

JRC TECHNICAL REPORTS

Statistical, Ecosystems and Competitiveness Analysis of the Media and Content Industries:

The Music Industry

Authors: Andra Leurdijk, Ottilie Nieuwenhuis

Editor: Jean Paul Simon

2012



European Commission Joint Research Centre Institute for Prospective Technological Studies

Contact information

Address: Edificio Expo. c/ Inca Garcilaso, 3. E-41092 Seville (Spain)

E-mail: jrc-ipts-secretariat@ec.europa.eu

Tel.: +34 954488318 Fax: +34 954488300

http://ipts.jrc.ec.europa.eu http://www.jrc.ec.europa.eu

This publication is a Reference Report by the Joint Research Centre of the European Commission.

Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

Europe Direct is a service to help you find answers to your questions about the European Union Freephone number (*): $00\,800\,6\,7\,8\,9\,10\,11$

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server http://europa.eu/.

JRC69816

EUR 25277 EN

ISBN 978-92-79-22543-7(pdf)

ISSN 1831-9424(online)

doi:10.2791/796

 $Luxembourg: Publications \ Of fice \ of \ the \ European \ Union, \ 2012$

© European Union, 2012

Reproduction is authorised provided the source is acknowledged.

Printed in Spain

Preface

Media and Content Industries (MCI) carry out an array of heterogeneous economic activities, which encompass publishing (including music), sound, motion picture and video/TV production, programming, distribution and broadcasting industries, as well as diverse information services.

The common thread in these activities is that they are all conducted by establishments primarily engaged in the creation and dissemination of information and cultural products. Also, the last decade witnessed a progressive intertwining of these activities amongst themselves and with the ICT sector, which increasingly provides the means for disseminating MCI products. At the same time, there was rapid change in the way these establishments worked and their business models (production and distribution processes, key players, organisation, etc.). Last, but not least, there was a substantial increase in the overall weight of MCI in the EU economy.

While understanding and mastering the descriptive quantitative tools that we have at hand is important, it is even more essential to grasp the current dynamics in the various industries in the Media and Content sector, possibly in relation with those in the ICT sector, in order to adapt our metrics and analysis to the current and emerging transformations of these sectors.

Therefore in 2009, IPTS launched a research project on the "Statistical, ecosystems and competitiveness analysis of the Media and Content Industries". This research initially included the preparation of a statistical report, a historical report and three subsector case studies, each supported by a dataset and technical annex. In 2010, IPTS decided to complement the initial case studies (cinema, music and newspaper) with two additional subsectors (book publishing and broadcasting) in order to provide a comprehensive view of the sector. In 2010, IPTS had already released a case study of the video games industry, a fast growing segment of the sector.

This set of studies has two objectives:

1. To offer a quantitative statistical approach to the Media and Content Industries, including their extension or blurring boundaries due to: offline and online activities; innovative activities deriving from recently developed technological applications (i.e. P2P, WEB 20, social computing or other related current or emerging trends and technologies); specific sub-industries, companies or products that would not readily fit existing taxonomies.

The above dynamics were reflected in a wide-ranging revision of both taxonomies and classifications. Indeed, the definition itself of the MCI sector stems from a long standing process of standards revision guided by the OECD. This led to the profiling of the digital economy, and the conceptual identification of the MCI and ICT sectors as the two components of the Information Economy domain (OECD 2007, 2009). Similarly, the recently completed revisions of international classifications of economic activities (UNSD 2006, Eurostat 2008) led to the creation of a specific section (the highest rank in classifications) for Information and Communication activities, which includes both MCI

The report starts by introducing the technologies, their characteristics, market diffusion and barriers to take up, and their potential economic impact, before moving to an analysis of their contribution to the competitiveness of the European ICT industry. It concludes by suggesting policy options. De Prato, G., Feijóo, C., Nepelski, D., Bogdanowicz, M., Simon, J.P (2010) "Born digital/ Grown digital. Assessing the future competitiveness of the EU video games software industry", JRC Scientific and Technical Report, 24555 EN. Available online at http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=3759

and ICT services.

This represented a significant departure from tradition, in that it brought together industries, previously seen as belonging to very diverse sectors of the economy, in an attempt to better reflect current reality. During the last decade, the industrial environment related to activities such as information archiving, processing or transmission, content creation and exchange, etc. has undergone a series of changes, which make it less and less advisable to analyse the sector, or any of its industries or companies, as a autonomous and separate entity that would simply integrate new technologies for the purposes of straightforward modernisation or expansion. Borders have blurred, roles have changed, and business models have adapted: the ecosystems have evolved radically.

2. To offer an industrial and economic analysis of the Media and Content Industries, and their dynamics. The case studies investigate the past and current ecosystems of these industries, looking beyond value chains or major actors to those aspects that are relevant to the understanding of the transformations themselves: emerging challengers, past and new threats and ways of responding, new business models, major investments, major failures or successes and their causes, technological changes affecting the industry, radical innovations if any, etc.

The analysis in the cinema, music and newspaper case studies follows the framework sketched out by IBBT-SMIT and TNO (2011) in collaboration with IPTS. They consider the interplay between:

- Technological change and innovation, especially ICT and digitisation, as a major driver of industrial and economic change;
- Market developments;
- Industrial structural change, including analyses of concentration and consolidation, integration, diversification and new entries;
- The competitive position of European industry players in a European and global context;
- Impact of digitisation in different parts of the value network (production, aggregation, distribution, consumption of content), new business models, new positions in the value chain, piracy and the role of users;
- The role of policy, i.e. not a full analysis of policy impact on the subsectors, but the main policy issues and trends as important contextual factors.

In the video games, TV and book publishing industry case studies, the framework presents a slightly different pattern, but aims to achieve similar objectives through its analysis.

The video games report documented a series of core insights into the video games industry that allow us to understand the market, its industrial structure including the main actors and activities, the aspects that determine the major tensions and power relations among actors, and also the potential disruptions.

The TV case study follows the same track but explores the relationships between these changes and new TV formats. It adopts a "product" approach to the analysis of the industry, giving special consideration to how European television series, game shows and sports are being produced, distributed and viewed/consumed in the new media ecosystem.

Similarly, the book publishing report considers the redistribution of the components of the book "chain" and the shifting role of various industry players with the development of e-books.

The reports are based on a review and synthesis of the available literature and (official and unofficial) data of the MCI sector, desk research, and several workshops.² The results were reviewed by experts and at dedicated workshops.

The reports aim to offer a reliable set of data and analysis, and also to contribute significantly to the debate about the economic health and development conditions that will support the future competitiveness of the European Media and Content Industries.

Contract title: "Statistical, ecosystems and competitiveness analysis of the Media and Content industries."

Contract number: 151584-2009 A08-NL.

The contract was awarded by: Institute of Prospective Technological Studies (IPTS) of the Directorate General Joint Research Centre, European Commission.

Main contractor: TNO

Project leaders: Andra Leurdijk, Silvain de Munck.

Partners: IBBT-SMIT.

Project leaders: Peter Ballon, Sven Lindmark.

IBBT-SMIT research team: Sophie de Vinck, Nils Walravens.

IPTS MCI research team: Giuditta de Prato, Esteve Sanz, Jean Paul Simon.

The checking and editing of the text by Patricia Farrer (IPTS) is gratefully acknowledged.

First MCI workshop, IPTS Sevilla, 30-31 May, 2011: "The economics of Media and content industry (MCI). Approaches, case study, economic effect of the digital transition". Second MCI workshop, IPTS Sevilla, 27-28 October, 2011: validation workshop. All the presentations at the two MCI IPTS workshops are available at: http://is.jrc.ec.europa.eu/pages/ISG/documents/

Executive summary

The objective of this report is to offer an in-depth analysis of the major economic developments **in the music industry**. The report analyses the transformations of the industry brought about by digitization. It discusses how digitization affects content creation, distribution, aggregation and consumption of music, value networks and business models. It also looks at the competitive position of the European music publishing and recording industry in relation to these transformations, at opportunities and threats for the sector, and at policy implications.

The report focuses on music companies, and encompasses the production and distribution of recorded music, including online distribution, and the competition which music companies face from other online music providers. It also covers the organisation of live performances and the exploitation of music copyrights, though data on how these activities contribute to revenues in the sector are less systematically available. The analysis integrates data from this project's statistical report and includes a database of the major music publishing companies, plus two company case studies (EMI and Spotify).

The report is divided into six chapters. Following the introduction in Chapter 1, Chapter 2 introduces the sector and its main economic and technological features. Chapter 3 analyses the music industry's value network, identifying the transformations taking place in it and its business model as a result of the on-going digitization process. Chapter 5 identifies the main regulatory issues affecting the economic position of the EU music publishing industry. Chapter 6 concludes the report by weighing the strengths and weaknesses of the European music publishing industry against the opportunities and threats posed by digitization and the internet.

The study is based on a review and synthesis of the available literature and reports and on official (Eurostat) and unofficial (trade organisations and consultancies) data on the music publishing industry.

Economic characteristics and developments

The music sector is a two-tier market: music companies engage in the selection, publishing and marketing of albums and singles, which are then sold to consumers by (online) retailers. Like most other media and content sectors, the music industry is characterized by high upfront investments, low marginal costs and high risks.

The market structure is dominated by a small number of multinational, vertically-integrated music firms, which own and fund a diversity of labels, distribution and promotion channels, and a large number of SMEs. Up until November 2011, the global music industry was dominated by four major labels: Sony Music, the EMI Group, the Warner Music Group and the Universal Music Group, which together possessed 70% of the world market and 80% of the US market. EMI used to be the only European-based company. In November 2011, French investor Vivendi – owner of Universal Music –acquired the recorded music business of EMI and Sony bought EMI's publishing unit. The recent merger has not yet been approved by the competition authorities, but if it is, it will make Universal Music's position more dominant as it will then own three quarters of music sales worldwide. EMI's headquarters will remain in Europe, and it has been suggested that it will continue to exist under its own name.

France, the UK, Germany, Italy, Sweden and the Netherlands have the largest music publishing industries in the EU27 in terms of value added (according to Eurostat, 2007

ranking). Since 1995, value added has declined in the UK, Sweden, France (sharply), Italy and the Netherlands, but has risen in Germany. Music publishing companies derive their revenues from four major sources: performances, reproduction, synchronisation and distribution. Reproduction-based revenues have been declining. Trade organisation IFPI's figures for 19 EU countries show that sales of recorded music have dropped in all these countries, except in Poland. Sales of recorded music declined most sharply in the US. Spending on digital recorded music is slowly growing, but does not yet compensate for the losses in physical sales. Sales figures for online music providers are incomplete, which creates problems when interpreting them. Firstly, not all online music providers are included in Eurostat figures for the music industry, because, for some of them, music is not their core business (e.g. Apple with its iTunes store). Secondly, the trade organisation IFPI does not include all online music providers either. In addition, longer-term figures on how the different revenue streams have developed are not publicly available. This makes it difficult to make an overall assessment of developments in the music industry, which now also encompasses many players from outside the traditional music industry.

There is some evidence, however, that performance-based revenues have been growing.

Changes in the value chain and new business models

The Internet and digitization have undoubtedly had a major impact on the music industry. After a period of sustained increases in sales and revenues following the introduction of the CD in the 1990s, the music industry faced substantial revenue losses for subsequent years. The music industry claims that piracy of illegally shared and downloaded music from P2P networks is the main explanation for these losses. However, others argue that there are other probable explanations (Cooper, 2008; Rob & Waldfogel, 2004; TNO, 2009). For instance, the growth in CD sales had already stopped by the end of the 1990s, because most consumers had by then replaced their vinyl collections with CDs. Moreover, according to Cooper (2008), high prices for CDs suppressed consumer demand. From these alternative perspectives, the effects of piracy can be assessed in a more nuanced way. Music is now shared and consumed on a much larger scale than before and consumers benefit from this. Music sharing over the internet enables artists to get wider reputations and consequently more opportunities for record sales and merchandising and also more live performances with larger audiences. They can achieve this even without the help of music companies, which traditionally played an intermediary role. Digitization and the internet have thus disrupted the role of major music companies and their relationship with consumers.

However, to build and maintain a loyal audience online also requires investments, which not all individual artists can afford and for which they do not always possess the skills. In online services, the major record companies support the big stars who, as a result, are still the most popular though there are occasions when individual artists do succeed in suddenly becoming an online hit through YouTube or social network services. Though the internet therefore seems very fruitful as a talent-scouting resource, maintaining and developing these successes continues to require professional investments.

Audiences have changed their music consumption. They can now listen to music (downloaded to their own devices or through streaming services) on many different devices, anywhere and anytime. The use of online music services, legal and illegal, has grown immensely and many music retail shops have closed. In the new, digital environment, consumers have a much more active role in sharing, uploading, commenting and remixing music. Maintaining good relationships with their audience has become more important for music companies. Consumers have also created a new revenue stream for music companies

by uploading their favourite music video clips or remixed versions to platforms such as YouTube, which now have to pay royalties to the music companies which hold the rights to these songs.

The launch of the Apple iTunes store in 2003, for which Apple signed deals with all majors to distribute their music through its online store for a fixed price, meant a major breakthrough for the online music market. Since then, many other new online services have been launched. A promising company is the European online music provider Spotify, which also entered the US market in July 2011 and immediately became very popular. Spotify employs a subscription model. Users can find and listen to an unlimited amount of music for a monthly subscription fee, or listen for free to a limited amount of music, interrupted by commercials. Others, such as LastFM offer more radio-like services and construct playlists, based on users' preferences for certain artists or genres, with fewer options for users to select the exact song they wish to hear. LastFM is offered in some countries through a free, advertisement-supported model and in others in a subscription model. Another upcoming business model is to bundle access to music services with subscriptions to mobile internet service providers and/or mobile devices, cloud services or pay TV services.

Currently there is a wide variety of online music providers, still experimenting with different business models, which may vary by country. They also sometimes offer users a choice of models: free advertisement-based models, subscription models, or models where users pay for pieces of contents ('pay-per-transaction model: songs, albums, etc.).

Social networks are increasingly important for the marketing and sales of music. They provide users with a means to share music and recommendations, and record companies with a platform for their online streaming services. Consumers signing on to Spotify, for instance, are required to link their Spotify subscription to their Facebook account. Music has thus changed from a physical product to a service.

In response to piracy and dropping CD sales figures, music companies have slowly become more willing to sign deals with legal online music providers. They have launched online services themselves or entered joint ventures. They are also trying to increase revenues from other services and products, such as live performances and merchandising. Deals which have become more common are the '360 degree deals', in which the music company signs on artists and subsequently manages their complete portfolio, from recordings, to live performances, merchandising and the rights for online services, radio plays, use in films, games and TV series etc. etc. Concert promoters like Live Nation and AEG have also closed this type of 360 degree deal with artists. These companies thus take on business risks in exchange for more control over the artists' creative process and business. Music companies are also investing more in well-established artist brands, many of which are from the 70s, including a number who have already passed away, but whose music is still being republished in new albums, played on radio, used in films or in pop-idol contests, etc.

These developments, in which music companies are attempting to regain control over the value network in the digital environment are occurring simultaneously with developments, which, at least in theory, could offer artists more tools to run their own businesses and become more independent from music companies.

Competitiveness and single market

The music industry is a very international industry, dominated by the four majors. Of these, only EMI was, until the recent take-over of its recording and publishing branches, a fully

European company. The headquarters of the popular online service Spotify are based in Europe.

Globally, the US, Europe and Asia each hold approximately a third of worldwide music sales. The South American market is very small, and the African market even smaller. Compared to the US and Asia, digital music sales in Europe are much smaller. This may be because in Europe, the retail market is stronger, take up of broadband connections has been slower in some countries, and there have been delays in the introduction of online services due to the fragmented EU market. The live performance market in Europe is dominated by the US companies AEG and Live Nation.

An important upcoming music market is China. Until recently a market for paid music hardly existed in China as piracy prevailed. Recently however, online music services have become more popular and Chinese music services, such as the major Chinese search engine Baidu, concluded deals with all major music companies.

The majority of European record companies are SMEs focused on the local market. Albums from local artists sell best in most EU countries (local artists can also be contracted by US majors). Their market share varies, but on average it is around 50%. US music has a market share of between 30-45% and the remaining share is for albums from other, mainly European countries. Online, it is becoming easier for music service providers to sell their services across borders, as distribution costs are near to zero.

Policy and regulation

The most important legal obstacles to achieving the goal of a single European market for many media products, and for (digital) music in particular, concern copyright and licensing issues. Online music providers have to negotiate copyrights and licenses on a territory-by-territory basis. Other obstacles, which contribute to market fragmentation in the EU27, are the lack of interoperability of devices, software and DRM technologies and differences in tax (VAT) regimes.

The implementation of the Copyright Directive by Member States and subsequent other Directives meant that, in principle, copyright protection was tightened and the options for punishment for violating copyrights increased. However they have not (yet) led to an effective harmonisation of Member States' copyright laws.

A problem which particularly affects online music providers, who wish to be available in different (EU) countries, is that different rights (for copying and for making available to the public) are owned by different rights holders (authors, composers, performers, record and music publishers), and are laid down in different contracts managed by different collective management organisations. Parties often need to negotiate the terms of use of a protected work with every rights holder and in every territory. Possible solutions would be to create pan-European or multi-territory licenses, or to combine reproduction and performance rights and the licenses of the different rights holders (authors, composers, performers, sound recording companies), into one license. An instrument to achieve more transparency for music providers could be to oblige collecting societies to provide access to ownership and licence information in a repository or data base.

Some progress has been made with the adoption of a proposal for a Directive on orphan works by the European Commission in May 2011, which could make it easier to use orphan works in online media services and products.³

Other differences in legislation between Member States concern the implementation of the Copyright Directive with regard to the limitations and exceptions to reproduction rights and – importantly - the way in which Member States deal with copyright infringements.

How to treat copyrights in user-generated content is raising new questions. The European Commission Digital Agenda aims to solve some of these issues in order to realize the goal of a digital single market.

Conclusions

Speaking of the strengths and weaknesses of a European music industry also means addressing the strengths and weaknesses of the music industry in general, as the music industry is dominated by companies which operate internationally and not only in Europe. Europe also still has a very diverse music landscape in which many SMEs operate.

The sale of physical, recorded music has been declining since the late 90s, and music consumption has shifted online. These changes have affected the different phases and players in the value chain in different ways. They have disrupted the traditional business models of the legacy music companies, but have also opened up the market to many new players. The changes have brought consumers a lot of benefits, such as cheaper and more easily available digital music on different devices. For artists, the consequences have been mixed: they can now produce and distribute their music, independent of intermediaries, but they have also been affected by declining revenues from recorded music. In order to assess the changes in the music industry one would need to be able to analyse more comprehensive data in which revenue streams from all relevant sources are compared over time, including those from live performances, radio play, merchandising and use of music in games, films, TV series, commercials etc. These data are not readily available, but it is generally agreed that revenues from recorded music have dropped since the late 90s, while revenues from performances have risen.

The challenges for the industry mainly lie in how successful it will be in adapting to the digital environment. Many new business models will be experimented with, but many will also fail.

Legacy music companies are regaining some control over the new distribution and marketing channels for music. After a period in which they concentrated on fighting piracy and were reluctant to close deals with online music providers, they are increasingly signing contracts with online music providers and also have launched their own services or entered joint ventures. Consumers are getting used to paying for digital music and more recently the market showed an increase in subscription and ad-supported models, or models in which consumers receive a basic service for free and pay extra for premium packages.

