music-science-trifecta/>> accessed on 15 October 2023.

⁴² Jacob Kastrenakes, 'Spotify is personalising more playlists to individual users' (*The Verge*, 26 March 2019) <<https://www.theverge.com/2019/3/26/18282549/spotify-personalized-playlists-curation-more-songs>> accessed on 15 October 2023.

⁴³ Mansoor Iqbal, 'Spotify Revenue and Usage Statistics (2023)' (*Business of Apps*, 2 August 2023) <<https://www.businessofapps.com/data/spotify-statistics/>> accessed on 15 October 2023.

perspectives on fairness in the music platform market.⁴⁴ Since online platforms have become major enablers of music content flow, with unparalleled gatekeeping powers,⁴⁵ the remuneration of creators deeply depends on monetisation practices of platforms and on the ways through which algorithms expose information and cultural content.⁴⁶ However, to properly define this notion, there is an empirical gap regarding the industrial and music professionals' understandings on fairness in the music platform economy at both European and national levels.⁴⁷ This task is even more complex if we consider that the impact of Covid-19 on culture and the performing arts has led to re-evaluations about the power of these platforms, paving the way for in-depth research into how industry representatives from the tech and music sectors conceptualise the fairness of music streaming platforms and social media.⁴⁸ The dramatic consequences of the recent pandemic on the performing arts encouraged several countries to start public inquiries into the power of global platforms whose consequences are yet to be seen.⁴⁹

3.4. Computer science: influence of algorithms on music consumption

Despite being presented as easing consumer choices,⁵⁰ platforms' recommender algorithms are accused of lacking transparency,⁵¹ threatening the exposure of content diversity thereby challenging democracies,⁵² as well as violating consumers' rights and citizens' freedom of expression.⁵³ Algorithms have been accused of bias,⁵⁴ reinforcing discrimination in the real

⁴⁴ Andres Ferraro, Xavier Serra and Christine Bauer, 'What is fair? Exploring the artists' perspective on the fairness of music streaming platforms' in Carmelo Ardito and others (eds), *Human-Computer Interaction – INTERACT 2021* (12933 Springer 2021).

⁴⁵ Vlassis, Rioux and Tch  houali (n 38).

⁴⁶ Giuseppe Mazziotti, 'What is the Future of Creators' Rights in a Platform-Dominated Economy?' (2020) 51 *International Review of Intellectual Property and Competition Law* 1027.

⁴⁷ Ferraro, Serra and Bauer (n 44).

⁴⁸ Terry Flew and Rosalie Gillett, 'Platform policy: Evaluating different responses to the challenges of platform power' (2021) 12 *Journal of Digital Media & Policy* 231.

⁴⁹ Ibid.

⁵⁰ Pablo Castells, Neil J. Hurley and Saul Vargas, 'Novelty and Diversity in Recommender Systems' in Francesco Ricci, Lior Rokach and Bracha Shapira (eds), *Recommender Systems Handbook* (Springer 2015).

⁵¹ Tal Zarsky, 'The trouble with algorithmic decisions: An analytic road map to examine efficiency and fairness in automated and opaque decision making' (2016) 41 *Science, Technology, & Human Values* 118.

⁵² Engin Bozdag and Jeroen Van Den Hoven, 'Breaking the filter bubble: Democracy and design' (2015) 17 *Ethics and Information Technology* 249.

⁵³ Natali Helberger, 'Exposure diversity as a policy goal' (2012) 4 *Journal of Media Law* 65.

⁵⁴ Engin Bozdag, 'Bias in algorithmic filtering and personalization' (2013) 15 *Ethics and information technology* 209.

world, notably linked to race and gender,⁵⁵ and further increasing the popularity of superstars, blockbusters and best-sellers at the expense of minority perspectives, local content and emerging artists.⁵⁶ Our research project will highlight the effective influence of algorithms and aim to understand the way algorithms are being designed and implemented by different platforms.⁵⁷ Data is part of the algorithmic systems (especially recommender systems) that build this crucial personalisation process. Technological and economic developments have led to the availability of overwhelming quantities of digital content, notably music.⁵⁸ While some physical limitations have disappeared (for instance: space for storing, time for scheduling), others remain, notably users' attention and what can be displayed to users (for instance: what a Spotify or YouTube user sees when connecting to the platform). Because of 'overchoice',⁵⁹ item selection can become cumbersome and complicated.⁶⁰ This makes it crucial, especially for media content providers, to incorporate algorithms that allow for a flexible and immediate response and adjustment to personal preferences of content consumers. Such algorithms automatically filter, rank and recommend content.⁶¹ They influence the display or recommendation of content. Hence, they are not neutral, and they raise questions as to how they are designed and implemented, who decides such matters, and on which basis. Beyond platform providers, all stakeholders in the music industry develop strategies and business models to cope with them and adapt them to their own objectives.

Our research aims to produce new knowledge on the way platforms are affecting music diversity across the consortium members' countries. Extending the work by Snickars and Mähler of detecting and mapping patterns in Spotify's recommendation service algorithmic auditing,⁶² we will innovate on a shortcoming of their work: access to data. Instead of using fictitious, stereotypical bots acting as users, we believe that this research would be more meaningful and fit for purpose with the recruitment of a sufficiently broad and diverse number of real users (for instance: +1000) who could donate their playlist data on the grounds of their

⁵⁵ Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York University Press 2018).

⁵⁶ Efrat Nechushtai and Seth C. Lewis, 'What kind of news gatekeepers do we want machines to be? Filter bubbles, fragmentation, and the normative dimensions of algorithmic recommendations' (2019) 90 *Computers in Human Behavior* 298.

⁵⁷ Jiawei Chen and others, 'Bias and Debias in Recommender System: A Survey and Future Directions' (arXiv:2010.03240 [cs.LG] 2020) <<http://arxiv.org/abs/2010.03240>> accessed 15 October 2023.

⁵⁸ Michael Masnick and Michael Ho, 'The sky is rising, 2014 edition' (Floor64, October 2014) <<https://www.ccianet.org/wp-content/uploads/2014/10/Sky-Is-Rising-2014.pdf>> accessed on 15 October 2023.

⁵⁹ John T. Gourville and Dilip Soman, 'Overchoice and assortment type: When and Why Variety Backfires' (2005) 24 *Marketing science* 382.

⁶⁰ Matevž Kunaver and Tomaž Požrl, 'Diversity in recommender systems—A survey' (2017) 123 *Knowledge-based systems* 154.

⁶¹ Mario Haim, Andreas Graefe and Hans-Bernd Brosius, 'Burst of the filter bubble? Effects of personalization on the diversity of Google News' (2018) 6 *Digital journalism* 330.

⁶² Pelle Snickars, 'More of the Same – On Spotify Radio' (2017) 9 *Culture Unbound Journal of Current Cultural Research* 184; Pelle Snickars and Roger Mähler, 'SpotiBot: Turing testing spotify' (2018) 12 *Digital Humanities Quarterly*.

right to access personal data collected and stored by a streaming services and social media companies under Art.20 of the General Data Protection Regulation (GDPR).⁶³ Although the recruitment of users as personal data donors can be difficult, their involvement can be spurred through a data donation campaign across EU countries and symbolic or little monetary rewards that motivate users beyond their ethics-driven participation.

User data is very useful to measure the influence of algorithms on music consumption because patterns in personal playlists can be compared against one another and with curated playlists obtained from several radio broadcast channels in each of the countries where the investigation takes place. Moreover, qualitative in-depth interviews on music habits, perception of bias, diversity, and serendipity with 100 users can add a qualitative dimension to the interpretation of the playlist data. An important contribution here can be the development of fairness indicators for online platforms' algorithmic systems based on the analysis of the data collected. To do this analysis, Fair MusE's data scientists can rely on the use of Human-Num⁶⁴ and Dataiku,⁶⁵ a free software platform to analyse machine-learning algorithms, predictive models, and big data. Indeed, with the data, and statistics related, this research can lead to an in-depth data analysis of the way platforms and their algorithms are working and influencing consumers. With that input, this new research can go further than previous research⁶⁶ by addressing the concept of fairness in a broader way through the development of indicators related to several dimensions.

4. Our ethos

While disciplinary expertise is core to our work, its interdisciplinary deployment is what makes our research and its empirical investigations meaningful and promising. We believe that, to address a multi-faceted concept such as fairness and to use it as an effective and desirable policy and legal instrument in the music sector, the approach shall necessarily be interdisciplinary. New criteria, methodologies, and tools are required.

4.1 The concept of 'fairness' and its special function in the CCIs

Recent developments in EU law and policymaking clearly show a strong and fast-growing policy interest in the notion of 'fairness' in digital markets and ecosystems. Although this notion has various, conflicting facets, EU policy and legislative initiatives where the European

⁶³ 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 [2016] OJ L119/1 ("GDPR").

⁶⁴ Human-Num is a French infrastructure that aims at supporting research communities by providing services, assessment and tools on digital research data. See <<https://www.huma-num.fr/>>, accessed on 15 October 2023.

⁶⁵ See <<https://github.com/dataiku>> , accessed on 15 October 2023.

⁶⁶Alessandro B. Melchiorre and others, 'Investigating gender fairness of recommendation algorithms in the music domain' (2021) 58 Information Processing & Management 1.

Commission is currently exploring the function of 'fairness' clearly aim to promote awareness of how certain structural factors can radically reduce the economic output and social welfare in several industries.⁶⁷ Especially in the CCIs, the principle of fairness is expected to reduce financial losses for content creators that are significant not only in terms of economic growth but also in terms of sustainability of Europe's cultural and linguistic diversity.⁶⁸ From this angle, the music sector is exceptionally relevant and complex if we consider its vastness as a cultural and commercial phenomenon and that music is created and enjoyed everywhere, including low-income areas and communities where more expensive and complex types of creative works cannot be produced.

Our research seeks to shed light on the economic, cultural, societal, and technical context of EU music ecosystems where a great variety of composers, performers, record labels and platform artists target very different audiences, in terms of size and geographical scope, without knowing how the main digital music gatekeepers treat, promote, and commercially exploit their works. In this regard, the notion of fairness stands not only as a prerequisite for the pursuit of goals such as sustainability and competitiveness of an entire industry but also as a guarantee of consistency and compliance with the EU's constitutional obligation to preserve and promote cultural diversity of artistic productions. An important assumption of our research agenda is that EU lawmakers believe that a genuinely diverse music ecosystem can thrive only on the grounds of contractual and economic fairness. This presupposes much greater transparency in collective rights management, data collection and proportionate remuneration of individual authors and performers. Yet, these values, which have been recently embodied in EU legislative measures, are far from materialising in market realities nor in the day-to-day activities of music creators and their commercial and cultural partners.

4.2. Interdisciplinary effort to elaborate new criteria, methodologies and tools

Our investigation entails considering a broad variety of online and offline environments where music professionals are involved; and assessing contemporary uncertainties on music's economic and societal value and how they challenge creators' opportunities to thrive and make a living. We believe that, notwithstanding the exceptional challenges that platformisation poses to a (hopefully) more transparent, competitive, and sustainable music sector in Europe, the current situation holds potential to take the opportunity of digitalisation to help a great variety of music creators gain notoriety beyond local or national borders and to overcome physical limitations. To investigate the impact of platforms on CCIs, a truly interdisciplinary team and approach are needed to connect media production, dissemination and use on the one hand, and the legal conditions that are expected to achieve public policy goals, on the other hand. Where our research seeks to innovate the most has to do with tackling 'fairness' from a conceptual perspective, considering it as a complex concept that requires interdisciplinarity and the analysis of several stakeholders' perspectives and points of view. In a digital media economy where the largest gatekeepers are data-analytics businesses, appealing content such as music (in both audio and audiovisual formats) is used to attract and keep users active on the gatekeepers' platforms for as long as possible.