The most promising players in the digital, online environment seem to be international companies, which manage to close deals with major music companies on the use of their music. Among the successful companies so far are American companies like the electronic store Amazon, which also offers a streaming service, Apple with its iTunes store and Spotify with its advertisement-supported and subscription models. Opportunities also lie in partnering

_

³ An orphan work is a copyrighted work of which the owner cannot be identified and located by someone who wishes to make use of the work in a manner that requires permission of the copyright owner.

with social networks like Facebook. At the same time, these opportunities point to some challenges for the music industry, and possibly, on another level, for policy makers. Firstly, through their links with social networks such as Facebook, music service providers also become implicated in the privacy policies of these services, which have recently faced severe criticism. Secondly, many of the major new players come from outside the music industry and are thus less likely to reinvest revenues in original music production. An important challenge for the industry thus lies in developing sustainable business models which are beneficial for businesses, artists and consumers alike. A comprehensive assessment is required to analyse longer-term developments, in which these perspectives are also included.

Table of Contents

Prefac	ce	1
Execu	tive summary	5
List of	f figures	12
List of	f tables	12
1.	Introduction	15
1.1	Context and objective	15
1.2	Methods	15
1.3	Outline of the report	18
2.	Music industry	19
2.1	Introduction	19
2.2	Technological innovations	19
2.3	General economic characteristics	21
2.4	Market structure	29
2.5	Market developments	
2.6	Music consumption	
2.7	Online music services	
2.8	Conclusions	
3.	Transition to digital and online music	55
3.1	Introduction	
3.2	From value chain to value network in the music industry	
3.3	Impact of digitisation on business and revenue models	
3.4	Responses from the legacy music industry	
3.5	Conclusions	
4.	Competitiveness of the European music industry	65
4.1	Introduction	
4.2	Turnover and sales	66
4.3	EU27 internal and external trade in music	68
4.4	Conclusions	
5.	Policy and regulatory developments	73
5.1	Introduction	73
5.2	Copyright issues	73
5.3	Multi-territory licensing	75
5.4	DRM and interoperability	
5.5	Copyright infringement	
5.6	User-generated content	
5.7	VAT and tax issues	
5.8	Conclusions	80
6.	Conclusions	81
6.1	Strengths and weaknesses	81
6.2	Opportunities and challenges	
Refere	ences	87
Annex	A: Company Case Study - Spotify	93
	R: Company Case Study - EMI	

List of figures

Figure 1	Actors and activities in the music industry	22
Figure 2	Cost base of music publishing, determined by purchasing and	
	supply chain management decisions`	25
Figure 3	Revenue flows from consumer to source	27
Figure 4	Development of employment and number of firms between 1995 and 2007	32
Figure 5	Share of EU Member States in the total value added of the publishing industry	
	in the EU-27 in 2007	34
Figure 6	Six largest EU Member States in terms of share in total EU value added in	
	music publishing industry, period 1995-2007	34
Figure 7	Development in recorded music sales (2006-2010) for the separate markets	36
Figure 8	Share of markets in the total recorded music sales (2010)	36
Figure 9	Market decline in record sales trade value between 2006-2010 (%)	37
Figure 10	Development in global consumer sales for physical and digital recorded music (2005-2010)	38
Figure 11	Decline in physical sales of record music 2006-2010 (in million US dollars) for	
	eight largest markets of Europe	39
Figure 12	Growth in digital sales of record music 2006-2010 (in US dollars) for	
	eight largest music markets of Europe.	39
Figure 13	Decline in physical sales of record music and growth in digital sales of	
	recorded music 2006-2010 (in US dollars) for eight largest music markets of Europe .	40
Figure 14	Change in sales volume of music products between 2006 and 2010	
	(in millions of units)	41
Figure 15	Growth in music performance royalties 2006-2010 (in million US dollars) for	
-	eight largest music markets of Europe	43
Figure 16	Change in music industry revenues, 2009-2010	
Figure 17	Digital consumer activity (2010)	
Figure 18	Traditional value chain music industry	
Figure 19	New value chain of the music industry	
Figure 20	Growth in live music industry in the US (2003-2006) (in US million dollars)	
Figure 21	Share of markets in the total recorded music sales (2010)	
Figure 22	Physical and digital music sales around the world in 2010 (in million euros)	
Figure 23	Origin of European million selling albums (% of total), 2002-2010	
Figure 24	Number of free subscribers for Spotify's streaming service in July and Augusts 2011	
J	(worldwide)	94
List of	tables	
Table 1	Eurostat definition of sound recording and music publishing	16
Table 2	The music industry as defined by the British government	
Table 3	The big four record companies	
Table 4	Some of the main independent record companies	
Table 5	Number of employees, number of firms and annual average growth rate for	
	the EU-27 music publishing industry in 1995-2007	32
Table 6	Value added, share in overall economy and annual average growth rate for	
	the EU-27 music publishing industry (1995-2007), in million euro	33

Table 7	Six EU Member States with largest share in the total value added of the music publishing industry and national growth 1995-2007	35
Table 8	Compensation of decreases in physical sales by digital sales, 2006-2010 (in million US dollars)	
Table 9	Online music services on the European market	
Table 10	Top smartphone suppliers in Europe (UK, France, Germany, Spain and Italy) among	
	smartphone subscribers (13+), 2009-2010	52
Table 11	Business models for online music	
Table 12	Origin of repertoire (2010)	
Table 13	Trade balance EU27 1995-2007	
Table 14	External trade in CDs for each EU country, 2006 (x 1.000 euro)	69
Table 15	Main strengths, weaknesses, opportunities and threats of	
	the European music industry	84
Table 16:	Type and price of subscription models for Spotify	
Table 17:	Income for Spotify Limited for the year to 31 December 2009 and 2010	
Table 18:	Prices in Spotify's music store	
Table 19:	Key economic data for EMI	

1. Introduction

1.1 Context and objective

In the past ten to fifteen years, media and content markets have changed significantly as a result of digitization and the growth of the internet. These developments have led to growth in some subsectors of the media and content industries, but decline in others. Most importantly they have altered existing value chains and disrupted traditional business models. In this report a study will be presented of how these changes have affected the music industry, as one of the subsectors of the media and content industries. Four other studies - all part of the same project on the media and content industries - commissioned by IPTS, will deal with the film, TV, newspaper and book publishing industries.

The underlying hypothesis of this and the other sub sector studies is that digitization and the internet have had a profound effect on the media and content industries and might consequently also affect their competitiveness, in terms of the health and growth potential of a sector and/or its potential to have its products distributed and sold abroad. This is of particular interest in the context of the European Commission's goal to strengthen the EU single market, in order to make Europe more competitive.

The three leading questions in the study will therefore be:

- 1. What are **the main economic** developments in the music sector?
- 2. How have digitization and the internet affected **the value network** in the music sector?
- 3. How have the digitization and the internet affected **the competitiveness** of the European music sector?

1.2 Methods

The analysis in this report follows the framework sketched by IBBT-SMIT and TNO (2011) in collaboration with IPTS. This means that it will consider the interplay between:

- Technological change and innovation, especially ICT and digitisation, as a major driver of industrial and economic change;
- Market developments;
- Industrial structural change, including analyses of concentration and consolidation, integration, diversification and new entries;
- The competitive position of European industry players in a European and global context;
- Impact of digitisation in different parts of the value network (production, aggregation, distribution, consumption of content), new business models, new positions in the value chain, piracy and the role of users;
- The role of policy, i.e. not a full analysis of policy impact on the subsectors, but the main policy issues and trends as important contextual factors.

The report is based on a review and synthesis of the available literature and (official and unofficial) data on the music industry. The study starts with a compact sketch of key statistical data on the developments in number of firms, number of employees and value added between 1995 and 2007, based on Eurostat data (also published in the Statistical Report of the MCI study, TNO, 2011).

The music publishing industry is the market segment that falls under 'publishing of music' in the Eurostat databases (category 2213 in ISIC rev 3.1 or 5920 in ISIC rev 4). Note that this

category is labelled 'music publishing' in ISIC rev 3.1 and 'sound recording and music publishing' in ISIC rev 4. The category includes the following activities (see Table 1):

Table 1: Eurostat definition of sound recording and music publishing

Sound recording	Music publishing	Related activities
 Production of original (sound) master recordings (tapes, CDs) Sound recording services activities in a studio or elsewhere Production of taped (i.e. non-live) radio programming, audio for film, television etc. 	 Acquiring and registering copyrights for musical compositions Promoting, authorizing and using these compositions in recordings, radio, television, motion pictures, live performances, print and other media. Distributing sound recordings to wholesalers, retailers or directly to the public* 	 Publishing of music and sheet books Not included: Reproduction from master copies of music or other sound recordings, see 1820 wholesale of recorded audio tapes and disks, see 4649

^{*}Units engaged in these activities may own the copyright or act as administrator of the music copyrights on behalf of the copyright owners.

This Eurostat category is narrower than definitions of the music industry which are commonly used in industry publications (e.g. IFPI), policy documents (e.g. Department of Culture, Media and Sport, 2001) and academic literature (e.g. Hesmondhalgh, 2007; Engström and Hallencreutz, 2003; Wikström, 2010). According to Hesmondhalgh (2007), the music industry is constituted of three parts: recording, publishing and live performance. Of these three live performances are not included in the Eurostat category 'sound recording and music publishing'.

Others also include a number of related activities such as music photography in their description of the music industry. The UK government department on culture, media and sports (DCMS, 1998) for instance distinguishes between core, supporting and related activities (see Table 2).

Table 2: The music industry as defined by the British government

Core activities	Supporting Activities	Related Activities
 Production, distribution and retailing of sound recordings Administration of copyright in composition and recordings Live performance (non-classical) Management, representation and promotion Song writing and composition 	 Music press Multimedia content Digital media Retailing and distribution of digital via internet Music for computer games Art and creative studios Production, distribution and retailing of printed music Production, retailing and distribution of musical instruments Jingle production Photography Education and training 	 Internet/e-commerce Television and radio Film and video Advertising Performance arts Interactive leisure software Software and computer services

Source: DCMS, 1998.

Of these, only the core activities and supporting activities overlap partly with the Eurostat definition. But again and unlike Eurostat, the core activities also include live performance.

This report uses Eurostat data to sketch some developments in the music industry, but he Eurostat figures reveal only part of the story. The Eurostat statistics categorise companies by their core activities, so music publishing activities that take place in companies, which do not have music publishing as their core business are not visible in the statistics. This would be the case for instance for music publishing or distribution activities run by ICT companies such as Apple (iTunes), as these will be listed elsewhere, under ICT or software publishing. These omissions could lead to an underestimation of the size of the music publishing industry.

On the other hand, the Eurostat statistics could also lead to an overestimation of the size of the sector, as the non music publishing activities of companies which have music publishing as their core activity are also included in the figures. It is therefore hard to asses to what extent the Eurostat data provide an accurate picture of what is going on in the music publishing industry.

Online music publishing services produced by traditional music publishers are included in the official Eurostat statistics, but are not separately identifiable. From the Eurostat statistics it is therefore not possible to determine for instance which share of the revenues or employees active in the sector could be attributed to online music publishing and which share to physical music publishing.

A final shortcoming in the Eurostat data is that they are always some years behind. This means that they might not yet reveal the extent of the changes currently taking place in the music publishing sector as a result of digitisation and the internet.

Eurostat data are therefore complemented with data from industry associations (The International Federation of the Phonographic Industry (IFPI RIN, 2011) and consultancy reports such as the Global Entertainment and Media Outlook by PWC (PwC and Wilkofsky Gruen Associates, 2010; PwC, 2011). These sources include several indicators for size and growth such as physical and digital sales, volume and royalties. They also provide some insight in the shift from off- to online revenues. However; the data on revenues from industry and consultancy reports can not be easily compared with Eurostat data on value added, as there are too many differences and ambiguities in the adopted definitions, categorizations and demarcations. Finally, some more qualitative analyses from consultancy reports and academic publications are used to better grasp the underlying market dynamics.

In assessing the EU's competitiveness in Chapter 4, music publishing in the EU will be compared to music publishing in the US and Asia. Also some figures on intra- and extra EU27 trade in music will be discussed. However, the international developments in the music sector are not very well documented. Recent KEA, IFPI and PWC Outlook reports only provide some scattered, incomplete data.

To illustrate how the music industry has responded to changes resulting from digitisation and the internet and how the changes have affected music companies' business and strategies, two company case studies are included. The first company case study focuses on subscription service Spotify, the second on music label EMI. Spotify is one of the new music companies entering the market. The firm has been gaining market share in Europe and recently got a foothold in the American market, thereby competing with Apple and other streaming services both in Europe and the United States. Although Spotify seems to offer a good alternative to illegal downloading, the company struggles to get full cooperation and confidence from the music labels. The European based record company EMI was chosen as an illustration of how

a traditional music firm responds to market developments. As this case study will show, due to digitization and the emergence of new players in the value chain, EMI is forced to change its strategy and business models and cooperate with new players and competitors such as Spotify and Apple iTunes.

1.3 Outline of the report

Chapter 2 starts with a brief overview of the major technological innovations in the past decades, focussing on the impact of digitization on the production and distribution process in the music publishing sector. Subsequently the general economic characteristics, market structure and developments in the music publishing sector are described. In Chapter 3 the recent changes in the value chain and business models of the music publishing sector are discussed. Chapter 4 attempts to answer how internet and digitisation have affected the competitiveness of the European music publishing sector. Chapter 5 provides a brief overview of the main policy issues concerning the music sector. Chapter 6 combines the findings of the previous chapters to identify the main strengths, weaknesses, opportunities and threats for the music publishing sector in the EU.

Annex B and Appendix C contain the two company case studies. Data from the company case studies will be used throughout the report as illustrations of current developments in music companies' strategies and business models.

2. Music industry

2.1 Introduction

This chapter starts with an overview of the main technological innovations which affected the music industry (Section 2.2). This is followed in Section 2.3 by a sketch of the main economic characteristics and actors in the sector and an analysis of the market structure in Section 2.4 including some indications on costs and revenues and the level of concentration in the market. In Sections 2.5 to 2.7, the main market developments of the past two decades are described. Section 8 ends the chapter with some main conclusions.

2.2 Technological innovations

For centuries music used to be performed live by folk musicians and travelling troubadours or under patronage and supported by the aristocracy and churches. During the nineteenth century modern, industrial work processes and technologies began to shape the music market and music grew from a live performance practice into an industry. The music industry began as an industry of publishers who contracted composers and lyricists to produce songs which could be performed at concerts, vaudevilles, opera houses and music halls and whose sheet music could be sold to private persons to be played at home. This industry was transformed thoroughly when by the end of the nineteenth century new recording techniques and the gramophone were invented and introduced to the market by Edison, Columbia and Victor (using Emile Berliner's lateral groove disc technology). The music industry's core product changed from printed sheet music to shellac discs. First these were mainly used to promote the sale of gramophones but gradually the manufacturing, recording and promotion of music itself became the industry's core product. The role of publishers changed into administering composers' and lyricists' copyrights and collecting royalties from the sales of records and other kinds of music licensing (Wikström, 2010).

During the 30s and 40s, through bankruptcies, mergers and acquisitions three firms came to dominate the international music industry; RCA/Victor, CBS records and EMI, of which CBS (Sony) and EMI are still at the core of today's major music firms. The "record industry" eventually replaced the sheet music publishers as the industry's largest force.

After the introduction of commercial radio in 1920, the annual revenues for record music immediately declined from 106 million to 6 million US dollar during the Great Depression in 1933. The introduction of the radio – offering better sound quality and delivering live music – initially lessened the appeal of records. To avoid bankruptcy, major record labels started to merge and major radio networks acquired their first record divisions (Garofalo, 1999).

In the 1940s, a number of further technological developments entered the music industry. Among them were the magnetic tape, the band-recorder and the transistor. The compact and easily transportable transistor made portable radio possible. The LP, a product that could be shipped faster and cheaper, became the industry standard for albums.

During the 1950s and 1960s, recorded music became a major pillar for the radio industry. This development grew out of the broad introduction of television in the 1940s and 1950s, which led to a decline of radio listeners and advertisers. Because of decreasing advertising incomes, radio stations started to search for cheaper forms of programming. Recorded music turned out to be a less expensive alternative to live-entertainment and studio orchestras.

_

Edison invented the cylinder phonograph in 1877. Victor introduced the Victrola, the first successful mass market phonograph in 1906.

Record companies started to supply free copies of new releases in the hope this would turn the songs into hits, making recorded music even more inexpensive and more attractive to radio stations. Finally recorded music became the basis of most radio programming (Garofalo, 1999). They thereby gained a role as music's main promotion channel. Only during the 1990s was this model challenged by the introduction of the internet.

The 1960s marked a period of commercial expansion and corporate consolidation of the music industry. It became clear that manufacturing and distribution were the most profitable processes. Record companies started signing contracts with artists and making label deals, entered into joint ventures with other record companies or contracted other recording companies for distribution. Rock and pop music emerged and some independent labels became (sometimes temporarily) successful by recording this new music. The 60s also showed increasing leisure time and the rise of youth subcultures in which music consumption, both live concerts and individual consumption of recorded music at home, played a major role. Combined with rising wealth and expenditures by households on consumer electronics such as portable radios, record and cassette players, and on leisure products, this contributed to the growth of the music industry.

Companies also started to merge with other companies in the value chain, with competitors, and electronics-related companies, turning the music market into an increasingly global market. The 'Big Five' came to dominate the music industry in the 1980s (Warner Communications, CBS, EMI, PolyGram and Decca). During the same period, the exploitation of rights became an increasingly important activity of record companies (Garofalo, 1999).

Cassettes became the preferred music carrier in the mid-eighties. These cassettes, which were portable and recordable, were used for production, duplication and dissemination. Later cassettes were also used in the Sony Walkman, a device introduced in 1979, which enabled people to carry music with them and listen to music in any place through light-weight earphones. The techniques that were used to prevent copying of vinyl onto tape failed and the introduction of twin cassette recorders made copyright infringement even easier (Cammaerts & Bingchun, 2011). According to the music industry, home taping was 'killing the music industry' (Cammaerts & Bingchun, 2011). The possibility of home taping led to decline in industry revenues of LPs. Industry association IFPI related the decline in sales to the rising sales of blank tape and cassette tape recorders, although according to others (Garofalo, 1999; Cooper, 2008) there was little hard evidence to support that claim.

The CD was introduced in the 1980s, simultaneously by Philips and Sony. Sound quality, resistant to wear and ease of use made the CD superior to the LP. Playing a CD on a home stereo device was much easier than playing a cassette or LP (Nguyen-Khac, 2003). At first, market penetration was slow because of the extra expenses which consumers had to make to buy new hardware, i.e. (portable) CD players. But by 1988, the new listening experience of digital music on CD, made CD sales level the sales of LPs. The introduction of the CD opened up record companies' back catalogues, creating a new revenue stream for the major labels. Consumers who owned older recordings on LPs replaced their record collection by CDs (Garofalo, 1999; Nguyen-Khac, 2003). The US music market grew with roughly 60% between 1990 and 1995 (Nguyen-Khac, 2003). The CD, which was first perceived as a threat by the industry, thus started a very profitable period for the music publishing industry.

The next technological innovation, which affected the music industry, was the creation of the MP3 compression technology by Fraunhofer Institute (Erlangen, Germany) in 1989. The introduction of MP3 and increasing downloading speed due to better internet connections caused a major upheaval in the music industry, which is still ongoing and might be more

fundamental than previous disruptions caused by the introduction of new technologies (especially because MP3 as a standard for digital music distribution and reproduction has made (unauthorized) mass dissemination of music possible).

The introduction of the portable MP3 player in 1998 made it possible to take music outside the home without carrying CDs or tapes. By 1999, 846 million CDs were sold in one year, but 17 million MP3 files were downloaded every day (Garofalo, 1999). The PC became a new music hub, used as a music storage and listening centre with programs like RealPlayer, Windows Media Player and iTunes (Forrester, 2008).

The breakthrough of broadband internet and flat fee subscription models enabled fast and large scale digital distribution and dissemination of music. The emergence of smart phones further enhances this process. Smart phones are becoming more and more like portable computers, with new possibilities to listen to music and a new window of revenue opportunities for the music industry. The adoption of smart phones is growing and will be further enhanced by the decreasing prices of these devices, activating also less affluent consumers to buy a smart phone (IFPI RIN, 2011).

Major changes in the popular music followed on technological developments that made it possible to disseminate music on a larger scale or with better sound quality to consumers: sheet music, phonographs and jukeboxes followed by gramophones, recordings on LP, tape, CD and MP3. Digitization entered the music industry in the 70s when digital technologies were introduced for producing and recording music, in the 80s with the introduction of the compact disc these technologies extended to the field of distribution. In the 90s and 2000s internet technologies gained a major impact, by supporting all activities in the value chain, from talent scouting through production promotion, distribution and consumption.

Many transitions in the music industry have followed on the introduction of new technologies. However developments in the music industry are not determined by technological innovations alone. They have always been the result of the interplay between technological innovations, the actions and strategies of music firms, consumer behaviour and the wider social, cultural, economic and political context.

2.3 General economic characteristics

2.3.1 Main actors in the music industry

Figure 1 presents an overview of the main actors in the music industry. In the figure a distinction is made between the writing of songs (or music publishing), the live performance of music and the recording of music as the three main types of products and revenue generating activities. These activities can be performed by the same persons or companies. For instance, song writers are often also live musicians and record companies often own music publishers. The figure provides an overview of the main actors and activities, but is by no means complete, as many other actors are related to the music sector. Think for instance of the (independent) studio-owners, the manufacturers of studio equipment and recording software, or the photographers and designers involved in the production of promotion material for music recordings and concerts. The focus of this report is however on the industry's core activities: music publishing and music recording and their underlying value chain and business models.

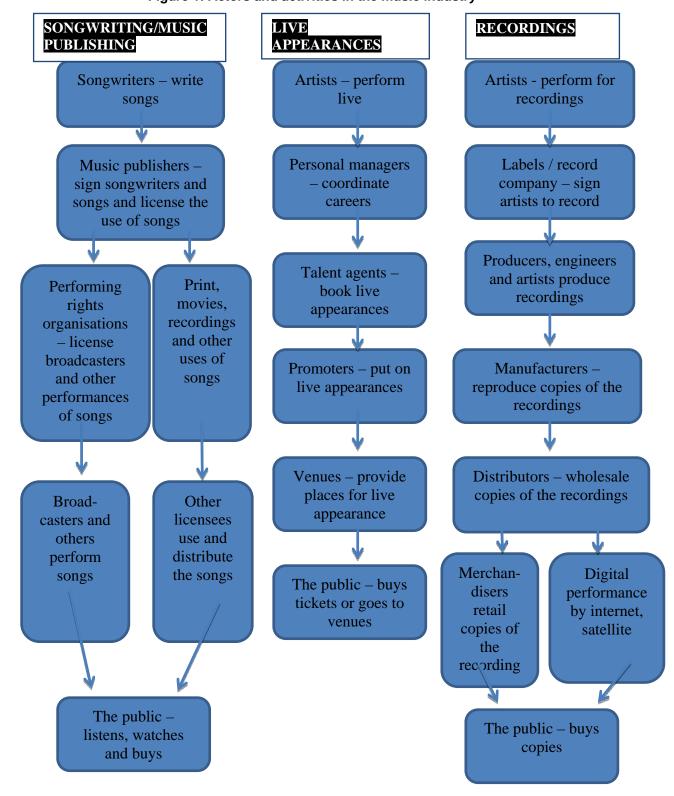


Figure 1: Actors and activities in the music industry

Source: Hull, Hutchinson & Strasser, 2011, p.44, with some minor adaptations.

The production of music starts with the creation of music by composers, song writers, musicians and sound recorders. For a long time music could only be made public and shared during live performances. Only with the introduction of mechanical reproduction techniques did it become possible for composers and song writers to copy their sheet music and have it distributed on a larger scale to the public by music publishers. In the nineteenth and early twentieth century the music industry was dominated by the publishers of sheet music. When mechanical recordings of music became possible their dominant position was gradually taken over by record companies.

Music publishers are engaged by composers and song writers to license their works for various purposes; recordings, live performances, music used in clubs and shops on radio, TV, in films, games, video's and in sheet music, etc.

Record companies manage the brands and trademarks (or record labels) associated with the marketing of music recordings and music videos. They usually coordinate the production, manufacture, distribution, marketing, promotion and enforcement of copyright protection of sound recordings and music videos. Their A&R (artist & repertoire) agents scout talent. They develop new artists and maintain contracts with recording artists and their managers. Record companies own the copyrights of recordings. Often they pay an advance to the artist in order to enable the artist to produce a recording. They will also pay for the distribution, marketing and promotion. The artist will receive a share of the revenues from music sales (CDs or digital songs), royalties (for the use of their songs and compositions in the recordings, called mechanical royalties) and other revenues (for instance merchandising).

Record companies have several channels to promote and sell music. They can distribute music on physical carriers like CDs via distributors through the traditional channels of music stores and chain stores. They can also distribute music through radio and television broadcasts, films, live performances, video platforms and online stores or music services. Since the 1950s radio has played a major role in the dissemination and popularization of music, especially when after the introduction of television radio turned to music as a cheap way to fill their programmes and attract listeners and advertisers. The 80s saw the emergence of many radio stations specialised in certain music genres (pop, rock, top40, golden hits, local music etc.), with many relying on automated playlists. Radio airplay is still almost a prerequisite for successful record sales, but only few albums released are able to reach radio's playlists.

Record companies are increasingly entering into deals with music service providers on the internet and on mobile platforms. Many new music services and distributors have entered the market, such as file sharing sites, online stores for digital or physical music sales, user-created content and video sharing sites such as YouTube. Some record companies now also own online services or have entered joint ventures or concluded deals with online service providers (see Section 3.4.2). The music sector has thus drastically expanded.

Traditionally artists earned their income from live music performances, but in addition, from the beginning of the 20th century, income from recordings came to play a major role. Like the song writers musicians are largely dependent on music publishers and record companies for access to the public as well as for sufficient funding to be able to create new music and songs. In exchange for music rights, publishers make the necessary investments and pay royalties when return on investment is made. Because of their key position, publishers and record companies used to function as gatekeepers: they decided which music was published and distributed and which was not. This made them very powerful players in the music industry. Digitization of the music industry led to the emergence of easy accessible distribution

channels for content creators as well as for consumers. Content creators also have the ability to put their music online directly, on personal websites, blogs or video platforms, without having to rely on the intermediary role of music publishers. They can use these platforms to directly get in touch with their public or to bring their music under the attention of the publishers and their labels. Artists can in principle also directly negotiate with retailers about the distribution of their newest album. This line is dashed, because it is a possibility which only works for established artists with sales guarantees, and therefore not used very often.

Record companies have lost their key position as gatekeeper and dominant supplier and now have to compete with new players on the market, such as concert promoters and hardware manufacturers. Still, because of their experience, budget and network, the large labels remain very powerful on the music market, although less powerful then one or two decades ago.

Copyright collecting societies or performing rights organisations are another category of important players in the music market. Copyrights are usually managed collectively and several collecting societies have been established at national levels to administer music rights on behalf of their members. Copyright collecting societies represent groups of copyright and related rights owners, such as, music publishers, composers, musicians and performers. They act on behalf of their members, and issue copyright licenses to users authorising the use of the works of their members. They negotiate the royalty rates and other license terms and collect royalty payments, which are subsequently distributed to relevant members. For the music industry copyright collecting societies can be divided into copyright organisations for mechanical copyright (for recording and reproducing copies of songs/compositions), copyright organisations for making public use of musical works, and copyright organisations for neighbouring rights.⁵ Europe has the most developed system of collective rights administration in the world (KEA, 2006).

A main segment in the music industry is the live performance segment. The most important players in the live music segment are the performer, the booking agent, the promoter and the venue operator. Booking agents work for performers to arrange performances, promoters market events, sell tickets and make arrangements with local venue operators.

The focus in this sector study is on the transformations in the sector resulting from digitisation and the internet. The focus is on the sector level, i.e. on how technical and economic developments affect music publishers and record companies and less on the individual artists. Data on the sector's live performance branch are scarce. Another underdeveloped research area is that of the independent record labels. Most literature and data focus on the major music companies or on general developments in the music markets, but it would be interesting to see whether and how independents have managed better or worse than the majors in responding to new market circumstances and digitization. In the analysis we look both at the ways in which traditional music publishers have responded to the transformations as well as at the strategies and business models developed by new music publishers or service providers.

121 countries. GESAC is the international organization for neighbouring rights and represents the 34 largest organisations in the EU, Norway and Switzerland.

⁵ Countries with well developed music markets all have national copyright collecting organisations. In the US the main performing rights organisations are ASCAP, BMI and SESAC, in the UK PRS, in Germany GEMA etc. The main US agency for mechanical licensing is the Harry Fox Agency. BIEM is the international organization for mechanical copyrights and represents 52 copyright organisations in 56 countries. CISAC is the international organization for making public use of music and represents 232 copyright organisations in

2.3.2 Economic characteristics

The music sector is characterized by a two-tier market where music companies (majors or independents) engage in the selection, publishing and marketing of records and singles, which are then sold by (increasingly online) retailers (IPTS, 2008). Like the film industry, the music industry is hit driven and has an uncertain demand. Reliance on the star system and publishing music in genres, of which the target audience is more or less known, are ways to predict a certain amount of success and to reduce risks.

The dominant business model of the music industry used to be the model in which music companies provide authors (or artists) the resources necessary for the creation of music in exchange for the right to exploit their copyrights. Wikström (2010, p. 53) therefore describes the basic activity of the record company as the production of intellectual properties by recording artists' studio or live performances, which it then markets and distributes to consumers. This model has led to the emergence of large mass-media conglomerates such as Universal Music Group, Sony Music Entertainment, EMI and Warner Music, which own and fund a diversity of labels, distribution and promotion channels (Nguyen-Khac, 2003).

Unlike many other media and content sectors, the music sector traditionally did not rely on advertising. Its main sources of income were revenues from sales and royalties. For related industries, such as commercial music radio channels and, increasingly, online music services, advertising however is an important source of revenues, which feeds back into the music industry.

Costs

Figure 2 shows the cost base of the music publishing and recording industry and the share of different types of costs in the total costs as estimated by McKinsey (in: (Aris & Bughin, 2009).

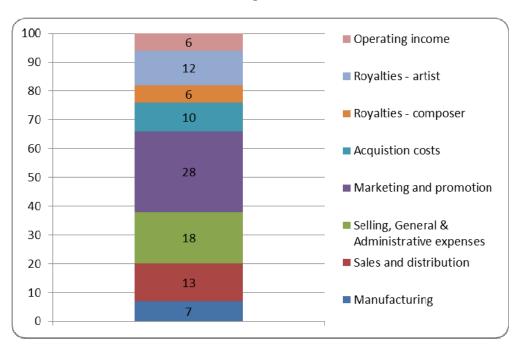


Figure 2: Cost base of music publishing, determined by purchasing and supply chain management decisions

Source: Aris & Bughin, 2009, based on McKinsey analysis.

According to these estimates the proportion of costs for the supply chain (including manufacturing, sales and distribution and selling, general and administrative expenses) amounts to 38% of the total costs. Marketing and promotion also have a large share in the total costs: 28%. Royalties for the composer and the artist are compared to these costs significantly smaller: 6 and 12% respectively. In this figure the costs for music publishing and for music recording are added up. In the following section, the revenues for the distinct revenue streams (music publishing, music recording and live performance) are treated separately.

Revenues

Figure 3 shows the main revenue streams in each of the three main businesses within the music industry.

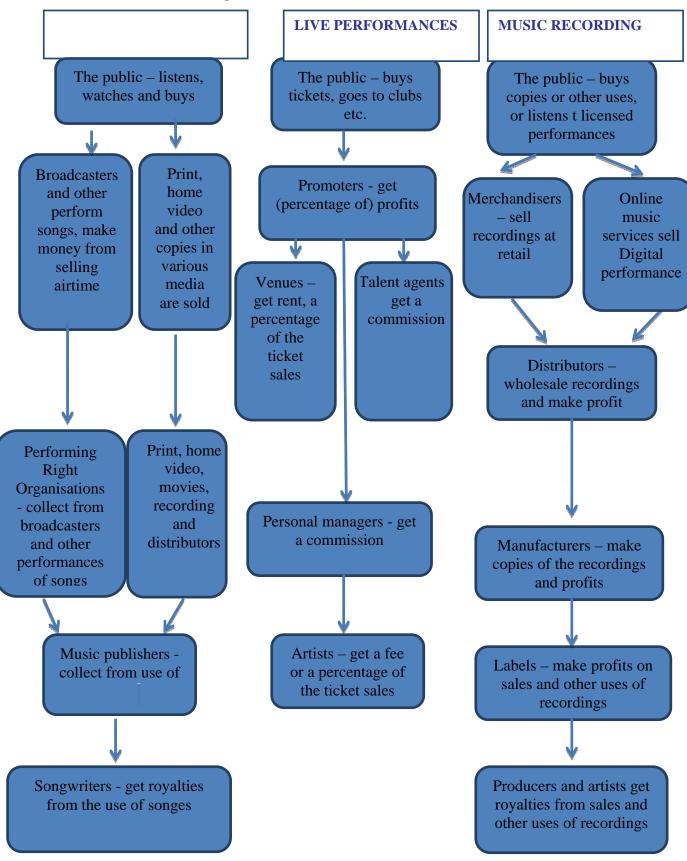


Figure 3: Revenue flows from consumer to source

Source: Hull, Hutchinson & Strasser, 2011, p. 47.

From all three revenue streams, revenues from music recording are the largest, though shrinking stream. Music publishing was estimated to be about 20% of the overall revenues (Hull, Hutchinson, & Strasser, 2011) but is more profitable, as it requires less upfront investments than music recording. Revenues from music publishing have been rising in recent years.

Music publishers, in the left stream in Figure 3 derive their revenues from four major sources: performances, reproduction, synchronisation and distribution (KEA, 2006). Performance based revenues are revenues collected by music publishers for the public performance of copyrighted music, including radio broadcasts, background music in clubs, bars, shops etc. and live performances (PwC and Wilkofsky Gruen Associates, 2010). Reproduction based revenues - or revenues based on mechanical licenses - are derived from the reproduction and distribution of music to the public by record companies in a variety of formats and through a variety of carriers (CDs. MP3s, DVDs). Record companies pay mechanical royalties for the use of copyrighted music to music publishers, who in turn pay the songwriters and/or composers, who have often licenced their work to music publishers. Synchronisation royalties are derived from the use of musical compositions in an audio-visual work (for example on television programs, films, commercials, games and music video's). Distribution-based revenues are generated through the sale of printed sheet music. Performance- and reproduction based revenues represent the bulk of revenues generated by the music publishing industry. An estimate 30% comes from the use in recordings (mechanical royalties), followed by the revenues paid over music played in film, television, games and other audiovisual media (synchronisations rights, 18%), TV broadcasts (18%), radio broadcasts (16%), sheet music (10%) and from royalties paid for the live performance of songs (7%) (Hull, Hutchinson, & Strasser, 2011).

Record companies, in the right stream in Figure 3 make money from selling copies of recorded music, both from new music as well as from acquired already existing masters. In so called 360 degree deals they also contribute to and share in any profits made from publishing, live performances, merchandising an potentially other revenue streams.

The third stream in Figure 3 is the revenue stream related to live performances. For most artists live performances are their main source of income, because only few artists achieve success in the record music industry. According to Wikström (2010) artists receive up to 85% of the gross revenues from a live music performance, but only 10% from recorded music revenues. Hull, Hutchinson and Strasser (2011) contend that artist's share in recorded music revenues varies between 14 and 20% of the wholesale price, depending on the stature and popularity of the artist and the kind of deal made with the record company. Of these royalties any advances and some marketing costs are often recouped, if and when the royalties are earned. The percentage includes the royalties that have to be paid to the producer (3-5%) and any others who get royalties from the recording.

Booking agents work for performers to arrange performances, promoters market events, sell tickets and make arrangements with local venue operators. In this segment Live Nation is the major company active in Europe and the US. It is estimated to have a 50% market share, followed at some distance by Anschutz Entertainment Group (AEG). Beyond those two multinationals the market is very fragmented and consists mainly of national or regional players.

2.4 Market structure

Garofalo (1999) divides the history of the music industry into three phases. First music publishing houses occupied the power centre of the industry, when sheet music was the primary vehicle for disseminating popular music. In the second phase record companies ascended to power as recorded music achieved dominance. The third phase is characterised by transnational entertainment corporations, which promote music as an ever-expanding series of revenue streams, based on the exploitation of copyrights and no longer tied to a particular sound carrier (Garofalo, 1999). The current music market is situated in the third stage. Another way to temporize the music industry's history is by looking at the major changes in the way music is performed, stored and distributed. In the days of the gramophone and before that the main business model was based on the performance of music. This changed into a model in which the sale of a product, a physical music carrier like the vinyl record, cassette tape or CD, sold in physical retail stores, was the main business model. Now, this model is being transformed into a service based business model, in which digital music is available everywhere at any time via ubiquitous music service providers (Vogel, 2011).

The three main businesses within the music industry, music publishing, life performance and music recording are interconnected in many ways. Music publishers for instance gain their largest income shares from royalties paid on recorded music and public performances and live performances play an important role in the promotion of music recordings.

2.4.1 Concentration

Similar to the publishing and film industry, the music industry is characterized by the dominance of a small number of very large, multinational music firms (majors) and a large number of medium and small enterprises (independent labels or indies). The four companies with the largest market share in music publishing are also the largest music recording companies. In terms of revenues, numbers of singles published and number of hit singles the four majors occupy the largest market share, though independent labels account for the majority of the overall employment in the industry. Most of them are SMEs, some are micro enterprises or self-employed people (KEA, 2006).

The major music firms all have their headquarters in the US or the UK, but have local offices around the world. In the 20th century they controlled the largest part of the production, recording, distribution and marketing activities in the music industry. Originally, acquiring master recordings, promoting, distributing and selling physical or digital copies of those recordings to consumers were their main functions. Since the market for physical copies has declined, exploiting intellectual property rights by offering licenses to use digital copies of songs can be considered as their main business model. Like other media and content industries, the music industry used to be, and still is to some extent, characterized by a high degree of vertical integration. Production and printing facilities and distribution networks are owned or controlled by major media companies (Aris & Bughin, 2009), although in the digital age, some of these activities are outsourced.

From 1988 till 1998, the music industry was dominated by the 'Big Six': Warner Music Group, EMI, Sony Music (or CBS Records until 1991), BMG Music, Universal Music Group and Polygram, three of which (BMG Music, EMI and Polygram) were European companies. In 1998, the Dutch Polygram merged into the American based Universal Music Group, leaving five big labels amongst which two European companies. In 2004 BMG Music went into a joint venture with Sony Music, under the name of Sony BMG. Together they controlled almost two thirds of the music publishing market (KEA, 2006). In 2009, Sony Music bought

the other 50% market share from BMG, leading to a complete merger of Sony Music and BMG Music into Sony Music Entertainment.