⁶⁷ See various legislative initiatives of the European Commission, cited above (n 7).

⁶⁸ See the Treaty on the Functioning of the European Union (TFEU), Art. 167, par. 4.

Our approach to the notion of fairness from policy, legal, economic and technical perspectives considers the various challenges raised by the advent and domination of platforms such as YouTube, Spotify and, more recently, TikTok. Our research project is designed to unveil how today's music industry can significantly improve and evolve in terms of transparency and access to relevant data. So far, the digital music sector has been dominated by trade secrecy, which has made it very difficult for policy makers to intervene in developing appropriate policy measures.⁶⁹ Our assumption is that greater transparency in the music sector and broader societal participation could help fight some phenomena that systematically penalise the majority of performing artists, music composers and content producers. These phenomena include the implementation of unfair algorithmic systems and a race to the bottom that leads to the degradation of the commercial value of professionally created music and unfair remuneration. Our research also assumes that there is an exceptionally complex problem of data asymmetry across different stakeholders in the value chains, insofar as online platforms treat data about artist and content producers' compensation and modes of content supply, exploitation, and consumption as a trade secret, claiming they need to protect data from industrial competition. The restricted access to data raises major issues in terms of accountability, and of establishing a level playing field in the music sector. Lack of transparency also prevents the development of policy measures to promote fairness and diversity in a post-Covid-19 context.

In Fair MusE, we aim to investigate whether and how platforms have effectively enabled new forms of music production and home-made creations that empower amateur, early career or disenfranchised categories of authors ("professionalising amateurs") to gain online exposure, build and curate new audiences and eventually become well-established music professionals.⁷⁰ At the same time, this type of analysis will enable the consortium to assess whether content platforms have induced a significant impoverishment of creators of niche or marginal repertoires that seem to be penalised by the logic and functioning of algorithms.⁷¹

4.3. Our agenda's major obstacles

In the design of our research project and building on the experience of the consortium partners, we have tried to identify potential challenges, the biggest of which is certainly the secrecy of the data our research is expected to collect and draw upon. Our project deals with issues that are very sensitive – commercially and technically - for major economic and political stakes at European and global levels. We are aware of the difficulties this might raise, especially when liaising with the tech companies owing very large platforms and music services. For this reason, our research plan relies on multiple data collection sources and seeks to take advantage of duties of data disclosures that, under certain conditions, EU law imposes on data controllers and processors.

⁶⁹ Sofia Johansson, Ann Werner, Patrik Åker, and Greg Goldenzwaig, *Streaming Music: Practices, Media, Cultures* (Routledge 2018) 165.

⁷⁰ Cunningham and Craig (n 10) 11-14.

⁷¹ Mazziotti (n 30) 214-215.

Another difficulty for research dealing with exceptionally large corporate interests as those that exist in the music sector and, even more so, in the tech industry is that of developing normative recommendations on the EU policy and legal frameworks towards creators, business strategies or large media environments while facing the risk of capture and lack of neutrality that could weigh upon each research or communication initiative. Research taking copyright and creators' rights as one of its main pillars is subject to taking a lot of, not necessarily justified, criticism. We know that scientists cannot avoid being drawn into the controversies they are investigating.⁷² In any case, while acknowledging that it can be difficult, especially for social scientists, to ensure neutrality and objectivity when investigating issues that touch upon their values, groups, and cultures,⁷³ our objective is to have a balanced approach that relies on critical thinking without ever transforming it into activism.

Another set of challenges comes from the strongly interdisciplinary nature of our research. Public research funding agencies promote and identify interdisciplinarity, but organisational constraints can restrict their capacity to fully embrace novel ways of interdisciplinary collaboration and investigation.⁷⁴ More generally, researchers from different disciplines and different countries work in different contexts, share different objectives, and may simply differ in terms of vocabulary used. Regarding the context, Friedman argues that institutional structures and funding patterns (among others) make interdisciplinary research difficult.⁷⁵ One could simply add that researchers working in social sciences in labs or under remote working arrangements (by necessity or by choice) have a totally different experience from their fellows working in biological labs. Moreover, different objectives can be illustrated by the fact that while there are "few more familiar aphorisms in the academic community than 'publish or perish'",⁷⁶ the length, the type of outlet (e.g., journal vs conference proceedings or monographs), the usual number of authors, etc., varies greatly from one discipline to another. As regards different vocabularies, they are at the core of our work on the multi-faceted notion of fairness. More generally, this challenge relates to the fact that sector-specific differences in methodologies can quickly emerge during interdisciplinary research efforts.⁷⁷ Rogers et al. even suggest that interdisciplinary research can be difficult to achieve due to incommensurable positions adopted

⁷² Pam Scott, Eveleen Richards and Brian Martin, 'Captives of Controversy: The Myth of the Neutral Social Researcher in Contemporary Scientific Controversies' (1990) 15 *Science, Technology & Human Values*, 474 - 494.

⁷³ Fred D'Agostino, 'Social Science as a Social Institution: Neutrality and the Politics of Social Research' (1995) 25 *Philosophy of the Social Sciences*, 396 - 405.

⁷⁴ Thomas König and Michael E. Gorman, 'The challenge of funding interdisciplinary research: A look inside public research funding agencies' in Robert Frodeman (ed), *The Oxford Handbook of Interdisciplinarity* (Oxford University Press, 2nd ed, 2017).

⁷⁵ Ken Friedman, 'The challenge of interdisciplinary research' (2013) *Proceedings of the 9th ACM Conference on Creativity & Cognition*.

⁷⁶ Mark De Rond and Alan N. Miller, 'Publish or Perish: Bane or Boon of Academic Life?' (2005) 14(4) *Journal of Management Inquiry*, 321.

⁷⁷ Denise Lach, 'Challenges of Interdisciplinary Research: Reconciling Qualitative and Quantitative Methods for Understanding Human-Landscape Systems' (2014) 53 *Environmental Management*, 88-93.

by different disciplines.⁷⁸ Cultural differences - as one may find in large European research projects - may add to the difficulty to understand each other. Arguably, some of the interdisciplinary collaborations envisaged in Fair MusE are more common than others (for instance: between law and economics) but our mix is more peculiar. Finally, one challenge could be that interdisciplinary research potentially detracts from researchers' expertise. While learning from others, researchers may end up spending less time developing their disciplinary expertise. That's notably because interdisciplinary research involves negotiating conflicts.⁷⁹ Sanz-Menéndez therefore finds that interdisciplinary research can lead to both specialisation and fragmentation, depending on the research area.⁸⁰

5. Putting our research agenda into practice

From a methodological perspective, we believe that a Two-Phase structure can allow us to pursue our research agenda and put our idea of integrating different disciplinary elements into practice.

5.1 Phase 1

Phase 1 (M1 - M24, where 'M' stands for 'Month') is designed essentially as a two-year mapping exercise in which four research hubs (which include industry partners) will split into two groups: (i) Law and Political Science, on the one hand, and (ii) Economics and Computer/Data Science, on the other. The former focuses on the role of EU regulation, assessing the impact of new or recent policy- or law-making initiatives targeting online platforms on the pre-existing law & policy scenario (as detailed in Sect 5.1.1). The latter analyses the complexities of music platforms from the perspectives of music professionals and their business models (see Sect 5.1.2) and of consumers, where our computer scientists analyse the influence of algorithms on music diversity (Sect 5.1.3).

5.1.1. Assessing the Role of Regulation

5.1.1.1 Analysis of normative and policy framework

⁷⁸ Yvonne Rogers, Mike Scaife, and Antonio Rizzo, 'Interdisciplinarity: an Emergent or Engineered Process?' in Sharon J. Derry, Christian D. Schunn, Morton Ann Gernsbacher (eds), *Interdisciplinary Collaboration: An Emerging Cognitive Science* (Taylor & Francis 2005).

⁷⁹ Dominic Villeneuve, David Duran-Rodas, Antony Ferri, Tobias Kuttler, Julie Magelund, Michael Mögele, Luca Nitschke, Eriketti Servou, and Cat Silva, 'What is Interdisciplinarity in Practice? Critical Reflections on Doing Mobility Research in an Intended Interdisciplinary Doctoral Research Group' (2020) 12 Sustainability 197.

⁸⁰ Luis Sanz-Menéndez, María Bordons and Maria Angeles Zulueta, 'Interdisciplinarity as a multidimensional concept: its measure in three different research areas' (2001) 10 Research Evaluation, 47-58.

Our project explores, among others, the domain of music policy and law making through an in-depth critical analysis of EU instruments, reports and proposals.⁸¹ The consortium will pay special attention to the 2019 Copyright Directive and to the overarching framework for the EU Commission's actions in support of the European music sector: 'Music Moves Europe'.⁸² Both instruments are exceptionally important pillars of the EU music sector policy, seeking to address key concerns of this industry and professionals in terms of financial aid, intellectual property rights regulation and subsidies. Considering that fairness has been a key driver for rethinking the sector-specific objectives of EU policy initiatives,⁸³ it is crucial for our project to explore the role of policymaking over the past few decades and to understand the evolution of this field and how (and when) 'fairness' became a priority.

5.1.1.2 Music creators' rights under EU law

This part of our work focuses mainly on the rights and other prerogatives originating from the implementation of Directive 2001/29 (the so-called 'Information Society' Directive),⁸⁴ the 2014 Collective Rights Management (CRM) Directive and the 2019 Copyright Directive. We will investigate the practical implications of authors' and performers' rights to transparency, fair remuneration and contractual adjustments (and, possibly, revocation) of their copyright transfers, as laid down in Chapter 3 of the 2019 Copyright Directive. This will be done by analysing standard 'Terms of Service' of each of the aforementioned platforms because they play an essential function from a copyright point of view, granting social media companies a free, global, perpetual and non-exclusive licence, which covers the original work each user-

⁸¹ Relevant instruments and reports include: Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (2000) OJ L178/1 ("e-Commerce Directive"); 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 (2001) OJ L167/10; Regulatory framework for electronic communications and services (2003); Commission, 'A Digital Agenda for Europe' (Communication) COM (2010) 245 final; Commission, 'A Digital Single Market Strategy for Europe' (Communication) COM (2015) 0192 final; Commission, 'The AB Music Working Group Report' (2016) Publications Office of the European Union <<https://op.europa.eu/en/publication-detail/-/publication/f5479d95-2fca-11e7-9412-01aa75ed71a1>> accessed on 15 October 2023; Commission, 'New European Agenda for Culture' (Communication) COM (2018) 267 final; Commission, 'Proposal for a Regulation establishing the New Creative Europe programme' COM (2018) 366 final; Council Conclusions on the Work Plan for Culture 2019-2022 [2018] OJ C460/12; Commission, 'Music Moves Europe - First Dialogue Meeting-Report' (2019) <<https://culture.ec.europa.eu/sites/default/files/library/mme-conference-report-web.pdf>> accessed on 15 October 2023; 2019 Copyright Directive; Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector (Digital Markets Act) COM (2020) 842 final; Proposal for a Regulation of the European Parliament and of the Council on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC COM (2020) 825 final; Commission, 'Report from the Conference 'Diversity and Competitiveness of the European Music Sector' with EU Member States Experts' (2021) <<https://culture.ec.europa.eu/document/report-conference-diversity-and-competitiveness-european-music-sector-eu-member-states-experts>> accessed on 15 October 2023.

⁸² Commission, 'Music Moves Europe - First Dialogue Meeting-Report' (2019) <<https://culture.ec.europa.eu/sites/default/files/library/mme-conference-report-web.pdf>> accessed on 15 October 2023.

⁸³ See various legislative initiatives of the European Commission, cited above (n 7).