Since then the music market has been dominated by the Big Four: Universal Music Group, Sony Music Entertainment, Warner Music Group and EMI Group, each of which consists of many smaller companies and labels serving different regions and markets. These four companies possess 70% of the world market and 80% of the US music market. EMI Group is the only European based company. Sony Music Entertainment is partially American, partially Japanese. Universal Media Group is US based, but owned by the French Vivendi. Warner Music Group is an American company. The main record companies also own the largest music publishing companies. They each own a number of labels, which operate relatively autonomously on the level of A&R, marketing, finding and promoting new talent. Sony Music Entertainment and Universal Music Group are part of larger media conglomerates, which also own television, film, mobile communications and other entertainment enterprises. Table 3 shows the ownership details and sales figures of these companies in 2010.

Table 3: The big four record companies

	Headquarters	Owner	Revenues in 2010
Universal Music Group	United States	Vivendi, France (since 2006)	4.449 billion euro (cash flow 470 million euro)
Sony Music Entertainment	United States/Japan	Sony Corporation of America, US (since 2008)	4.240 billion euro* 470.7 billion Yen (operating income is 38,9)
Warner Music Group	United States	Access Industries, US (since 2011)	2.186 million euro** 2.984 billion dollar (operating income 90 million)
EMI Group	United Kingdom	Vivendi, France (Since November 2011; before November 2011: Citigroup, US	1.792 billion euro*** 1.6 billion pounds

^{*} Exchange rate 111 yen to 1 euro (as mentioned in the company's annual report),

Based on 2010 figures, Universal Music Group is with annual revenues of 4.4 billion euro the largest music label, closely followed by Sony Music Entertainment (4.24 billion euro). EMI Group is the smallest of the Big Four labels (1.7 billion euro).

In 2010 Universal Music Group was the biggest in the US market with a 31% market share of album sales, followed by Sony Music Entertainment with 28%, Warner Music Group at 20% and EMI at 10%. Other companies, the independents, together have a share of 11.02%.

In November 2011, EMI's recorded music business was acquired by Vivendi for 1.9 billion British pounds. A Sony led consortium bought EMI's music publishing unit for 2.2 billion British pounds. If the deals are approved by competition authorities, there will only be three major music companies left, of roughly equal size.

Next to the big music companies, the music market consists of a large proportion of independent SMEs, also known as Indie labels, as well as smaller music publishing companies. They often produce music for niche markets in particular music genres. Table 4 lists a selection of independent labels or record companies. Among the smaller, independent music publishing companies are Bug/Windswept, Kobalt, Famous Music, Peer, Chrysalis and Cherry Lane (Hull, Hutchinson, & Strasser, 2011).

_

^{**} Exchange rate 1 dollar to 0.732708 euro (exchange rate on 30 September 2010),

^{***} Exchange rate 1 pound to 1.12 euro (as mentioned in the company's annual report). Source: Company Annual Reports.

Figures for the US, based on Nielsen Soundscan in Reuters (Reuters, 2011). Soundscan collects information on the sales of CDs and digital downloads.

Table 4: Some of the main independent record companies

Domino Records
Rough Trade Records
Matador Records
Sub Pop Records
Factory Records
Postcard Records
Creation Records
Island
Sanctuary Records Group
Edel Group
Pias Group
(distributed by Fontana, subsidiary of UMG)
Wagran Music
Beggars Group
Indie labels: 4AD, Matador, Rough Trade and XL Recordings

Sources: Music Industry Careers, 2011; IFPI RIN, 2011; KEA, 2006.

There are strong relations between majors and independents. Many independent labels have distribution deals with one of the major music companies. It is also common practice within the industry that the major record companies take over contracts, buy labels or even whole firms once artists look promising or have become successful. Often independent labels which are bought by the major record companies continue to work under their own label and are granted a degree of independence in finding, selecting and promoting talents in the particular niche markets, which they know better than the company headquarters.

Indies are often more flexible and thereby provide more fertile ground for creativeness and innovations than the major record companies. At the same time many indies have difficulty in gaining access to finance and leveraging their intangible assets (copyrights). Other weaknesses are a lack of human and financial resources to apprehend and manage new and complex technological evolutions; difficulty in trans-national distribution and increased market access problems due to ever higher marketing and promotional costs (KEA, 2006).

The high level of concentration has not led to less diversity and the dominance of large US music companies has not led to an equal dominance of US originated music. Rutten (1996) analysed how music is often perceived as the most internationalized form of culture. However the Americanization of the industry which many feared or lamented has never been complete. National repertoire has remained popular, even though national genres have sometimes been influenced by music from the US. For the recording industry tapping into national music and repertoire has been a profitable business. There are numerous national acts, produced by the majors, which do not cross borders but provide for profitable business on national markets.

2.5 Market developments

In this and the following sections, some indicators for market developments are presented. First the developments in the number of firms and employees are described, as well as the developments in value added.⁷ Secondly the developments in sales are discussed. Thirdly changes in music consumption including the piracy phenomenon are discussed (Section 2.6). Fourthly, the shift from offline to online music publishing and distribution is introduced, illustrated by a number of different types of online music services (in Section 2.7).

General economic trends in number of firms, employees and value added

Table 5 and Figure 4 show the development in the number of employees, the number of firms and their annual growth rate between 1995 en 2007.

Table 5: Number of employees, number of firms and annual average growth rate for the EU-27 music publishing industry in 1995-2007

music publishing muusiry in 1993-2007								
	1995	1997	1999	2001	2003	2005	2007	
Employment	15,407	15,328	19,957	19,242	21,242	21,103	21,023	
Bi-annual growth		-0.5%	30.2%	-3.6%	10.4%	-0.7%	-0.4%	
Number of enterprises	4,982	6,000	7,158	7,542	8,795	10,150	11,833	
Bi-annual growth		20.4%	19.3%	5.4%	16.6%	15.4%	16.6%	
Source: Eurostat								

Source: Eurostat.

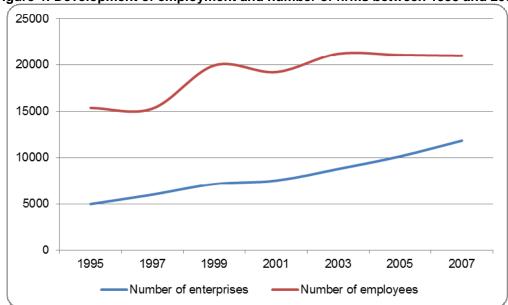


Figure 4: Development of employment and number of firms between 1995 and 2007

Source: Eurostat.

The number of employees and the number of firms in the music industry has been steadily growing. The number of employees in the music industry grew from approximately 15,400 employees in 1995 to circa 21,100 in 2005 and then stagnated. The number of enterprises in the music industry has grown explosively from 4,700 enterprises in 1995 to almost 12,000 in 2007 (+155%). The small growth in number of employees but explosive growth in the

These figures come from the statistical report that is also part of this study and is published as a separate report, containing figures on developments in the Media and Content Industries.

number of enterprises indicates that the average firm size in the industry has become smaller. A possible explanation for this development is that new digital production and distribution technologies, as well as the internet have made it easier for small companies to enter the music market as well as for individual artists to take the production, reproduction and distribution of their music into their own hands.

Table 6 shows the development of the total value added of the music publishing industry in relation to the economy as a whole for the EU27 member states.8

Table 6: Value added, share in overall economy and annual average growth rate for the EU-27 music publishing industry (1995-2007), in million euro

	1995	1997	1999	2001	2003	2005	2007
Value added	1,038	1,049	1,007	1,086	1,418	1,055	943
Bi-annual growth		1.1%	-4.0%	7.9%	30.5%	-25.6%	-10.6%
Share of total value added in EU27	0,015%	0,014%	0,013%	0,013%	0,017%	0,012%	0,010%

Source: Eurostat.

As the table shows, the figures have been fluctuating over the years. In 2003, the value added of the music industry grew strongly by 30.5% over two years up to 1,418 million euro. Over the following two years, it declined with almost 26% to 1,055 million euro and again declined with almost 11% the following two years to 934 million euro. The share of the music industry in the total MCI value added declined from 0.015% to 0.010%. The growth rates between 1999 and 2003 are remarkable because sales of physical records already showed a sharp decline during that period. An explanation could be that other revenue streams such as those from performance rights of music played on the radio, live performances or music used in films, video and games have risen.

KEA (2006) defines value added as follows: "Value added takes as its starting point the Gross Domestic Product (GDP). This measures the total annual output of goods and services produced by residents of a particular country. It includes exports but excludes income from abroad. When this income is added to GDP, the result is Gross National Product (GNP). GNP and GDP measure the economy's output. The gross output of an industry measures the industry's value of sales in a particular year. However, gross output of an industry overestimates an industry's contribution to national income because it also includes the value of inputs produced by other industries. Gross Value Added is therefore usually taken to represent the true contribution that an industry makes to the national economy. This is the value of gross outputs minus the value of inputs from other industries. This added value of a particular industry is equivalent to the total staff costs plus profits before tax.

Netherlands
4%
Other countries
18%

Sweden
5%

United Kingdom
23%

Germany
17%

Figure 5: Share of EU Member States in the total value added of the publishing industry in the EU-27 in 2007

Source: Eurostat.

Figure 5 shows the six countries with the largest share in European music publishing and recording industry. These countries are France, United Kingdom, Germany, Italy, Sweden en The Netherlands. France has the largest music sector with a share of 27% in value added in 2007, followed by the United Kingdom (23%) and Germany (17%). The high figures for France and the United Kingdom might be explained by the fact that two of the largest music companies in the world are based in these countries (Universal Music Group is a French-American company and EMI Group is situated in the United Kingdom).

Figure 6 shows how the total value added of the six EU Member States with the largest share in value added in the music publishing industry has been fluctuating strongly over the years, especially in the United Kingdom, possibly as a result of more and less successful years in the release of albums and songs.

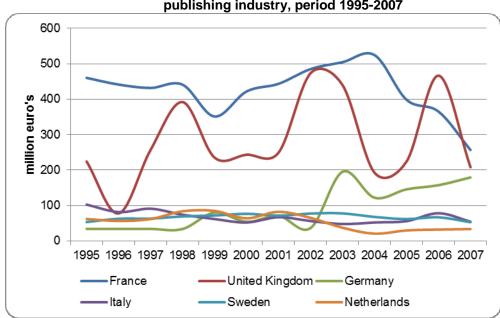


Figure 6: Six largest EU Member States in terms of share in total EU value added in music publishing industry, period 1995-2007

Source: Eurostat.

Table 7 shows how the share of the six largest EU Member States in the total value added of the music publishing industry changed between 1995 and 2007.

Table 7: Six EU Member States with largest share in the total value added of the music publishing industry and national growth 1995-2007

	1995 million euro's	2007 million euro's	Annual growth since 1995
France	460	257	-4.8%
United Kingdom	225	208	-0.6%
Germany	34	179	14.8%
Italy	103	55	-5.1%
Sweden	53	53	-0.1%
Netherlands	62	34	-5.0%
Other countries	101	157	
Total value added EU27	1038	943	-0.8%

Source: Eurostat.

As the table shows, France, the United Kingdom and Germany have the largest markets in 2007. The total value added declined from 1038 million euro in 1995 to 943 million euro in 2007. In spite of that Germany benefitted from growth: its value added expanded from 34 to 179 million euro, an average annual growth of 14.8%. Germany still has a large physical market (CD sales), retail prices are more stable and sales of deluxe and special edition products are strong, there have been no systematic store closures, consumers are more conservative and cannibalisation rates from online piracy are lower (IFPI, 2010). In 2010, 81% of the music revenues in Germany came from physical sales, which is high compared to the European average of 73% (IFPI RIN, 2011).

Apart from Germany no other country had a positive average annual growth of value added since 1995. Value added declined for the United Kingdom (-0.6% on average per year), Sweden (-0.1%) France (-4.8%), Italy (-5.1%) and the Netherlands (-5%). This average annual decline in these countries could be explained by the same factors which are usually presented as the explanation for the overall, global decline in revenues from music sales. Firstly, digital music consumption has replaced physical music consumption and digital sales have so far been unable to compensate for losses in physical sales. Secondly, by the late 90s most people had by then replaced their vinyl collections by CDS, and as a result sales from record companies' back catalogues came to a halt. Apparently the music companies have also been unable to compensate the losses in recorded music sales with gains in other revenue streams such as royalties paid over music used in film and games. Also note that revenues from live performances are not included in this Eurostat category. However, more data and detailed study of the developments in individual countries are required to explain the observed trends.

2.5.2 Sales and other revenues

In the following section, music sales figures are discussed. These are figures used by the industry as indicators of its economic health. The figures presented have a different and in some cases more recent time span than the more general economic statistics presented in the previous section, so they can not be directly compared.

Figure 6 shows the revenues from the sale or recorded music in the global music industry have been declining in the last five years.

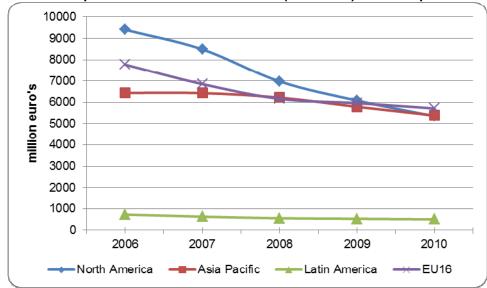
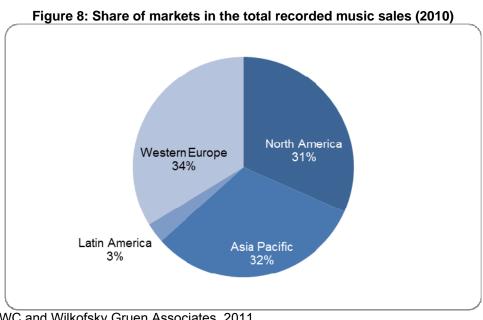


Figure 7: Development in recorded music sales (2006-2010) for the separate markets

Source: PWC and Wilkofsky Gruen Associates, 2011.

The decline has been sharpest in North America. The recorded music sales in North America declined from 9.40 billion euro's in 2006 to 5.35 billion euro in 2011 and almost reduced to half of its previous size (-43%). The music sales in EU16 declined from 7.77 billion euro to 5.71 billion euro. The music sales market in Asia Pacific has been quite stable and experienced the smallest decline of all markets: the sales declined from 6.44 to 5.4 billion euro in 2010 (-16%). The Latin American music market remained small and declined with approximately 30% between 2005 and 2010 to 501 million euro.



Source: PWC and Wilkofsky Gruen Associates, 2011.

Figure 8 shows that the Western European, North American and Asian Pacific markets are similar in size: they each hold approximately a third of the global market in music sales. The share of the Latin American market is compared to the other markets very small: only 3%.

Figure 9 shows the decline in the music sales between 2006 and 2010 in 19 European countries.

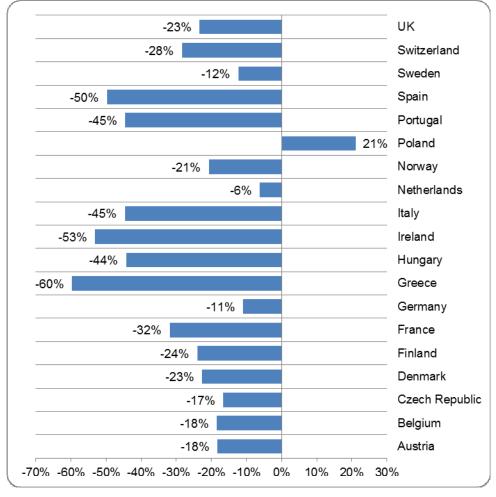


Figure 9: Market decline in record sales trade value between 2006-2010 (%)

Source: IFPI RIN, 2011.

Except for Poland, the recorded music sales in all European countries declined. Some countries experienced a larger decline than other countries. In Greece (-60%), Ireland (-53%), Spain (-50%) sales went down with more than 50%. Other countries such as Portugal (-45%), Italy (-45%) and Hungary (-44%) also experienced a sharp decline. The traditionally largest music markets in the United Kingdom (-23%), France (-32%) and Germany (-11%) also declined, but less than the other markets.⁹

In 2010, the United Kingdom and Germany have the largest music markets (approximately 2 billion US dollar each), followed by France at 1.1 billion US dollar (PwC, 2011).

To analyse the impact of digitization and the internet on the music industry, sales figures need to be broken down into music on physical carriers (CDs and other physical carriers), and digital music from downloads on the internet through app stores and licensed services.

_

Note that sales figures only take into account the sales of recorded music, while Eurostat figures on value added also include the revenues from other sources, such as revenues from live performances, radio play etc. if these are also part of the music firms activities. This might explain diverging patterns shown by sales figures and added value figures for the respective countries.

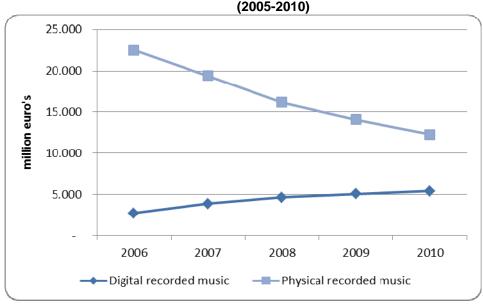


Figure 10: Development in global consumer sales for physical and digital recorded music (2005-2010)

Source: PWC and Wilkofsky Gruen Associates, 2011.

Figure 10 shows the fast global decline of consumer spending on physical music formats (including albums, single sound recordings and music videos) and the small but slowly growing consumer spending on digital recorded music. The latter consists of music distributed to mobile devices and music downloads from the internet through licensed services and app stores like Apple's iTunes store. Also subscription-supported services such as Spotify and Last.fm are included. Live performances and merchandising revenues were not included in this graph, because country-by-country basis data was not available. Because spending was measured at retail level, PWC explains that the PWC figures can be substantially higher than wholesale or trade value revenues.

In 2006, the physical music sales counted for 22.5 billion euro globally. In 2010, these physical sales declined to 12.3 billion euro, a sharp decline of 10.2 billion euro (-54.6%). The digital music sales grew from 2.7 billion euro in 2005 till 5.4 billion euro in 2010 (+100%), a doubling of the sales figures (IFPI RIN, 2011) and 31% of total recorded music sales. These figures show that, although digital sales show a steady growth curve, decline in physical sales was not compensated by an equal increase in digital sales, leading to an overall decline in revenues for the global recorded music industry.

The growth in digital sales and decline in physical sales is mainly due to changes in volume rather than changes in prices. PWC (20110 predicts that the figures for physical sales will further decline, but this decline will be more moderate and at some point stagnate, because, according to PWC (2011), there is an expanding group of – relatively affluent – people above 45 years who still prefer music in physical formats. According to PWC estimates, globally, digital distribution will pass physical distribution in 2012 and will account for 61% of spending in 2014.

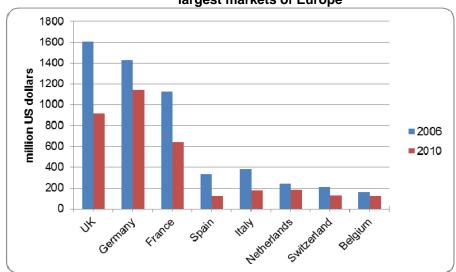


Figure 11: Decline in physical sales of record music 2006-2010 (in million US dollars) for eight largest markets of Europe

Source: IFPI RIN, 2011.

Figure 11 shows the decline of physical music sales in the eight largest European music markets between 2006 and 2010. These IFPI figures on physical music sales include CDs, vinyl, cassettes, also those sold on the internet via online stores (e.g. Amazon). The United Kingdom has witnessed the largest decline (-684.6 million dollar between 2006 and 2010) and is losing its position as the number one music market in Europe for physical sales. Germany is taking over this position with sales figures for physical sales of 1.14 billion dollars in 2010. The Spanish and Italian physical sales reduced by half: the sales figures in Spain declined from 380.5 million dollars in 2006 to 122.1 million dollars in 2010. The Italian physical sales declined from 383.3 million US dollars in 2006 to 177.7 million US dollars in 2010.