⁸⁴ 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 [2001] OJ L167/10 ("Information Society Directive").

creator uploads. This analytical exercise will have long-term utility as the DSA imposes more stringent obligations on VLOPs.⁸⁵

5.1.1.3 Copyright liability of social media platforms

This section focuses on the scope and implications of Art. 17 of the 2019 Copyright Directive and of its national transpositions.⁸⁶ We will verify how social media companies seek to obtain licences for all works uploaded by their users and how they eventually restrict access to unauthorised works without infringing on users' fundamental rights and freedoms. For this task academics and experts from the consortium's industry partners, authors' collecting societies and music right-holders' representatives who are members of Fair MusE's Advisory Board will cooperate closely.⁸⁷

5.1.1.4. Collective rights management in Europe

One of our research assumptions is that the global reach of social media and their multi-territorial distribution of music has been at odds with collective rights management, which has traditionally been fragmented from a territorial perspective, ultimately on the grounds of copyright's territoriality.⁸⁸ Fair MusE aims to analyse the governance and licensing practices of EU collecting societies, especially for digital uses, as a result of the implementations of the CRM Directive. This analysis is essential to evaluate whether EU law has paved the way for an adequate music metadata infrastructure and the emergence of music data collection standards.⁸⁹ From a music licensing perspective, our main goal is that of ascertaining whether the EU has succeeded in reducing the very high transaction costs that, until adoption of this directive in 2014, made fair remuneration of various music rights-holders very difficult if not impossible.⁹⁰

5.1.1.5. EU competition law

We believe that traditional competition law remedies and the European Commission's investigations in this field have a significant role to play in targeting potentially anticompetitive

⁸⁵ Arts. 33-43 DSA.

⁸⁶ On this front, our analysis will be comparative in nature by comparing the copyright treatment of user-generated content platforms under EU and US law, in particular the case law based upon the US Digital Millennium Copyright Act (DMCA) 1998, which amended the US Copyright Act (17 US Code), Sect. 512(c).

⁸⁷ For the full list of the Advisory Board's members, see the Fair Muse's website at <<https://fairmuse.eu/team/>>, accessed on 15 October 2023.

⁸⁸ See Cunningham, Craig (n 10) 15, where the authors emphasise that social media entertainment is largely born global because its content is not primarily based on intellectual property control (as it is, instead, in the film and TV broadcasting sectors); Mazziotti (n 30).

⁸⁹ CRM Directive (n 32).

⁹⁰ Heritiana Ranaivoson, Maria Iglesias and Anna Vondracek, 'The costs of licensing for online music services. An exploratory analysis for European services' (2013) 21 Michigan State International Law Review 665.

practices of dominant music platforms and social media.⁹¹ This work includes a comparative analysis of the US and EU legal and music market scenarios. For several reasons, US federal antitrust law seems unfit (at least until recently) to remedy the extreme corporate power that the largest platform owners have acquired.⁹² This situation sharply contrasts with that of the EU, where competition law has been widely used against tech companies' abuses of their dominant position and where policy makers are trying to prevent these abuses through ex ante regulation.

5.1.1.6. Platform regulation and soft law instruments

Fair MusE's team will consider the interplay between copyright-specific rules in the 2019 Copyright Directive and general obligations of digital platforms arising from regulations such as the DSA and the DMA. Considering that some of the largest online music platforms are qualifying, under the above-mentioned regulations, as 'very large online platforms' and/or 'gatekeepers', we will map and evaluate how data access rights and protection mechanisms enshrined in these regulations impact on music right-holders' *effective* participation and business on platforms. This work presupposes an analysis of automated decision-making procedures and music platforms' content moderation policies, also to understand how many of these activities rely on standardisation, certification procedures or human review. Our analysis includes soft law instruments, such as codes of conduct and best practices, which might prove essential to promote fairness towards music creators by enhancing data transparency and facilitating fair and proportionate remuneration.

5.1.2 Platforms, business models and professionals in the music industry

5.1.2.1 From Value Networks in the music industry to new music ecosystems

Our research project analyses the evolutions in the music industry considering the implications of dematerialization, of the dominance of platforms and their increasing reliance on algorithmic systems to filter and recommend content. To do so, based on a methodology applied in previous research,⁹³ we will map 'value networks' and the inter-relations between actors. To this end, our researchers will identify: (i) the value chains and related activities; (ii) the different

⁹¹ The project also aims to consider the recent actions of the French, German and Italian competition authorities that have been particularly active in enforcing competition rules against large online platforms. See, for instance, as regards the French Competition Authority: Decision 21-D-11 of June 07, 2021, against Google regarding practices implemented in the online advertising sector; Decision 22-D-12 of June 16, 2022, against Meta regarding practices implemented in the online advertising sector. As regards the German Competition Authority, see Decision B6-22/16 of 6 February 2019 against Facebook for data handling practices; Decision V-43/20 of 21 December 2022 against Google for data handling practices in the case of Google News Showcases. In Italy, see the proceedings launched in April 2023 by the Italian Competition Authority against Meta for abuse of economic dependence towards SIAE, available at <<https://www.agcm.it/dotcmsdoc/allegati-news/A559%20avvio%20e%20caut.pdf>>, accessed on 15 October 2023.

⁹² See, for instance, Tim Wu, *The Curse of Bigness: Antitrust in the New Gilded Age* (Columbia Global Reports 2018), p. 132.

⁹³ Isabelle De Voldere and others, 'Mapping the Creative Value Chains. A study on the economy of culture in the digital age' (Publications Office of the European Union, 2017) <<https://op.europa.eu/en/publication-detail/-/publication/4737f41d-45ac-11e7-aea8-01aa75ed71a1>> accessed on 15 October 2023.

stages in the value chains that compose the Value Networks (including content creation, content production, distribution and placement, support environment and support industries); (iii) the different actors (both generic names and actual examples of key players) in a process of stakeholder mapping. At the same time, our researchers will analyse relations between the different actors and possible schematic relations with other Value Networks, mapping inter-relations among, and multi-directional flows of value between, the actors and the process of value creation.

Our research will go beyond the deployment of a 'value network' analysis by incorporating business perspectives that are targeted at platform-centred and platform-led networks and ecosystems. The added value of applying also 'ecosystem' theories⁹⁴ consists of being able to address a wider range of factors (including regulation, music education, live performances, etc.) that determine how value is being created in the music industry.

The above-mentioned analysis will allow us to observe the impact of online music platforms beyond online streaming consumption. This impact is, first, in the online realm, between uses on different platforms (for instance: how the use of a track excerpt on Tik Tok can lead to an increase of this track's exposure on streaming platforms) but also in the interactions between online and more traditional offline uses, such as the cross-effects between live performances and online consumption. Our analysis will finally address fairness from an economic perspective, especially in relation to the 'value gap' debates, and more generally issues of creators' remuneration,⁹⁵ in close connection with the project's legal analysis (see Sect 5.1.1. *supra*).

5.1.2.2. Conflictual and consensual aspects of fairness that digital industry and music professionals consider relevant for platforms

Our project will investigate what 'fairness' actually is, not only for music professionals but also for the online platform providers themselves. At the European level, the focus will be on six key European associations: DIGITALEUROPE, DOT Europe, European live music association, European Music Council, European Composer and Songwriter Alliance and IMPALA.⁹⁶ Data collection will draw on desk research (notably grey literature documents

⁹⁴ Ivana Kostovska, Tim Raats, Karen Donders & Pieter Ballon (2021) Going beyond the hype: conceptualising "media ecosystem" for media management research, *Journal of Media Business Studies*, 18:1, 6-26, DOI: 10.1080/16522354.2020.1765668

⁹⁵ Keith Negus, 'From creator to data: the post-record music industry and the digital conglomerates' (2019) 41 *Media, Culture & Society* 367.

⁹⁶ DIGITALEUROPE is an organisation that represents the digital technology sector in Europe. See <<https://www.digitaleurope.org/>>, accessed on 15 October 2023.

DOT Europe is an association of the main Internet companies active in Europe, including leading social media and streaming platforms. See <<https://doteurope.eu/>>. accessed on 15 October 2023.

European live music association is a non-profit organisation that supports the European live music industries. See <<https://www.elmnet.org/>>, accessed on 15 October 2023.

coming from the six associations) and will further be gathered through the conducting of semi-structured interviews.

At Member State level, the goal is to explore (i) whether fairness is related to the remuneration of music composers and the rights for authors in relation to the use of their works by platforms and (ii) whether fairness is perceived as connected with additional aspects, such as the role of online platforms in fostering cultural diversity, the creation of a level playing field for independent digital distribution platforms, etc. We will place special emphasis on the perception and use of algorithms (for instance: recommender systems) by authors and music professionals, seeking to explore how they understand algorithms' influence and whether they adapt their works to fit the platforms' expectations. Data collection will draw on an online panel survey deployed simultaneously towards digital industry and music associations in Fair MusE's eight countries of investigation (Portugal, Austria, Belgium, Denmark, Estonia, France, Greece, and Italy). Potential differences between MS deriving from the size of the music market and their different systems of subsidies to the music sector will meaningfully enrich the analysis carried out.

5.1.2.3. Online music platforms from a business model angle

Our analysis will finally map business models, combining research methods including desk research, expert interviews, and case studies. Our framework to map innovative business models will be based notably on the Business Model Matrix⁹⁷ and the Business Model Canvas.⁹⁸ Based on the main types of actors identified previously, this work will produce a two-step business model analysis. First, based on quick-scan analysis,⁹⁹ we will map all main business model features of all main types of stakeholders. It is expected that these main stakeholder categories are authors, distributors, and (playlist) curators. Second, we will conduct an in-depth analysis of at least 6 platforms with innovative models being active in the EU. While online platforms have already been largely defined and researched, an in-depth analysis of online music platforms from a business model angle is still missing. We will conduct semi-structured interviews with selected organisations and companies to produce in-depth case studies.

5.1.3 Consumers, platforms and music diversity

European Music Council is a non-profit organisation whose mission is to develop and promote music of all genres and types. See <<https://www.emc-imc.org/>>, accessed on 15 October 2023.

European Composer and Songwriter Alliance (ECSA) focuses on protecting and advancing the rights of composers and songwriters. See <<https://composeralliance.org/>>, accessed on 15 October 2023.

IMPALA is the European organisation for independent music companies and national associations. See <<https://www.impalamusic.org/>>, accessed on 15 October 2023.

⁹⁷ Pieter Ballon, 'Business Modelling Revisited: The Configuration of Control and Value' (2007) 9 Info 6.

⁹⁸ Alexander Osterwalder and Yves Pigneur, *Business model generation: a handbook for visionaries, game changers, and challengers* (John Wiley & Sons 2010).

⁹⁹ Audenhove, Mariën and Baelden (n 39).

5.1.3.1. In-depth assessment of the influence of algorithms on music consumption

Finally, our Phase 1's research will include the consumer side of platforms, trying to analyse how these platforms and their algorithms impact consumers and, conversely, the strategies end-users may deploy to access, discover and remain informed about music thanks to, or despite, platforms. This is also crucial for EU policy makers to effectively promote a fair and sustainable ecosystem. This work will help us make a synthesis of the various issues that have been encountered in research so far, especially as regards the practical effects of algorithms' (including recommender systems and playlists) design on Internet users.