The decline in physical sales has led to the closure of many retail outlets. For example in the UK, in 2009 around 1,000 outlets were closed. The 80 Best Buy stores which were opened since 2004, and which also sell recorded music, countered this loss to a small degree (PwC and Wilkofsky Gruen Associates, 2010).

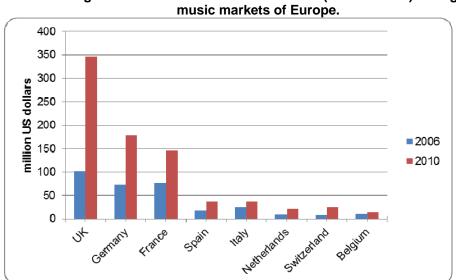


Figure 12: Growth in digital sales of record music 2006-2010 (in US dollars) for eight largest music markets of Europe.

Source: IFPI RIN, 2011.

The IFPI figures on digital sales (see Figure 12) contain figures for sales via online, mobile and subscription services. Since 2008, income from add-supported and ringtone services are included.

When looking at the changes in digital sales between 2006 and 2010, in the United Kingdom they grew explosively from 101.7 million US dollars to 347.4 million dollars (+242%). In Germany and France digital music sales also show growth: the German digital sales figures grew from 74.2 to 178.2 million US dollars (+140%). The French market shows a somewhat smaller but still considerable growth: from 75.6 to 146.1 million US dollar (+93%). The size of the other European markets is considerable smaller, but also the digital sales figures for Spain (+102%), The Netherlands (+141%) and Switzerland (+254%) grew explosively. The growth in digital music sales is the smallest in Italy (+43%) and Belgium (+34%).

Figure 13: Decline in physical sales of record music and growth in digital sales of recorded music 2006-2010 (in US dollars) for eight largest music markets of Europe

Source: IFPI RIN, 2011.

Table 8: Compensation of decreases in physical sales by digital sales, 2006-2010 (in million US dollars)

Change in US million dollars	United Kingdom	Germany	France	Spain	Italy	Nether- lands	Switzer- land	Belgium
physical sales	-684.6	-288.1	-484.9	-208.4	-205.6	-55.8	-83.3	-44.5
digital sales	245.7	104	70.5	18.5	11	12.4	18.3	3.5
difference	<i>-4</i> 38.9	-184.1	-414.4	-189.9	-194.6	-43.4	-65	-41
% not compensated decrease	64%	64%	85%	91%	95%	78%	78%	92%

Sources: IFPI RIN, 2011; TNO.

When combining the decline in physical sales and the growth in digital sales (see Figure 13 and Table 8), one can see that the decline in physical sales is not compensated by the increase

in digital sales. In Table 8, the remaining difference in decrease in physical sales and the increase in digital sales is formulated as a percentage. The figure of not compensated decrease in physical sales is the largest in Italy (95%), Belgium (92%), Spain (91%) and France (85%). These figures to not take into account the (growing) revenues from other revenue streams in the music industry, so they paint a one sided picture, but they do show how digital sales are in many countries still relatively small. A fuller discussion on the developments in the different revenue streams follows below.

The figures of physical and digital sales can be broken down into different types of products: CDs, DVD and other physical carriers like singles, vinyl and cassettes and digital singles and albums. Figure 14 shows the change in sales volume of these products between 2006 and 2010.

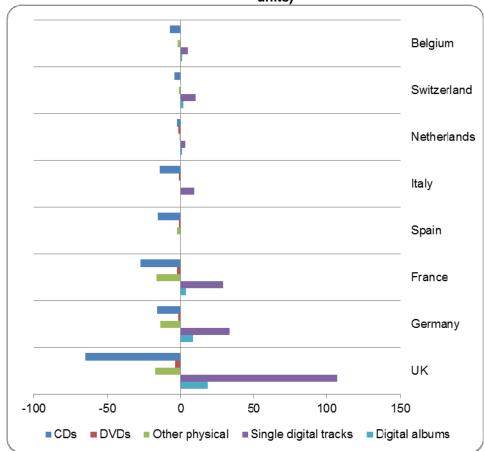


Figure 14: Change in sales volume of music products between 2006 and 2010 (in millions of units)

Source: IFPI RIN, 2001.

The number of CDs sold declined in all countries and sales of digital tracks increased. In the United Kingdom, the number of CDs sold declined with 64.4 million units to 99.8 million CDs. In Germany and France, the decline in the number of CDs was considerably smaller: in Germany still 98.7 million CDs were sold, in France 48.4 million CDs were sold.

Of the two digital formats distinguished in the IFPI figures in Figure 14 (single tracks and albums) single tracks are more popular than albums, in contrast to the sale of physical music, where albums are more popular. This has also been affected by the record companies' pricing policies and the fact that they all but stopped releasing singles. The sale of digital single tracks is growing much faster than the sale of digital albums. In the United Kingdom between 2006

and 2010 107.2 million more singles were sold, amounting to a total figure of 159.7 million digital singles. In France, the sales of singles grew with 29.2 million up to 35.1 million digital singles. In Germany, 33.4 million more singles were sold, reaching in 2010 a total of 59.4 million digital singles sold. In 2010, the numbers of sales in Italy (12.4 million), Switzerland (12.3 million), Belgium (8.0 million) and The Netherlands (5.7 million) are considerably lower but also increasing. The penetration of digital distribution models seems to be slower in Spain than in the rest of the world. Plataforma Tecnológica de los Contenidos Digitales para el Ocio y la Cultura (2011) provides numbers of downloaded tracks. In the last two months of 2008, 1.042 million tracks and 528,000 mobile mastertones were downloaded. In the first quarter of 2009, this number grew up to 1.65 million downloaded tracks and 792,000 downloads of mastertones.¹⁰

The physical market has largely abandoned singles because they were no longer profitable. Physical distribution is much more expensive than digital distribution, which puts the physical market at a long-term disadvantage (PwC and Wilkofsky Gruen Associates, 2010).

There are several reasons for the constant fall of recorded music sales and overall revenues. According to the industry, piracy is the main reason for decreasing sales of CDs. KEA suggests that other factors might also contribute to negative sales' figures, such as competition from other entertainment sectors for the consumers attention, higher spending of young consumers in ICT products (and therefore less money to spend on music), and the lack of creativity in the music industry (KEA, 2006). Another reason is that online distribution of music has so far been dominated by single track sales, instead of bundled albums and overall prices for online music have been (slightly) lower. Single track sales allow consumers to be more critical and allow them to buy only the best songs. This also contributes to a drop in the volume of music sales. Also varying levels of trust in online transactions and credit card penetration is of influence (IFPI, 2011). In addition, undeveloped technology infrastructures, taxation levels and shortcomings in the marketing of music services might be influencing the market developments (ibidem).

To gain a picture of the overall developments in revenue streams in the music industry one needs to look not only at (changes in) the sales in physical and digital music, but also take into account revenues from other sources. Revenues from the sales of recorded music are still the largest revenue source for the music industry, but have been declining in recent years. Revenues from music publishing, through the collection over the use of songs in recordings, live performances, radio broadcasts, film and TV etc., are the second largest source of income and have been growing, also due to the increasing use of music on the Internet, on social networking sites and in video games (PwC and Wilkofsky Gruen Associates, 2010) (Hull, Hutchinson, & Strasser, 2011).

Figure 15 shows growth in performance rights revenues between 2006 and 2010.

_

http://www.asimelec.es/Events/EventDetail.aspx?ID=172&sp=docs

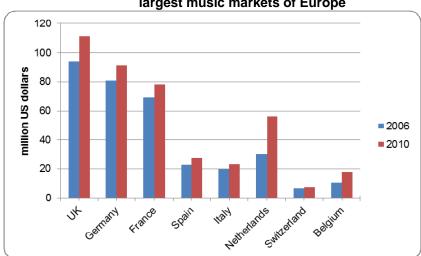


Figure 15: Growth in music performance royalties 2006-2010 (in million US dollars) for eight largest music markets of Europe

Source: IFPI RIN, 2011.

Performance rights' revenues have been growing in all of the eight largest European music markets. The largest music markets also have highest figures for performance rights: revenues in the United Kingdom grew 18% between 2006 and 2010 to 111.1 million dollars; in Germany they grew with 13% to 91 million dollar and the royalties in France also grew 13% till 78.1 million US dollar. Spain, Italy, Switzerland and Belgium have smaller markets but show the same growth. Remarkable is the growth in performance rights in the Netherlands: 84% up to 56.4 million US dollars.

Recent IFPI figures show that in 2009-2010 main revenues came from radio advertising, but it is not immediately clear how much the music industry gains from radio advertising through collecting the performance rights for the music played on radio, because part of the advertising revenues will go to the radio stations (see Figure 16). Figures over a longer period of time, representing all revenue sources are required, to identify and quantify the structural changes in the sector.

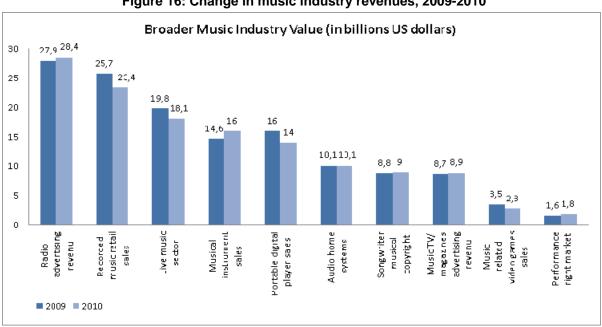


Figure 16: Change in music industry revenues, 2009-2010

Source: IRPI RIN, 2011.

2.6 Music consumption

Figure 17 shows some Nielsen data on how online consumers use different types of music services.

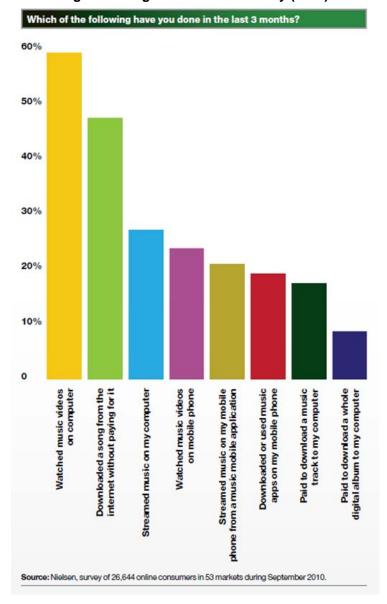


Figure 17: Digital consumer activity (2010)

Source: Nielsen in IFPI, 2010, based on an online survey of 26,644 consumers in 53 markets in September 2010.

The figures show that online music consumption habits are diverse and spread over different types of services. Most popular are music video platforms. Almost 60% of worldwide online consumers watched music videos in the past three months. Almost 50% admits to download music without paying for it, approximately 18% paid to download music, another 8-10% pays to download a whole album. Approximately 25% listens to streaming music on its computers, 20% listens to streaming via its mobile phone. Downloading or listening to music without paying is the most common way of consuming online music.

2.6.1 Piracy

Digital distribution, of music through peer-to-peer (P2P) networks and on user generated content platforms have provided consumers with new ways of sharing and searching digital content, with most of the content shared illegally (OECD, 2009; Preston & Rogers, 2011). Over the last two decades unauthorised downloading of copyrighted content, or piracy, has become a major problem for the music industry. Piracy is not a new phenomenon. Also before its appearance in the online domain music was copied to tapes, CDs and DVDs and distributed and sold illegally, sometimes by large scale criminal organizations. However, the scale on which piracy takes place has increased massively in the internet domain.

Piracy over the internet has increased over the years. In 2005, the number of copyright infringing music files rose to 885 million, including 775 million from P2P networks (KEA, 2006). In 2000 one in four American adult internet users said they had downloaded music on the internet, of which 54% used Napster to do so (PEW Internet, 2009). In 2009, 15% of the American online adults admitted to downloading or sharing files, by using peer-to-peer networks or BitTorrent.

The contrast with legally available files in 2005 is striking: only 2 million legal files were shared. Nielsen figures (Nielsen Music, 2011) show that 35% of global online music consumers admitted to having a file sharing programme or downloading music for free in the past three months with notable differences between Asia Pacific and Latin America where unauthorised downloading is much higher and North America and Europe with lower figures for unauthorized downloading.

Consumers have several reasons to download illegal content: the wish to expand their collection, but not having the funds for it (non-purchasing power) or the wish to first listen to a few tracks before deciding whether they want to buy the album. Also, the mere and vast availability of copyright infringing music files and the mass uptake of P2P file sharing technology, is giving young generations the impression of music as a free product (KEA, 2006).

The exchange of unauthorised copyright protected content is challenging the music industry. The competition of 'freely available' music puts pressure on legitimate online music and may have slowed commercial services that offer access to content online (OECD, 2005). Others however claim that the rise in piracy is partly due to the slow response of record companies to the new, digital possibilities and their late cooperation with legal music service providers. They consider piracy as a logical consumer response to oligopolistic pricing of the major recording companies and to their bundling strategies, by which they forced consumers to by full CD albums, instead of enabling them to buy only the singles of the songs they like (Cooper, 2008). According to this line of arguing piracy is seen as a way by which consumers express their discontent about a consumer unfriendly market.

According to IFPI, due to piracy, worldwide music sales dropped around 31% between 2004 en 2010 (IFPI, 2011). The Tera Consultants (2010) report "Building a digital economy" also underlined the negative impact of digital piracy (including file-sharing via p2p networks). However, others come to a more nuanced conclusion on the economic effects of illegal file sharing. Research by Rob and Waldfogel (2004) showed that the displacement rate of sales in the music industry is 0.20, meaning that every five illegal copies in the market reduced the sale of one copyrighted good. In a statistical analysis on the influence of illegal file sharing on the Dutch music market, TNO (2009) concluded that Dutch downloaders buy the same amount of music as non-downloaders. The substitution ratio for the Dutch music industry was estimated at 5-7%, meaning that for every 15 to 20 downloads one track less is sold. Over

time, downloaders go to more concerts and buy more merchandise (TNO, 2009). Even though the TNO research was conducted for one country only, it suggests that illegal downloading might not be the only factor affecting the revenues in the music industry.

It seems that the music industry has not sufficiently adapted to the transfer from the offline to the online market. Cooper (2008) also questions the figures that music trade organizations offer of their presumed losses due to piracy. He argues that their high revenue figures in the late nineties were largely the effect of what he calls a CD bubble, in which record companies artificially kept prices high, cashed high margins and prevented more competitive pricing models. Moreover, the sale of CDs had already reached its top as most consumers had by then replaced their vinyl collections and CD sales were suppressed by high prices. Retail and wholesale prices increased despite the fact that per CD costs had decreased sharply, due to digital technologies which enabled more efficient production and distribution methods. Cooper (2008) thus concludes that "the benefits of economies of scale that would have been passed through to consumers in a competitive market were redirected to suppliers through price fixing".

Seen from another perspective, digital distribution of music through P2P networks has driven up the volume of music consumption and this has not only benefitted consumers, but also artists. Wider distribution of their music, also increases their reputation, increases sales opportunities of music and merchandising and might lead to a wider audience for live performances. However more detrimental effects can also occur. National artists might experience more trouble with compensating a loss in sales revenues with other sources of revenues. They often can charge less for live performances than international artists. The problems for less famous national artists are aggravated because often record companies downturn losses from international, mostly American and British artists, on their less profitable national artists. Because these international artist yield a large part of the revenues for a music label cut backs in investments are shifted down to lesser-known artist and local marketing divisions, thereby hitting the local industries and local artists (Tiny Mix Tapes, 2010).

Music labels continue trying to stop the copyright infringements by suing suppliers of file-sharing technologies and individual file-sharers. In October 2010, A Finnish court sentenced a peer-to-peer hub operator to a four-month suspended prison term and compensation for copyright holders to the value of 307,450 euro. In Spain, the representative of the music industry, Promusicae, filed a claim for 13 million euro against an individual for designing networks (Bluubster, Manolito and Piolet) that allows the transfer of music for free (Preston & Rogers, 2011).

Since 2007, the record industry has been successful in achieving legislation from governments that hold ISPs responsible for activities that result in copyright infringement on their networks. In Belgium for example, court ruled that an ISP must install a filter to prevent users from illegally sharing and downloading music (Preston & Rogers, 2011). In 2009 in the UK, a court seized 70.000 pounds from sellers of counterfeit CDs and used those funds to compensate labels (PwC and Wilkofsky Gruen Associates, 2010). This was the first time in the UK that companies were awarded compensation (see also 5.5).

A final point that should be made concerning piracy is that data on illegal music downloading are scarce. The industry usually presents the decline in CD sales as an indication of the number of illegal downloads, but the decrease in CD sales cannot be solely attributed to illegal file sharing. Other factors, such as changing patterns of music consumption and

decreasing spending on leisure products influence sales as well.¹¹ PEW, the institute which extensively researches internet use, used to collect data on the number of people downloading files to their computers, but has ceased to include questions on this topic in its survey on internet uses since 2007. This contributes to the difficulties in adequately analysing the phenomenon.

2.7 Online music services

In this section, some of the characteristics and uptake figures of the new online music services, which have emerged over the past two decades, will be looked at in more detail.

2.7.1 Peer-to-peer networks

MP3, shorthand for a software algorithm that was developed to compress audio and video files, has made it possible to make music available on the internet on a much larger scale than before. Soon after MP3 software became publicly available, people started to convert their CD collections into MP3 files, which could easily be shared through the internet with friends and downloaded on portable devices.

In 1999 Shawn Fanning developed Napster, a software application to share music files by remotely accessing each other's drives instead of a central server. This peer-to-peer (P2P) system allowed massive numbers of files to be accessed simultaneously by millions of users. In one year, from 2000 to 2001, Napster grew from 1.1 million users to approximately 13.6 million users. In 1999 already, Napster was brought to court by the Recording Industry Association of America (RIAA), for copyright infringements. In spring 2001, Napster was forced to eliminate all copyrighted music files from its servers. Bertelsmann tried to establish a legal alternative for Napster, and took over the majority of Napster's shares. This network failed, partly because Bertelsmann could not reach an agreement with the major labels to license their music to the online service (Nguyen-Khac, 2003). The company's shares were subsequently bought by Roxio and currently the service is owned by chain store Best Buy as a legal online music service. Putting Napster out of business did not end the phenomenon of sharing music through P2P networks though. Many other P2P services followed; KaZaA, Gnutella, Morpheus, iMesh, Limewire, Grokster, BitTorrent, to name only a few of the best known services, and file sharing, up to the present day, has been unabated.

2.7.2 Online music stores

The US based electronic commerce company Amazon was launched in 1994. It started off as a book seller, but soon also incorporated music CDs, MP3 downloads, DVDs, games, consumer electronics and other products. It is the world's largest online retailer, and is still an important player in the online music market. Initially Amazon was just an online retailer for physical music sales, but in 2007 it launched an online music download service and in 2011 a streaming cloud service, and a service for mobile MP3 tracks.

In 1996, the first online store exclusively for music Cductive opened its doors. They sold MP3s from independent labels for 0.99 cents a track. One year later, the better known MP3.com also started selling MP3s. The first mainstream MP3-player, Nullsoft's WinAmp, was made public several months earlier in April 1997. MP3.com tried to reach an agreement by requesting the industry to add its libraries to their services, but they could not reach an agreement (Tiny Mix Tapes, 2010). Fear of piracy and of jeopardizing existing revenue streams have been reasons for content owners not to licence their content to online service providers. On the whole the music industry was slow to embrace the digital innovations. Only

http://www.musicweek.com/story.asp?storyCode=1044980§ioncode=2

after the Napster episode did more legal music download services appear, which did manage to secure contracts with or were launched by the major music labels, such as AOL MusicNet (a joint venture between AOL, RealNetworks, EMI and BMG) and Sony's Pressplay (a joint venture between Sony and EMI).¹² Both were download services, based on a complicated subscription model. In 2003 Apple convinced the music industry to open up its catalogues for digital music downloads in the iTunes online music store, and this became the first significant step into the emergence of a legal digital online music market. The iTunes-store offered music, but later also music videos, ringtones and several other services such as audio books, television shows, games and in some countries movies and movies rentals. Within two weeks after its introduction, iTunes processed more than two million paid downloads. In the first year, it had a higher turnover than the competing download platforms of the major labels (Musicnet and Pressplay). This success was due to the easy comprehensible software and the uniform price model of 99 dollar cents per download. Another factor which is thought to have contributed to its success is the unlimited usability of downloaded music on several Apple devices (Nguyen-Khac, 2003). iTunes followed a strategy based on uniform pricing and system lock-in. System lock- in means that Apple used a proprietary DRM system to prevent people from playing songs bought in the iTunes store on other than Apple devices. On its own devices only music could be played, which was protected with Apple's DRM system or music with no DRM at all (Kravets, 2007).

In 2009 the majors and Amazon agreed on a tiered pricing system, without any proprietary DRM, for Amazon's online music sales, in order to create more competition for the popular iTunes store. In that same year Apple also abandoned its DRM system for music. Songs bought at the iTunes store are now DRM free and can be played on any device. In return music labels are charging Apple higher fees for its DRM free songs, to compensate possible future losses. In April 2009, Apple introduced new price points for their songs − based on what music labels charge Apple: €0.69 for older songs, €0.99 for regular songs and €1.29 for new and popular songs. Most of the albums will continue to cost €0.99. All existing and already purchased secured songs, can be upgraded − for a small fee − to the DRM-free quality. The DRM-format can be played on all types of music players and can be copied, converted and put on CDs without restrictions. However, the music will remain tagged, so the music can be retraced to one's iTunes-account.¹³

By end 2005, there were well over 200 online download services in Europe, but due to the dominance of Apple iTunes, these accounted for less than 20% of European online music sales (Screen Digest Ltd, 2006). Since then the situation is likely to have changed, because of the still volatile nature of this emerging market and many services stopped or were launched since then. Table 9 lists some of the main services in the European market currently (Autumn 2011) available.

-

Pressplay already went out of business after one year and was bought by Roxio, which also bought Napster. Both services were used by Roxio for a later relaunch of Napster as a Legal music service.

³ Source: http://www.apple.com/nl/pr/library/2009/01/06Changes-Coming-to-the-iTunes-Store.html

Table 9: Online music services on the European market

	Availability of the service in European member states	Type of service/provider
Spotify	Sweden, Norway, Finland, Denmark, United Kingdom, France, Spain and the Netherlands.	Subscription
Deezer	France, Germany, Italy , Spain and the United Kingdom	Subscription
iTunes	Almost all Member States	Store
AmazonMP3	United Kingdom, Germany, France, Austria and Switzerland	Store
7digital	United Kingdom, Germany, Ireland, Luxemburg, France, Spain, The Netherlands, Belgium, Italy, Portugal, Switzerland, Austria, Sweden, Finland and Norway.	Store
Vodafone	Spain	Telecom
CuboMusica	Italy	Telecom
TDC	Denmark	ISP
WiMP	Norway, Denmark, Sweden and England	ISP (Teleonor and Aspiro)
FASTWEB Music	Italy	ISP (FASTWEB and Dada)
MusicHub	Ireland	ISP (Eircom)

Source: IFPI RIN, 2011.

Many of the online music providers are still struggling to make profits and have to compete against unauthorised downloading. The standard music price is 99 cents per track. This figure is not fully set by the market, but by the record labels. They charge a wholesale price of around 65 cents per track. This wholesale price is set to avoid cannibalisation of their physical products: a lower online price would cause even more revenue loss for CD retailers. Another reason for this pricing is the changed buying pattern of consumers: they mostly buy only one or two tracks from an online album, rather than the full CD. Music labels compensate this loss in revenue by asking a relatively higher price for the single tracks (Anderson, 2004).

Music is increasingly consumed on music vide platforms. MTV was of course an early exponent of this trend and since its launch in 2005 video platform YouTube has become an

2.7.3 Video platforms

important partner in the revenue streams of the music industry. According to YouTube, music companies such as Sony, Warner, Universal and EMI, but also independents and individual artists have doubled and even tripled their monthly revenues from the use of music videos on YouTube in 2010, making up to millions of dollars a month from the advertising alongside their videos. Two years earlier, the music labels and Google, owner of YouTube, could not reach an agreement on the pay-per-hit-price. It even led to the removal of labels' videos from the site (Clarck, 2011). Record labels, digital music stores and subscription services want consumers to pay for music, but YouTube claims that giving away music for free generates as much money for copyright holders as charging for it, through the advertising revenues it generates¹⁴ (Buskirk, 2011). The only party who might be disadvantaged by this construction

_

In December 2010 YouTube developed in collaboration with Last.FM a streaming service, called Tubeify. Users can stream music and videos directly into their browser, without subscription. After receiving an invitation, users can sign in with your Facebook or Google account. However, since March 2011 no activity on this service is reported. www.tubeify.com

is the artist: as a single download on iTunes pays more than a single view on YouTube (Evolver.fm, 2011). But higher number of visitors could compensate for the lower prices.

In 2007, Universal Music Group launched, in collaboration with Google/YouTube, its own add-supported free video service: Vevo. Later, Sony Music Entertainment and EMI joined this venture. Warner Music Group is the only music company that is not involved in this video service, because they exploit the competitor: MTV Networks.

Another new platform on which the four large labels join in partnership, is the social networking site MySpace. They provide on-demand and ad-supported streaming, music downloads, a subscription plan and other activities such as the sale of concert tickets and merchandise. As part of the deal, music companies received an equity stake in MySpace Music, which has over 70 million users (MySpace; Preston & Rogers, 2011). Currently MySpace's popularity is shrinking, as other social networks like Facebook and Twitter, are taking over its position.

2.7.4 Subscription (streaming) services

In addition to downloading songs or albums consumers also listen to online music, through streaming platforms such as Spotify, Last.fm and Google's Music Beta (the latter is still only available in the US). The music databases of these services contain music from the large music labels. For every song played, royalties are paid to the artist and the music label. Consumers need to subscribe to these services in order to listen to the music in the database. Consumers can usually choose between two types of subscription models: a freemium model and a paid-model. The freemium model offers a limited number of streaming songs or listening time (in times played and hours listened) per week and is interrupted by commercial breaks between the songs. The paid-model offers an unlimited amount of streaming music and listening time (in times played and hours listened), without interruption of commercials. This model can be extended with the possibility to listen offline, with enhanced sound quality and exclusive content.

Subscription services can also be used to discover new music: information about the music users listen to and their preferences are sent to a database and used to suggest other music of interest to users.

Spotify (of Swedish origin) is currently one of the leading music providers in Europe. In 2011 it had approximately 10 million registered users of which 1 million paying users. In May 2011 Spotify introduced its services to the American market. This introduction was announced long before, but was delayed by negotiations with the music publishers and labels.

Spotify is now also trying to compete with iTunes with its own online music store. Subscribers can buy the music in their playlist and sync it to their devices. Buying more songs provides pricing advantage: 10 songs cost 1.00 euro per track; 100 songs cost 0.60 euro per track (Spotify, 2011a). (See appendix B for more information on Spotify).

Deezer, a French subscription service, reaches more than 13% of active internet users in France (IFPI, 2010). In 2010, Deezer formed a partnership with mobile operator Orange (PwC, 2011). Other new players in the subscription services market are Aspiro, BSkyB (television), Universal Music, Virgin Media, Warner Music Group (record labels), Vodafone, Telenor, Nokia (telecom), Platekompaniet (music store) and Dailymotion (online videos). Virgin Media UK launched a mobile music store based on the book club model: for a monthly fee (3.36 euro) subscribers can download five tracks per month (PwC, 2011). The Finnish internet services provider Telia is offering customers with a mobile package a four month free subscription to Spotify (PwC, 2011).

2.7.5 Music in the Cloud

The cloud is the term used for data being stored and made available through a virtual cloud of webservers. Space on these data servers, also known as boxes, can be hired for a fixed or flexible fee (depending on storage space) per month or year. Not only music, but also photos and video's can be stored. The stored data can be accessed through any web-connected PC or device. Amazon offers Amazon CloudDrive with 5GB free storage and the possibility to buy and store music bought via Amazon.com (Amazon.com, 2011), Google offers Music Beta with the possibility to listen to songs offline (Google, 2011). Apple introduced iCloud in June 2011. iCloud, offers a service which stores data bought via iTunes and pushes this data to all Apple devices owned by the user (Apple, 2011). CNET News and the New York Post reported that Apple paid 100 to 150 million US dollars in advance to the four major music labels for music licenses. Google already had been negotiating with the music companies, but wasn't able to close a deal (New York Post, 2011). Apple will share the revenues following on the fee (approximately 25 US dollars a year) with the music companies: Apple will take 30%, 12% will go to music publishers, the rest (58%) will go to the labels to be divided between them and their artists (CNET, 2011; New York Post, 2011).

Music companies are also offering cloud based services: Sony Corporation launched Music Unlimited in December 2010 in the UK and Ireland. Carphone Warehouse and Best Buy also launched cloud based services in 2010 in the UK (IFPI, 2010).

2.7.6 Social networks

Social network sites like MySpace, Facebook and Twitter have become important players in the music market. They make it possible for artists to reach their audience and sell their music directly to users. Their large user bases open up new distribution opportunities, also for unsigned artists. Social network sites also enable artists to communicate with their fans and to inform them on their activities and upcoming events. This new form of direct contact between artists and fans or consumers threatens the position of music labels. On the other hand the labels may also profit from social networks and other digital platforms as they enable major copyright holders to draw revenues from offering streaming music services through these social networks. MySpace for instance offers a free streaming music service for its members. Also some of the new music service provides have entered into deals with social networks to link their services to one another and have mutual benefits from sharing their user base. Examples are Spotify (see Appendix B) and Rhapsody, Songza, Slacker, Rdio, MOG, MixCloud, Jelli, iHeartRadio, Izlesene, Earbits, Deezer and DailyMotion. 16

2.7.7 Mobile devices

A new generation of smartphones and applications has made more services available across different devices and helped boost the popularity of music downloads. According to the IPTS study on the creative industry (2008) the American market used to be dominated by Apple iTunes/iPod platform (IPTS, 2008). Table 10 shows how in the five biggest European markets Apple has to compete with other popular alternatives like Nokia (having the largest market share in 2010 with 51.2%), RIM (Blackberry), Samsung, Sony Ericsson, LG and Motorola, using Android or other operating systems. Because of Android's open software system, the devices running on this operating system are compatible with more music services and online music stores than Apple devices.

-

Some services are limited to ten devices maximum.

http://developers.facebook.com/showcase/

Table 10: Top smartphone suppliers in Europe (UK, France, Germany, Spain and Italy) among smartphone subscribers (13+), 2009-2010

	ione subs	•			
	July 2009	share	July 2010	share	Change
1		%		%	%
Total Smartphone Subscribers	43,053	100.0%	60,850	100.0%	
Nokia	28.26	65.6%	31,169	51.2%	-14.4
Apple	4,398	10.2%	11,677	19.2%	9.0
RIM	2,746	6.4%	4,886	8.0%	1.6
Samsung	1,976	4.6%	3,121	5.1%	0.5
Sony Ericsson	498	1.2%	1,495	4.8%	3.6
LG	197	0.5%	487	0.8%	0.3
Motorola	180	0.4%	388	0.6%	0.2

Source: ComScore, 2010.

Table 10 also shows the increasing possession of smart phones: an increase in the total number of smart phone subscribers of 41.3% between 2009 and 2010. Decreasing prices will further enhance the dissemination of smartphones.

In 2010, computer tablets have entered the market. First Apple introduced the iPad, but soon other companies like Samsung and HTC followed, producing tables on Android or other operating systems (IFPI, 2011).

Smartphones and tablets offer new possibilities to listen to music. Subscription services offer the option to listen to music anytime, anywhere. Apps make it possible to combine music with pictures and graphics, bringing back – in a different form – the art work that used to be part of the design of vinyl and sometimes CD covers and that was lost in the sale of digital music. Björk for example released her new album in the form of an App, offering two songs for free and giving the possibility to buy extra's like games and visual effects supporting the music.

In several European countries, ISPs and Telecom operators entered into a partnership. For example, the Swedish/Finnish internet service provider Telia offers its customers a four month free Spotify subscription when signing up to a mobile package. In Denmark, internet service provider TDC offers unlimited music downloads to its mobile and broadband customers at no additional charge. Telecom operator Vodafone has the largest number of paid digital music subscriptions in Europe, with 600,000 customers across eight markets (IFPI, 2010).

2.8 Conclusions

During the past two decades the music industry transformed from a product to a service based industry, in which music is no longer sold only in physical form on CDs and DVDs but is increasingly produced in digital form, distributed through the internet and consumed on numerous digital devices, including MP3 players, computers and smart phones.

As digitization enabled easy sharing of music files, the unauthorized distribution of music through P2P networks has boomed since the mid nineties. This, in combination with the fact that most people had by then replaced their vinyl collection with CDs, caused CD sales to drop dramatically. Also, a shift in people's media and entertainment budget from music to for instance games and ICT-related products and services might have contributed to the decline in revenues from music sales, especially amongst young people. Finally, while digital music sales have grown, it has so far been unable to compensate for the loss of sales in physical

music. This is also because digital music downloads can be bought per song, allowing people to cherry pick and pay less than when they still had to buy the full (CD) album.

After an initial exclusively defensive response, including law suits against owners of file sharing servers and/or software, as well as against individual copyright infringers, the music companies have slowly adapted their strategies and started to experiment with business models for sales and rent of digital music, both by licensing their music to online music providers as well as by participating in or launching such services themselves. Most initial attempts to develop viable models failed, but in 2003 the Apple iTunes store brought a first major break through, by offering a comprehensible, user-friendly interface and a standard price per single download. After that more new services followed, some launched by new players in the market, which succeeded in negotiating licenses with the major music companies to distribute their music others developed by the music companies themselves. Many players from outside the traditional music industry have entered the digital music market, like hard- and software companies (Apple, YouTube, Google), telecom providers and ISPs (Vodafone, Orange, Nokia) and online stores (Amazon). They offer music in a range of different business models, including single and album sales, subscription and ad supported services or combinations with pay TV, mobile internet and cloud services' subscriptions.

Of the three main revenue streams in the industry, the revenues from sales of recorded music are largest, but declining. Revenues from music publishing and live performances are significantly smaller but (still) growing.

3. Transition to digital and online music

3.1 Introduction

The market developments described in Chapter 2 have already showed the impact of digitisation and the internet on the music publishing markets. In this chapter, these developments are discussed from the perspective of their impact on the value chain (production, delivery/distribution, marketing and consumption of music).

Wikström (2010) characterizes the new music industry dynamics with three basic features: In the old music industry there were strong connections between the music firms and the audience. A&R agents, record companies, promoters and radio stations were important filters between the artists and the audience. Digitisation and the internet, and especially social networks, have disrupted the role and power of the industries' major companies in terms of their relationship with their final consumers. In the new music economy the importance of physical distribution of music is weakened and internet distribution has exploded. Music artists can now directly link to their audience, without interference of a music label. It has become possible for consumers to share and upload music. The new music industry is thus firstly characterized by high connectivity and little control. Secondly, in the old music economy the content and the medium were inseparable. In the new music economy what is delivered and what can be charged for is no longer the physical product but access to a service. Thirdly the relationship between artists and their audience has changed. Audiences take up a much more active role in sharing, uploading, commenting and remixing music. For artists a music firm maintaining good relations with those active music fans has become of great importance for music firms.

3.2 From value chain to value network in the music industry

Traditional music publishing can be presented as a linear value chain of content creation (produce), production (manufacture), distribution and consumption (see Figure 18).

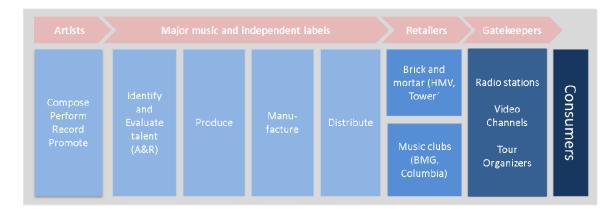


Figure 18: Traditional value chain music industry

Source: Based on Aris & Bughin, 2005.

The supply chain was structured to distribute and sell media content through a simple distribution network, at fixed time windows. However, the rise of digital platforms like the Internet and devices like MP3 players, smart phones and tablets and the resulting change in consumer behaviour, have changed the relations in the value chain.

Traditional business models became insufficient for the digitalized music market. Especially the roles of intermediaries have changed. Functions such as A&R, marketing and promotion have partly been migrated to the internet. Functions like manufacturing and distribution have partly been replaced by digital technologies like home recording, downloading and file sharing (Nguyen-Khac, 2003). It became possible for a whole set of companies – which were traditionally not involved in the music industry – such as ISPs, consumer brands, ICT companies and digital intermediaries for rights clearance or online billing, to play a role in the music industry (OECD, 2005).

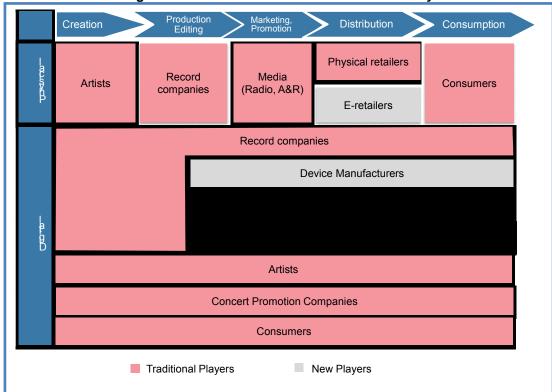


Figure 19: New value chain of the music industry

Source: TNO based on (Capgemini, 2008).

In the new market situation the value chain is expanded with new players and a digital section (see Figure 19). Digitization has introduced new players in the production and distribution of physical recorded music; artists perform more activities in the production and editing of music by themselves and e-retailers (such as Amazon and BOL) entered the market for the distribution of physical recorded music. The digital value chain includes many new players, such as telecom providers and ICT companies, as well as traditional players taking up new roles. Activities such as identifying talent, production and editing, marketing and promotion and distribution are now fulfilled by different players on a range of platforms.

3.2.1 Creation and production

With the availability of relatively cheap and easy to use equipment and software for recording, mixing, mastering, editing and producing music, the creation and production of music has become more efficient and is no longer tied to time and space. The creation and production of music can take now also place anywhere around the world, saving travel expenses and studio rents. By sending music in digitized form over the internet, music can be dubbed and edited in a different place from where it is produced. Though many artists would still want to spend time together in the studio, physical meetings between artists, editors and

studio engineers are no longer a necessity. Internet can create networks between musicians and foster pan-European collaboration, it allows for non-linear work process, which can make it faster and more efficient.

Decreasing costs of producing high quality recordings have lowered the barriers for smaller players to enter the market (IPTS, 2008). It also enables artists to set up 'home-studios'. Many of the more traditional studios have closed (Olivarez-Giles, 2009). Many new small firms offering specialised services have emerged, ranging from studio facilities, business consultants, marketing, distribution, to tour management.