5.1.3.2. Quantitative approach and data analysis

Our team will examine the effective influence of algorithms in the context of music recommender systems by using a quantitative approach and data analysis. We will rely on existing methods in the analysis of recommender systems,¹⁰⁰ extending Snickars & Mähler's¹⁰¹ analysis of algorithms beyond Spotify.¹⁰² We will apply a broader and innovative approach to the collection of playlist data by replacing stereotypical fictitious users with +1000 real users donating their platform-derived data donations.¹⁰³ We will compare the +1000 anonymised playlists against each other and against playlists from 80 broadcast radio channels (i.e., 10 from each of the eight EU countries within the consortium). This way we will be able to map playlist patterns; characterise diversity and bias in personalised playlists - which represents actual listening - with the curated playlists coming from broadcast radios. Qualitative in-depth interviews on music habits, perceptions of bias,¹⁰⁴ diversity and serendipity with approximately 100 users (selected among those who donate their historical playlist data) will add a qualitative dimension to the interpretation of the playlist data. Interviews with broadcast editors responsible for playlists, curation, editorial profile and rotation policies, and with representatives of online music platforms, will add an interpretative dimension to the analysis of broadcast music programming.

5.1.3.3. Fairness indicators

¹⁰⁰ Felicia Loecherbach and Damian Trilling, '3bij3—Developing a framework for researching recommender systems and their effects' (2020) 2 Computational Communication Research 53.

¹⁰¹ Snickars and Mähler (n 62).

¹⁰² Andres Ferraro and others, 'Artist and style exposure bias in collaborative filtering-based music recommendations' (arXiv:191104827 [cs.LR] 2019) < <https://arxiv.org/abs/1911.04827> > accessed on 15 October 2023.

¹⁰³ Cornelius Puschmann, 'Beyond the bubble: Assessing the diversity of political search results' (2019) 7 Digital Journalism 824.

¹⁰⁴ Melchiorre and others (n 66).

Finally, based on our previous work, our research team will produce fairness indicators in terms of platform transparency¹⁰⁵ and bias in recommender systems - as in Htun¹⁰⁶ and Mehrotra¹⁰⁷ - regarding algorithmic systems that are currently being used in the online platforms the project will end up scrutinising. By characterising the mechanics of the music recommender system algorithms as well the programming policies of many broadcast channels, our research team will highlight effective variables indicating whether a given platform is fair and gives rise to a sustainable music business, while further suggesting a predictive model that can mitigate the effects of these algorithms from a music diversity perspective.

5.2 Phase 2

In Phase 2 (M25-M36) we envisage the delivery of research outcomes addressed to policy makers and stakeholders (Sect 5.2.1, 5.2.2 and 5.2.3) alongside a comprehensive set of policy recommendations embedded in a White Paper on fairness in Europe's music ecosystems (Sect 5.2.4).

5.2.1. Music Copyright Infrastructure

A fair music ecosystem where online services play an increasingly important role needs to address the current lack of adequate data infrastructures through standardisation and sharing of content identifiers and music repertoire information, without which online music exploitations cannot be rewarded in a fair and proportionate way. To this end, we intend to develop a pilot named 'Music Copyright Infrastructure', the main goal of which is to help stakeholders target and solve the problem of information asymmetry across online platforms and right administrators that is detrimental to all parties, including consumers interested in diversity of music. We know that online music exploiters have turned data into their main asset (namely: massive, real-time data about their users, music consumption, and hence online music revenues). Considering prior efforts to solve these data asymmetries and their failures, due to participant concerns about the control of data and costs, we will provide a model agreement (and a set of guidelines) helping right-holders and licensees such as online platforms conclude music data-sharing agreements. In our view, these model agreements can help prioritise disclosure over enclosure (or secrecy) and can be directly tested by Fair Muse's industry partners during the last year of project development.

5.2.2. Music Data Dashboard

The consortium will develop a demonstrator of a Music Data Dashboard of statistical indicators on the European music sector, to serve the information needs of policymakers, music professionals and other stakeholders in this sector. This Dashboard will enable users to get a

¹⁰⁵ Ferraro, Serra and Bauer (n 44).

¹⁰⁶ Nyi Nyi Htun, Elisa Lecluse and Katrien Verbert, 'Perception of Fairness in Group Music Recommender Systems' (2021) IUI '21: 26th International Conference on Intelligent User Interfaces.

¹⁰⁷ Rishabh Mehrotra and others, 'Towards a fair marketplace: Counterfactual evaluation of the trade-off between relevance, fairness & satisfaction in recommendation systems' (2018) Proceedings of the 27th ACM International Conference on Information and Knowledge Management.

better understanding of evolutions related to digitalisation and platformisation of the European music sectors by proposing or identifying indicators and data collection methods. Moreover, the Dashboard will incorporate a link to national statistical institutes, where appropriate. In short, we will (i) review current statistical sources of data on music at EU and national levels, thus analysing statistical shortcomings in current sources, particularly regarding online music consumption and revenues; (ii) validate the data identified, the structure and the objectives of this tool during a "co-creation" policy workshop that involves policymakers; and, eventually, (iii) deliver a demonstrator for the Dashboard.

5.2.3. Fairness Score

The consortium partners will use the result of the business models analysis and of platform algorithms to set up a tool to assess music services and social media. A 'Fairness Score' can become an effective tool to evaluate how online music platforms concretely deal with the criteria and goals EU policymakers intend to foster in the digital media environment. Each criterion, in its definition and assessment, will rely on the work performed in Phase 1 and will be reflected in the White Paper's recommendations.

The Fairness Score will include the following, indicative list of criteria: (i) governance in platform/social media;¹⁰⁸ (ii) market/non-market values;¹⁰⁹ (iii) local and national music in contents online;¹¹⁰ (iv) rights for creators, including access to data regarding their works and the exploitation;¹¹¹ (v) fair and proportionate remuneration;¹¹² (vi) business model of the platform/social media;¹¹³ (vii) gender equality;¹¹⁴ (viii) small and medium-size producers regarding "superstars";¹¹⁵ (ix) promotion of diversity in the algorithm.¹¹⁶

Our Score will either be shaped as an industry-led solution or - on the grounds of data disclosure obligations that arising under EU law (cf. GDPR, DSA, DMA)¹¹⁷ - as a policy

¹⁰⁸ Based on the research conducted by the politics research hub of the Fair MusE, as elaborated in Sect. 3.1.