The search for new artists was traditionally a task for the music labels, but now social networks and user-generated content platforms also play a role (Preston & Rogers, 2011). New talents are scouted on social networks and video platforms like YouTube. The Dutch singer Esmee Denters, for instance, posted a few videos of herself on YouTube, singing songs from famous artists. A large amount of YouTube visitors viewed and liked her videos, thereby further promoting her. Record labels became interested and offered her contracts. Finally she signed a contract with Tennman Records, a label owned by Justin Timberlake. The internet has also enlarged the options to release songs online and see how their popularity develops, before embarking on larger endeavours of producing CDs and organizing tours.

Another relatively new way for talent scouting are the highly popular TV song contests, in which amateurs perform songs and out of whose (winning) candidates music companies regularly select new talents to sign recording contracts. Many of these shows also have related websites and pages on social networks which enable fans to follow the candidates and add information on their personalities, their songs and quest to improve their TV performances.

Consumers have become participants in the chain of new content creation, marketing and distribution by mixing songs or distributing music of non-professional artists (OECD, 2005). They contribute to the revenues of recording and publishing companies by shooting a video from a live performance with camera phones, or by performing or streaming songs in making their own content, and uploading this on video- or social networks. The royalties that are generated by watching these videos flow to the music recording and publishing companies who own the rights. This means that user generated content with music forms a new revenue stream for major music right owners, at least from those platforms for user generated content that have secured deals with music companies, which large ones like YouTube and Facebook have done (Preston & Rogers, 2011).

Artists now have access of other funding options apart from receiving advances from music companies tor produce records. One such alternative funding mechanism is crowd funding through the internet. Sellaband for example is a platform that makes it possible for artists to have their albums funded by the public. Meanwhile they can retain complete ownership and enter into deals with labels, management companies or publishers. Since the platform started in 2006, fans invested over \$3,000,000 in individual bands, making it possible for 42 acts or artists to produce their music (Sellaband, 2011). This practice so far has not become a real alternative for most artists and bands though.

3.2.2 Distribution and marketing

The impact of digitization and the internet on the distribution has been especially disruptive; the emergence of P2P networks (enabling piracy) and the launch of numerous online music services, in combination with other factors (see 2.4.2), has caused shifts in sales of physical records. It also brought hundreds of new music distribution services and tools, many of which launched by new ('pure') internet players. This has led to the closure of many specialized

physical music stores and forced the record companies to change their traditional business models.

Already in the nineteen nineties the specialized music stores had lost ground to large store chains such as Wal-Mart, Best Buy and Target, selling CDs at heavy discounts. This has been one of the reasons why many CD retail stores could no longer survive or had to reduce their shelf space and prioritize the most popular CDs. This in turn diminished the variety of titles available in physical stores for consumers. Record companies shifted their main distribution channel from the CD retailer to the large store chains. In some cases artists concluded individual distribution deals with store chains. For instance: The Eagles partnered with Wal-Mart, the largest music retailer, to promote and distribute their music. Wal-Mart promoted The Eagles' latest release in exchange for an exclusive right to sell the physical CD, which became a great success (the second highest album debut of 2007) (Forrester, 2008).

Relatively new players in the distribution of music are ISPs and mobile operators. They are increasingly using music as a means of acquiring new consumers for (mobile or fixed) broadband connections: digital content is used to deliver value-added services on triple-play offers (voice, broadband and TV/Content) to consumers. Non-music consumer brands also use this strategy: increasing consumers' loyalty through music promotions.

For record companies ISPs and mobile operators are attractive partners. They have billing relationships with a wide customer base through which they can offer subscription services: they can bundle the subscription fee into their broadband fee or can let their customers pay separately (IFPI, 2010). ISPs can benefit from this partnership: they can acquire new customers, reduce churn and retain customers. They can also increase their ARPU (average revenue per user) and use it as a brand repositioning tool (IFPI, 2010).

Another development enabled by the internet is that artists no longer solely depend on large music labels for the distribution and promotion of the music. They are able to introduce their music on the online market without interference of the traditional channels and start-up costs for CD-pressing and distribution (OECD, 2005). The reduced costs for distribution and storage provide an increased budget for promotion and marketing, necessary to build a fan-base (Cappemini, 2008).

The marketing of music, another role which was traditionally performed by record companies, increasingly takes place through recommendations in social networks and personalized recommendation tools in online music services. New platforms like blogs, YouTube and social networks such as Facebook provide many tools for discovering, discussing and reviewing new music. This change in music consumption has also made it possible for a whole range of niche artists to gather their own audience. Increasingly the traditional record companies start to use these platforms to promote and market the artists under their contract. However, mass marketing and promotion, necessary to sell records in the mainstream, is still largely only attainable through a major label, even when promoting through electronic platforms, because it requires professional skills and financial resources (Preston & Rogers, 2011).

3.2.3 Consumption

Changing consumption patterns have placed consumers in a different position in the value chain and caused a change in the relationship between record companies and consumers.

The shift from albums to single tracks as the most popular music format change is an expression of the changing relationships between music labels and consumers. Consumers

have more possibilities to select the songs and pay only for the songs they like most, instead of having to buy the full album promoted by the record company (cherry picking).

As a result of the availability of online music, consumers have developed a different perspective of the value they get and the prices they are willing to pay for music. They want to determine their own way of consuming music. However, only 15% of the consumers are willing to go through the effort of searching for their preferred music (Aris & Bughin, 2009). The industry refers to these consumers as 'lean-back-consumers' (IFPI, 2010): they want music at the touch of a button, preferably for free. This attitude could lead to the further emergence of streaming services and online music stores.

Consumers are not used to pay for online content, because of the vast amount of free content online (Anderson, 2004; Preston & Rogers, 2011). They reason that the prices for online music are too high as labels don't have to make the same costs as for the physical product and retail channel. It therefore would make more sense for them to pay lower prices for online music than for music on CD albums (Anderson, 2004). Because users are less willing to pay for music, the average album price dropped from 19 euro for a new release in 1996 to 10 euro for a new album release in 2006 (Capgemini, 2008).

The English rock band Radiohead used this knowledge and left pricing up to consumers. They posted their music in MP3 format on their website for download and had fans decide how much they wanted to pay for tracks. Even though this act was merely promotional and remains a unique event not followed by many other bands, it shows the changing power structures in the music industry: the consumer is gaining more control.

3.3 Impact of digitisation on business and revenue models

Small as well as large companies are struggling with the development of new business models to adapt to the changing market (KEA, 2006). The problems that the music industry has to deal with are partly self-inflicted. They did not manage to create a sustainable business model focused on new media and new technologies and were late to respond adequately to increased internet use and advanced equipment in private homes. But over the past few years the industry has become more open to new business models. In this section, we will discuss some of those evolving business models.

Several new online sales models have developed, starting with the emergence of the 'pay-per-transaction model'. Users pay a separate fee for every piece of content (music album or song) they download or listen to through streaming services. The iTunes store was the first successful service which used this model.

An upcoming revenue model is the *subscription model*, where users pay a periodic flat fee and receive the right to download or listen to content. This fee is sometimes lowered or substituted by an *advertising supported service model*, in which content is free for users, and paid for by advertisers who pay for the users' attention. Many online services can provide advertisers with detailed user information, enabling advertisers to target their advertising to specific user profiles. Sometimes free content is combined with premium features for which the user does pay. The subscription model is especially attractive for heavy users. The purchase barrier of this model is higher than for the pay-per-transaction model (Amberg & Schröder, 2007). Examples of these models are services like Spotify and Last.fm.

For the subscription models to succeed and establish recurrent and increased revenue streams, large uptakes by consumers are needed (OECD, 2005). When looking at the increasing numbers of subscribers for the subscription service Spotify, this might indeed be a potentially successful revenue model. In March 2011 Spotify announced that it had 10 million

subscribers, of which 1 million paying subscribers (Spotify). Last.fm counted 30 million subscribers in 2009, but this was before Last.fm started to charge for their radio services outside the US, UK and Germany (Last.fm, 2009). More recent figures are being withheld by Last.fm.

Table 11 provides an overview of the characteristics of currently available business models for online music.

Table 11: Business models for online music

Model*	Options for users	Relation between		Comments
woder.	Options for users	right holders and service providers	Examples	Comments
Single song downloads	Users download and buy single songs at fixed price per song	Right holders are paid based on fixed wholesale price	iTunes Amazon Spotify	
Membership	Users pay for limited download quota per month or other fixed period	Right holders are paid based on revenue sharing model	eMusic	Relatively predictable revenue streams enable lower prices
Membership 'all- you-can-eat'	Unlimited access to catalogue for monthly fee (or other fixed period). Users get temporary license to listen to music	Different revenue sharing models	Melon, Spotify, Rahpsody	Difficult to establish 'fair' revenue sharing models because one can't distinguish between popular and less popular songs
Ad based model in combination with streaming service	Songs streamed to listeners, listeners unable to directly manipulate playlists, but often ways to personalize playlists are included	Similar to commercial radio	Pandora, LastFM	Familiar model for right holders. But ambiguity on whether to be considered as promotion tool or distribution technology. Ad based models also require standardized and accepted metrics to establish prices for advertisers.
Ad based in combination with on-demand downloads	Users can download songs, in combination with advertisements	Right holders usually demand higher compensations than for services based on playlists	Spotify's freemium model	
Value based pricing model	Users determine the price they are willing to pay for downloads	Artists can directly approach consumers and circumvent record companies	Some individual artists	Revenues very unpredictable, unlikely to become a common model in the industry
Differently priced packages	Users get extra's such as albums, books, signed copies, apps etc. in addition to online access to songs		Björk's 'app album' Biophilia	Targeted at fans
Bundling	Access to music catalogue in combination with other media products, such as mobile phones, iPods or in combination with mobile subscriptions	Revenues go partly to device producers / platform operators, and are less likely to be reinvested in music production	Nokia, Apple (with iPod and iTunes)	Emerging model
Cloud services	Users can download music and store this in a personal box 'in the cloud'	Revenues go partly to platform operators, and are less likely to be reinvested in music production	7digital, iCloud (Apple), Amazon, Google	Emerging model

Source, TNO. *Note: the models are not in all cases mutually exclusive, in some services combinations of different elements are used.

Most companies are still experimenting with different business models and sometimes change their model, in response to changing market circumstances. Some also adopt different model simultaneously and many services have different models in different countries. For instance Last.FM is a free service in the US, UK and Germany. Outside these countries they offer a free 50 tracks trial, after which a subscription is required to listen to it; 3.00 euro per month for non-stop personalised radio. The market is still evolving and it is as yet uncertain which models and which providers will be able to survive in the long run.

3.4 Responses from the legacy music industry

3.4.1 Exploitation of copyrights as core business

The contemporary music industries are increasingly organized around the creation and exploitation of rights (Wikström, 2010; Preston & Rogers, 2011). When recorded music is reused for other purposes, copyright holders receive royalties from the use of recordings and the use of the content contained on them.

3.4.2 Diversification of revenue streams

Music companies increasingly get a foothold in the digital world. Old models mainly focused on physical sales, selling CDs and DVDs through physical music stores and – later - online stores like Amazon. Digitization of music, the move of music consumption to the internet and declining revenues from physical sales has 'forced' record companies to diversify their revenue streams, with for instance increasing revenues from digital downloads, ringtones, the use of music in video games, film, TV and music video channels and artist touring.

Music companies have launched online music services or entered joint ventures, took over services or concluded deals on revenue sharing models with online music services, as has been described in Chapter 2. At the same time they try other, non digital strategies to compensate the loss physical music sales, for instance boosting their sales by adding content like bonus tracks, behind-the-scenes-footage, digital magazines with lyrics, photographs, customizable posters and letters from the band (Capgemini, 2008). This revenue model aims at consumers who are willing to pay a premium for extra content.

An older revenue model with growing importance is live performance, including DJ-ing. Revenues from live performance and DJ-ing have increased considerable in recent years. Live performance is becoming more and more an alternative to compensate losses in music sales. To illustrate this development, in 2009 in the UK more revenues were gained with live performing than with recorded music: 1.54 billion British pounds for live music against 1.35 billion British pounds for recorded music. Figure 20 shows this development for the US market.

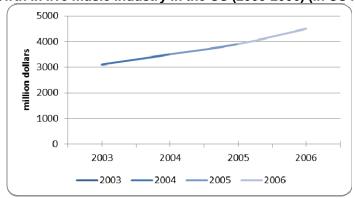


Figure 20: Growth in live music industry in the US (2003-2006) (in US million dollars)

Source: Cap Gemini, 2008.

During the last decade the balance between revenues from the sale of recorded music and live performances has shifted. Ticket prices have – on average - risen, possibly because artists are more dependent on income from live performances, with of course differences in prices between concerts of big and popular artists and niche segments. If live performances were previously considered a way to promote the release of a new record, they now have to be profitable on themselves. This has also led to the stronger position of concert promoters like Live Nation and AEG Live.

3.4.3 360 degree deals

Concert promoters now often offer so called 360 degrees contracts to musicians, including the organisation of tours, licensing, sponsorship deals, merchandising, etc. In this way they take over some of the roles that were previously mainly performed by the record publishing firms. In these type of 360 degree deals the company takes over the business risk in exchange for more control over the creative process, because the artists have to live up to their brand image in order to sustain the sponsorship deals, merchandising etc. This was already the case with most of the earlier deals between record companies and artists, but less extreme.

Music labels have started offering full-service (or 360°) deals to artists as well, covering all parts of the industry: producing, exploiting, promoting by touring and merchandising in one package. Warner Music for example has incorporated artist websites into its operations and is selling music and other services such as fan club descriptions, merchandise and digital music through its own website (PwC and Wilkofsky Gruen Associates, 2010).

This tendency of music labels towards converging into companies that offer artist full-service deals, leads to an increasingly smaller group of bigger companies and makes the market increasingly concentrated (Johansson & Larsson, 2009). This tendency can have a negative impact for the recording artist as well as for independent industry actors. Both are unable to close an agreement outside the exclusive full-service deals of the bigger companies with elaborate networks and services.

Another result from the changing market relations is that music companies reduced their artists' roster and started to concentrate more on their successful artists, expecting quicker results and finishing contracts when artists did not immediately show successful. Talent spotting and talent development are increasingly left to the indies labels, and only once an artist has built a fan base and sold a significant number of records do the major recording companies contract the artist or take over the label.

3.4.4 Republishing strong brands

Wikström (2010) argues that increasingly record firms invest in well established brands or build low-risk brands which are able to survive for decades. An example of the first strategy is to invest in the popular brands of the rock and pop stars of the sixties and seventies. These stars are growing old with their fan base, a generation which, unlike younger generations, is still prepared to pay for music. Some of the highest revenues in royalties come from artists who have already passed away such as Elvis Presley, John Lennon, Tupac Shakur and Bob Marley. Their music is still used in many films, for advertisements and republished in anniversary years or for other occasions. Also working with brands that cover a particular genre (Motown record, Christmas songs, songs from the eighties etc.,) or with artists emerging from the immensely popular, worldwide format Pop Idol have proved to be successful strategies.

3.4.5 Stronger position for artists and consumers?

The digital music economy offers artists opportunities to take more control over the production and distribution process. Where previously artists transferred the ownership of copyrights to the record label, these days contracts where rights are only transferred for a limited period of time, after which the artist is again free to decide on licence deals etc., are becoming more common. To the extent that artists perform more tasks themselves, they need to rely less on record companies and the balance shifts from the record company to the artist. Also many new small firms offering specialised services have emerged, ranging from studio facilities, business consultants, marketing, distribution, to tour management.

Many authors also see increasing opportunities for consumer choice and satisfaction, more diversity in the music on offer and more control for artists to manage their own creative products and careers (Kot, 2009) (Kusek & Leonard, 2005) (Wikström, 2010). The opportunities for niche artists to be heard, have increased as they can more easily produce, record and disseminate their music and also market it through social media, YouTube and other internet channels (Kot, 2009). Others (Preston & Rogers, 2011) however are less optimistic about the increased power for creators and consumers as they argue that the major music companies have managed through heavy lobbying to increase prosecution of piracy and are increasingly taking over the control over digital online channels, by securing licence deals with social networks, video sharing sites, online music services and internet service providers and thereby remain the most powerful players in the business.

3.5 Conclusions

Digitization and the internet have affected the whole value chain, starting from the creation and production phase to distribution, marketing, distribution and consumption. These changes have fundamentally changed the industry, many new players from outside the legacy music industry have entered the market and disrupted existing business models. For a long time sales of physical music has been the dominant and very profitable business model. Digitization and the internet were among the factors that caused a decline in physical music sales, which so far has only partly been replaced by digital sales. Both the traditional music companies as well as many new players are experimenting with online business models, including single sales, subscription models, ad supported models or models in which music subscription services are sold in combination with other services or service bundles, such as mobile broadband, pay-TV or cloud services. New players in these constellations largely depend on the interest and willingness of the record labels to license their music to these new services.

In response to changing market circumstances record companies have developed their own online music services, entered joint ventures or negotiated licenses with online music providers. They have also diversified their activities and managed to increase revenues from performance royalties and live performances, as well as from non-digital activities, including merchandising.

Existing power relationships between the different players in the value chain have shifted. On the one hand music companies try to intensify their control over successful artists by entering 360 deals in which they manage everything from album production, to concerts, merchandising and online presence. On the other hand, digital production equipment and software, internet distribution and marketing through websites, social networks and mailing lists cost much less than used to be the case in the physical world and can in theory be performed independently by artists, without having to rely on the intermediary role of record companies. This strengthens the artist's autonomy and negotiating position vis-à-vis record

companies. But, although there are many examples in which artists have managed to break through existing restrictions and traditional models, overall music companies have by no means become redundant. Their financial means and skills for developing and financing beginning artists and for supporting and managing already established artist, their professional skills, their international business networks, their relationships with copyright collecting societies and other players in the business and last but no least their possession of copyrights on songs and recordings will sustain them as strong and important market players.

Consumers' position, previously only at the end of the value chain, has become stronger and they can now participate in more different phases of the value chain. They have access to more music on more devices than ever before. They can more easily share and recommend music to their friends. They can even contribute to music production by uploading their own songs or by remixing and uploading existing songs. Filesharing on P2P networks gave the impression that music can easily be acquired for free, lessening the willingness to pay. But since reliable and easy-to-use online music services have become, with well stocked catalogues, good search functionalities and added functionalities, more consumers are starting to pay (again) for recorded digital music.

4. Competitiveness of the European music industry

4.1 Introduction

In this chapter, an attempt is made to assess the competitiveness of the EU music industry. Increasing the EU's competitiveness and removing obstacles for online, cross border trade, leading to a stronger and more competitive EU digital single market, are among the main goals of the EU Digital Agenda.

There are various definitions of competitiveness. Porter (2008) defines the competitiveness of a location (a country or a sector) as the productivity that companies located there can achieve. Others also look at the health and growth potential of a sector in terms of value added and labour productivity or at the ability to sell on international markets (Ketel, 2006). By lowering obstacles for internal cross-border trade EU companies can benefit from economies of scale and thereby grow faster and become more competitive vis-à-vis the US and upcoming Asian markets.

Media and content industries in Europe have historically mainly produced for local markets, because of language barriers and the specificity of cultural tastes and values. Within the media and content industries there are however important differences in the level of cross border trade. Newspapers for example have mainly national, regional or local audiences. Music, film and television series however, especially those from the US and the UK, are also export industries and have found international audiences.