¹⁰⁹ *ibid.*

¹¹⁰ See the discussion in Section 3.1 above.

¹¹¹ See an overview of the relevant issues in sec. 4.2 above.

¹¹² From both legal and economic perspectives, as elaborated in Sections 5.1.1.2, 5.1.1.5, 5.1.1.6, 5.1.2.1.

¹¹³ See Sect. 5.1.2.3 above.

¹¹⁴ As laid down in the Fair MusE's Gender Action Plan. See also Sections 5.1.1.7 above.

¹¹⁵ See the discussion in sec. 4.2 concerning the impact of algorithms on the discoverability of niche or marginal repertoires.

¹¹⁶ See Sections 5.1.3 above.

¹¹⁷ Art.20(1) GDPR, Art.40 DSA, Art.6(9) DMA. In particular, the European Commission is preparing a Delegated Regulation on data access obligations of very large online platforms (VLOPs) and very large search engines (VLSEs) on the grounds of Art.40 of the DSA. To this end, the Commission launched a call for evidence for which Fair MusE's researchers submitted a publicly available response: <[26](https://ec.europa.eu/info/law/better-</p></div><div data-bbox=)

instrument contemplated in a soft law or as a proper legislative instrument. We assume that this instrument could help EU policy makers influence platform/social media's practices and conduct at various levels: legal (for instance, in terms of compliance with EU artists' rights and copyright contract law); economic (for example, as regards fair and transparent remuneration); social (promotion of cultural and gender diversity) and technical (algorithmic transparency).

5.2.4. Policy Recommendations: White Paper on Fairness in the Music Sector

Our policy recommendations will draw upon the above-mentioned research results, especially the in-depth analysis of new EU law measures aimed at promoting fairness and transparency towards music creators. On the grounds of an interdisciplinary analysis of the consequences of recent EU legislative measures, and of the related national transpositions, our Policy Recommendations will detail tools and actions to facilitate the exercise of creators' rights through adequate data infrastructures. More precisely, we will include recommendations on the main objectives of Fair MusE: (i) whether and how today's music industry can significantly improve and evolve in terms of transparency and fairness; (ii) whether and how the music sector can develop reliable, standardised and unequivocal rights ownership information, both legally and technologically to be able to remunerate individual creators in a fair and proportionate way; and (iii) how legislative or industry-led solutions can reduce or minimise risks created by the enhanced dominance of the largest online music platforms.

6. Conclusion

In this *manifesto*, we advocate a new, interdisciplinary research approach that can remedy the shortcomings of a purely "silos-like" analysis of EU cultural and industrial policies in the music sector and of their *effective* impact in today's platform- and algorithm-dominated economy. The music industry is an interesting case to apply this approach to as it has gone through radical changes in the past two decades because of the extreme fragmentation of rights, business interests and artistic prerogatives that characterise the related creative communities. This has led to significant reforms of legal and regulatory frameworks governing and shaping European music ecosystems, particularly embodied into the 2019 Directive. The 2019 Directive constitutes a "big bang" in the European history of copyright and artists' rights whose real effects are yet to be evaluated in a non-doctrinal and evidence-based way.

Approaching such changes, and in particular the multi-faceted concept of fairness requires an interdisciplinary expertise, from policy, legal, economic and computer perspective. In Fair MusE, we indeed analyse the EU as a policy maker in the music industry; we examine the legal framework regarding copyright, contract law and platform liability; we study music professionals and how value networks have evolved; we assess how algorithms influence music consumption. We involve the music industry notably via industry partners, via members of our Advisory Board and other experts representing the tech and music industries as well as the community of independent legal practitioners in several European countries. This does not go without challenges: to overcome data secrecy; to deal with opposite interests that govern strategic decisions in the music sector; and to ensure a harmonious collaboration between the

[regulation/have-your-say/initiatives/13817-Delegated-Regulation-on-data-access-provided-for-in-the-Digital-Services-Act/F3423886_en](#)>, accessed on 15 October 2023.

diverse disciplines embarked in Fair MusE. The last section describes briefly how we do it, with a quick overview of the tasks and the main expected outcomes.

One point we are especially interested in is the EU's policy responses. The 2019 Copyright Directive, with the provisions on the copyright liability of social media platforms (Art.17), the fair and proportionate remuneration of authors and performers (Art.18) and the codification of a right to transparency and access to data on the earnings generated by creative works (Art.19), has an exceptional potential to strengthen the bargaining power of individual right-holders and their respective collecting societies in digital markets. The above-mentioned policy changes can become even more effective if we consider the entry into force of other instruments embodied into EU regulations, such as the DSA and the DMA, which are designed to significantly increase the level of responsiveness, internal risk assessment and accountability of very large online platforms and gatekeepers. This new array of EU law provisions targeted at the platform economy can certainly help address some of the existential questions raised by the largest online intermediaries' ability to control consumers' access to music repertoires and, symmetrically, creators' content distribution strategies and remuneration opportunities.

We argue that a proper evaluation of these recent developments in EU law should be supported by clear evidence. Such evidence can be built only through interdisciplinary efforts by independent researchers. We know that, to be effective and desirable as a policy instrument, the multi-faceted - and somehow open-ended - notion of 'fairness' (used in key EU law provisions, and in many judgments of the CJEU in the copyright law sphere) needs to be dissected and analysed from a legal, policy, economic and technological perspective, embracing simultaneously a balanced and multi-stakeholder viewpoint. That is the main reason why we promoted the creation of a consortium like Fair MusE and intend to involve several categories of music professionals, industry and civil society representatives in the co-creation of the project's outcomes. Beyond the music-specific character of our interdisciplinary analysis, we are confident that our research results can be very useful also for other creative industries and media environments – including the news publishing sector - where data-driven exploitations and artificial intelligence have become pervasive and are inevitably changing the processes of content value creation and control, and re-shaping ecosystems.