The possibility to digitally produce and record music, to make digital copies of music recordings and distribute them through the internet has affected all parts of the music industry's traditional value chain. It has enabled new players to enter the market, especially in the domain of online music services. Some of these new players have become successful (Apple with its iTunes online music store, Spotify with online subscription service), others have difficulties in finding viable and sustainable business models and many new entrants failed to survive in the market. Traditional music firms are slowly adapting their work processes, organisations and business models to adapt to changing markets. It is clear that markets are still in flux, and the positions and relationships between the different players in the value chain or value web have not stabilised. The effects of these changes on the crossborder trade within the EU27 and from the EU27 to other countries outside the EU27, the extent to which internet and digitization could enlarge the single market and whether or not they improve the competitiveness of the EU music industry vis-à-vis the US or Asia are still largely unknown and due to a lack of consistent and comparable data difficult to determine. Based on available data, this report attempts to make a start with analysing some of these developments.

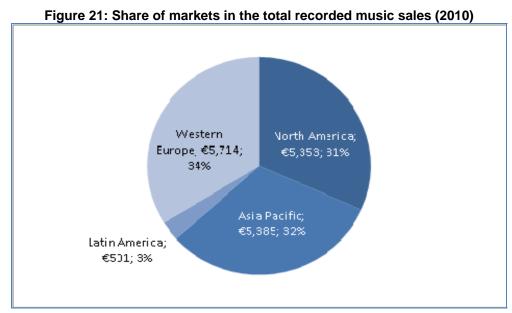
In this chapter, we will use indicators which express the relative strength of the sector in terms music sales and indicators which express the level of cross-border trade. In Section 2.4 we compare market shares and growth figures in music sales with those for the US, and Asia. In Section 4.3 we look at intra and extra EU trade balance figures. Due to the lack of comparable, longitudinal data, we can only provide some indications. Section 4.4 contains the main conclusions of this chapter.

-

¹⁷ In the European Competition Reports (2010), many other indicators of economic health, vitality and growth potential are used as well.

4.2 Turnover and sales

One way to look at the competitiveness of the European music industry is to compare the size of the EU industry with other markets, such as the US and Asian industries.



Source: PWC, 2010.

Figure 21 (same as Figure 7) shows the global market shares of the several regions. The global music market in 2010 was estimated at 16.9 billion euro (PWC, 2010). The Western European (5,714 million euro), North American (5,353 million euro) and Asian Pacific (5,385 million euro) markets are of similar size: they each hold approximately a third of the global market in music sales. The share of the Latin American market is compared to the other markets very small: only 3%.

When looking at physical and digital sales, it shows that the relative size of each segment differs across the regions (see Figure 22):

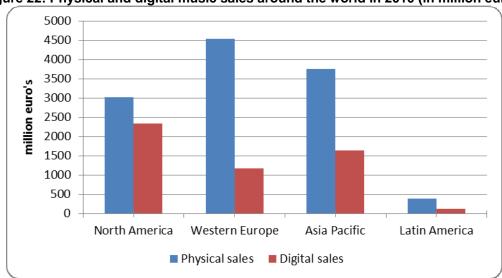


Figure 22: Physical and digital music sales around the world in 2010 (in million euros)

Source: PWC, 2011.

The physical market in Western Europe¹⁸ is traditionally the largest market (approximately 4.5 billion euro) (PwC and Wilkofsky Gruen Associates, 2010), followed by the Asian Pacific¹⁹ market (3.7 billion euro), where Japan is the second largest market worldwide. The North American²⁰ physical market is third (3 billion euro) and the Latin American²¹ physical market is a distant last (384 million euro). While the physical market in North America is third, their digital market is the largest (2.3 billion euro), followed by the Asian Pacific digital market (1.6 billion euro) and the European market at a distant third place (1.2 billion euro). The Latin American digital market is marginal: 117 million euro. The small Latin American market may result from the widespread piracy in many Latin American countries.

The stronger physical market (CD sale) in Europe might have delayed the entrance of digital services in Europe. At the same time the higher prices for music provided by wireless carriers limited the development of a mobile market for music (PwC and Wilkofsky Gruen Associates, 2010). The US remains the largest digital music market. Apple's iPhone penetration is high and it launched the first successful online iTunes music store (Page & Carey, 2010). The quick development and adoption of digital products and services, puts the American music industry ahead of the Asian and European music industry.

The music sector in China is a weak and developing sector, riddled with piracy. However, the industry is benefiting from the shift to the digital world. Almost 76% of China's recorded music revenues come from digital channels. Ringback tones and bundles of ringback tones are very popular in China and account for the bulk of the digital music market. China Mobile is the dominant player in this segment (IFPI RIN, 2011). Very little revenues are trickling back to music labels and artists, though 3G services and new competition from rival carriers could improve the outlook for service providers.²² In a report on stimulating trade between the EU and China, KEA also notes that digital services are advancing rapidly. Legal digital music downloading websites such as Aigo, Top100.cn, A8 or R2G entered joint ventures with the major music companies. They also see that rights management businesses are growing and that China is improving its rights enforcement (KEA, 2011).

In July 2011, the main record companies and China's main search engine Baidu reached an agreement on compensation for linking to copyright protected songs through Baidu's search results, which can be considered as another step into the emergence of a market for legal online music recordings in China. In July 2011, Baidu also signed an agreement for the distribution of digital music through One-Stop China (OSC), a joint venture whose shareholders are three of the leading global record companies: Universal Music, Warner Music, and Sony Music. The majors will license to Baidu their catalogues and upcoming new releases, including Chinese songs (in Mandarin and Cantonese) and international tracks, which can be streamed or downloaded from Baidu's servers. Users can obtain a free membership through the advertising supported social music website ting! (Baidu, 2011).

The live performances sector of the music industry is dominated by American companies with headquarters in Los Angeles. AEG Live and Live Nation are the most powerful concert promoters. These companies primarily own venues in the US, but also dominate the promotion of their superstars for concerts in Europe. Live Nation established itself as the

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam.

²⁰ Canada and the United States.

²¹ Argentina, Brazil, Chile, Colombia, Mexico and Venezuela.

In: www.chinaherald.net/2009/06/profit-chinas-music-industry-stops-at.html

major national promoter in many countries, is gaining control over ticketing and is offering big artists such as Madonna and U2 180- and 360-degree deals (Holt, 2010).

4.3 EU27 internal and external trade in music

The majority of European record companies are SMEs, often focused on the local market (KEA, 2006). Figure 23 shows the origin of the best selling albums on the European market between 2002 and 2010. Although figures are fluctuating over the years, in most years more than 50% of the music finds its origin in Europe itself. Around 30-45% comes from US acts and artists and a small proportion finds it origin outside the US and Europe.

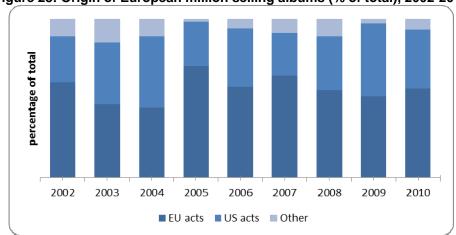


Figure 23: Origin of European million selling albums (% of total), 2002-2010

Source: IFPI RIN, 2011.

According to KEA (2006) local music has a large market share in the country of origin (up to 30 to 50%. Table 12 supports this claim. In France the share of domestic music is largest with 60%. In 2010 in some countries, classical music and compilations were very popular (Belgium, Portugal, Spain, Switzerland and United Kingdom). In two of those countries (Belgium and Switzerland) domestic music has a remarkably low market share.

Table 12: Origin of repertoire (2010)

	Domestic	International	Classical and Compilations
Belgium	10%	60%	30%
Czech Republic	51%	40%	9%
Denmark	57%	40%	3%
Finland	51%	33%	16%
France	60%	32%	8%
Germany	32%	51%	17%
Greece	53%	43%	4%
Italy	52%	41%	7%
Netherlands	26%	68%	6%
Norway	46%	51%	3%
Portugal	35%	38%	27%
Spain	37%	42%	21%
Sweden	49%	51%	0%
Switzerland	15%	65%	20%
United Kingdom	38%	40%	22%

Source: IFPI RIN, 2011.

Trade figures within the EU are an indicator for the presence of a single market. Trade figures from the EU to non-EU countries are an indicator of the relative strength of the EU – or individual countries within the EU – compared to non-EU countries.

Based on Eurostat figures in Table 13 the EU as a whole has a negative growth in its trade balance between 1995 and 2007 of on average -9.5%.

Table 13: Trade balance EU27 1995-2007

	Trade balance 2007	Annual average growth rate, 1995-2007
	million EUR	%
Publishing of sound recordings	18	-9,5
Total EU economy	-71,324	-2.7

Source: Eurostat.

Table 14 shows the internal and external trade figures of music from European countries in 2006. Larger export countries are Germany, France, the Netherlands and the United Kingdom, the same countries which also have the largest music markets in terms of value added, except for Italy and Sweden, which had a large share in the total value added in the European market, but which only have minor exports in music.

Table 14: External trade in CD's for each EU country, 2006 (x 1.000 euro)

	Import			Export		
	Total x1000 Euro's	Intra-EU 27 (%)	Extra-EU 27 (%)	Total x1000 Euro's	Intra-EU 27 (%)	Extra-EU 27 (%)
BE	54,855	98	2	32,911	95	5
BG	528	69	31	477	57	43
CZ	8,584	96	4	29,544	95	5
DK	15,289	81	19	10,671	76	24
DE	225,422	92	8	339,699	76	24
EE	3,172	85	15	2,252	58	42
IE	18,335	98	2	5,652	37	63
EL	8,608	95	5	10,343	92	8
ES	31,737	92	8	19,847	79	21
FR	181,165	92	8	101,321	74	26
IT	58,193	95	5	9,178	77	23
CY	1,800	96	4	502	100	0
LV	1,360	81	19	56	0	100
LT	909	89	11	1,067	86	14
LU	9,284	89	11	6,230	94	6
HU	2,277	92	8	2,212	40	60
MT	1,152	99	1	185	100	0
NL	46,983	68	32	218,583	79	21
AT	68,523	97	3	89,234	92	8
PL	629	96	4	15,112	91	9
PT	11,804	89	11	1,772	62	38
RO	2,311	99	1	164	67	33
SI	4,196	91	9	2,189	49	51
SK	5,576	99	1	1,287	99	1
FI	15,759	96	4	3,380	92	8
SE	45,373	77	23	49,096	38	62
UK	184,153	85	15	150,828	72	28

Source: Eurostat.

Most Member States import and export mainly from and to other EU Member States, except for a few countries, such as Bulgaria, Ireland, EE and Latvia which have a relatively high export share, though not very large in value, to non EU Member States. This might in the case of Latvia and Bulgaria be explained by exports to non-EU neighbour countries.

These findings, concerning the relative small size of intra and extra EU trade in music, are supported by data on the collection of royalties. According to a 2003 EU survey (EU, 2005) collective rights management societies collected 4.9 billion euro of royalties per year. Out of this revenue, 3.8 billion euro was distributed to right holders. Cross-border distribution of royalties within the EU amounted to 322 million euro, whereas distribution to third countries outside the EU amounted to 184 million euro. These figures show how cross border trade had until then been a minor share of the total revenues from royalties²³. More recent figures would be needed to assess to what extent this situation has changed now more legal online music services have become available.

Music is often perceived as the most internationalized form of culture, and especially music from the US and – to a lesser extent – from the UK has become popular around the world. Language differences are less important than in other forms of popular entertainment. Even so, most local music is very popular in the country of origin, but hardly reaches foreign markets (except music from the US) (IPTS, 2008). There are exceptions for some artists touring around and selling their albums in neighbouring countries, or in countries with a common language and cultural background, sometimes artists gain popularity among migrant communities and from there manage to reach wider audiences and some genres – for instance French chansons – have niche audiences across the world. But overall, these remain exceptions.

Increased connectivity could enable small-country artists to find new export audiences. It could also be profitable for large countries like the US, because it offers them increased possibilities to market and sell music across borders. Based on data based on singles charts covering, for example, the weekly top 40 songs, from as many as 22 countries since 1960, Ferreira and Waldfogel (2010) find no evidence of increased US dominance, and substantial and even increased bias towards domestic music. They find no evidence that new communication channels such as MTV and the internet have changed this situation. They also find that shorter distances and sharing a common language promote higher trade volumes between countries but that this situation has remained relatively stable (i.e. also did not grow substantially in the internet age) during the 50 year period.

4.4 Conclusions

Looking at turnover t

Looking at turnover figures, the EU27, the US and Asia have almost equal global market shares. In Europe and Asia the market for physical music sales are still larger than in the US, were digital sales are almost as high as physical sales.

Even though the music market is dominated by a few, largely US owned companies, this does not mean that music originates in the US, as the major music companies also have offices and run labels in many European countries, some of which also produce national music. Figures on the origin of songs show that in many EU countries domestic music has 30-50 percent share and also classical music is popular in some countries. Most popular or second on the list is international music, which in most cases means American or British music and not music from other European countries. In this sense the music market shows some similarities with

Survey available at: http://ec.europa.eu/internal_market/copyright/docs/management/study-collectivemgmt en.pdf(2005)

the film, video and TV market, in which in many countries national productions are most popular, followed by US productions, and in which other EU or non EU productions only have small market shares. Figures on intra en extra EU27 trade show that most EU countries mainly import from and export music to other EU countries.

The European major EMI has recently been taken over by its US/French competitors. A major online player Spotify is based in Europe, but its business prospects rely to a large extent on the licenses it can acquire and the deals it is able to negotiate with the major music companies. However, more important than the question by whom music companies are owned, is where production, distribution, marketing and other facilities are based, how the artists and repertoire are selected and how their output is determined, because this determines the level of economic activities and space for European talents that is available. It would also be interesting to know more about the development of SMEs in the European market and to what extent their growth potential is strengthened through digitization and online distribution, marketing and sales as well as how their trade options and competitiveness are supported by the shift to online music consumption. But reliable and public figures on these types of developments are, as far as we have been able to establish, not available.

5. Policy and regulatory developments

5.1 Introduction

The distribution of digital music on the internet creates new possibilities for music service providers and consumers, as well as for easier cross border trade in music. However, there are still many economic and legal barriers to a fully competitive European single market for online digital music.

The EU Digital Agenda 2020 aims to stimulate a European single market in which digital media and content can freely circulate. In a reflection paper on creating a single market for creative content the European Commission states that it wants to create "a modern, procompetitive, and consumer-friendly legal framework for a genuine Single Market for Creative Content Online". It intends to do this in particular by:

- "- creating a favourable environment in the digital world for creators and right holders, by ensuring appropriate remuneration for their creative works, as well as for a culturally diverse European market;
- encouraging the provision of attractive legal offers to consumers with transparent pricing and terms of use, thereby facilitating users' access to a wide range of content through digital networks anywhere and at any time;
- promoting a level playing field for new business models and innovative solutions for the distribution of creative content." (European Commission, 2009)

Most important legal obstacles to achieve this goal for many creative industry or media and content products and for (digital) music in particular concern copyright and licensing issues. Other obstacles are the lack of interoperability of devices, software and DRM technologies and differences in tax (VAT) regimes.

In this section, some of the major policy challenges for a single European digital music market will be discussed. All of these issues, and especially the European Copyright regulation, are subject to extensive and on-going debate and revisions. A lengthy discussion, which does justice to the complexity of the issues and the various perspectives involved, is beyond the scope of this report. Here we only briefly present some of the major issues at stake. Section 5.2 starts with an overview of the main copyright legislation followed by a discussion on multi-territory licensing in Section 5.3 as one of the proposed ways to stimulate cross border trade. Section 5.4 deals with DRM and interoperability issues, Section 5.5 with copyright infringement and Section 5.6 with a relatively new issue concerning copyrights on user generated content. In Section 5.7 some tax issues are discussed and Section 5.8 summarizes the main conclusions.

5.2 Copyright issues

The most important legislation, which laid the foundations for subsequent international copyright laws, is the Berne Convention from 1886. A core principle of this convention is that authors do not need to register a song, a book or any other copyrighted content for it to be protected by law. The convention also governs 'additional rights' which are for instance the rights of performers and record publishers. Authors possess the moral rights to their works, i.e. they have the right to be recognized as the author and their work should be protected from derogatory treatment. The Berne convention was established in Europe. The USA signed the convention in 1989 and since 1994 it is a mandatory part of general international trade agreements. The World Intellectual Property Organisation's (WIPO) Copyright Treaty from 1996, signed by 183 member states, is one of the most important treaties serving as the basis

for national and regional legislations such as the Digital Millennium Act in the USA and the European Copyright Directive (signed in 1998), which came into force in 2001 and had to be transposed into EU Member States' legislation by the end of 2002. Almost all EU Member States have implemented this Directive in their national legislation.

The EU copyright policies are based on the idea that Member States should uphold a regulatory framework which maintains an environment where artistic creation is ensured, in which copyrights are effectively protected and small and innovative players can compete. The Copyright Directive's objectives were to adapt legislation to the technological developments and to transpose into community law the main obligations following from the treaties adopted by the WIPO. The Copyright Directive also aimed harmonisation across European Member States in order to create more certainty for investors and to enable the growth of legitimate online music services. It mainly dealt with issues such as a common term of copyright protection, standardisation of the fundamental exclusive rights, rental and resale rights, the introduction of an exhaustive list of copyright exceptions of optional character and the implementation of rules regarding technical protection measures such as DRM systems. After the Copyright Directive, the so-called "Enforcement Directive" came into force in 2004. The Enforcement Directive was adopted to reduce the inconsistencies existing in the enforcement means of different Member States. There have been numerous EU Directives and Recommendations since, which also address copyright related issues.²⁴

The implementation of these directives meant that in principle copyright protection was tightened and the options for punishment for violating copyrights increased. However they have not (yet) led to an effective harmonisation of Member States' copyright laws. Traditionally, copyright laws vary considerably between Member States, particularly between common law jurisdictions (Cyprus, Ireland, Malta and the United Kingdom) and civil law countries. And there are still a number of gaps, ambiguities and unbalanced provisions in the Copyright Directive and in other EU directives addressing copyright issues, some of which are discussed in the following sections (see also (DLA Piper, 2009).

Key documents on EU policy and regulation concerning copyrights (and digital music) are for instance:

European Commission (2001). Directive 2001/29 EC of the European Parliament and of the Council of 22
May 2001 on the harmonization of certain aspects of copyright and related rights in the Information
Society, OJL 167/10 22.6.2001.

European Commission (2002). Digital Rights Management. Background, Systems, Assessment. Commission of the European Communities. Brussels, 14.02.2002. SEC(2002).

European Commission (2004a). Directive 2004/48 EC of the European Parliament and of the Council of 29 April of 2004 on the enforcement of intellectual property rights, Corrigendum, OJL195/16, 02.06.2004.

European Commission (2004b). High Level Group on Digital Rights Management Final Report March-July 2004. Available at:
 http://ec.europa.eu/information_society/eeurope/2005/all_about/digital_rights_man/doc/040709_hlg_drm_2
 nd_meeting_final_report.pdf

European Commission (2005a). Decision No 456/2005/EC of the European Parliament and of the Council
of 9 March 2005 establishing a multiannual Community programme to make digital content in Europe more
accessible, usable and exploitable, O J L 79/1, 24.3.2005 60. Available at:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0836:FIN:EN:PDF

[•] European Commission (2005b). Commission Recommendation of 18 October 2005 on collective cross-border management of copyright and related rights for legitimate online music services. OJL276/54, 21.10.2005.

European Commission (2008). Communication on Creative Content Online in the Single Market. Brussels, 03.01.2008. COM(2007) 836 final. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0836:FIN:EN:PDF.

European Commission (2009). Creative Content in a European Digital Single Market: Challenges for the Future - A Reflection Document of DG INFSO and DG MARKT, 22 October 2009. Available at: http://ec.europa.eu/avpolicy/docs/other-actions/col-2009/reflection-paper.pdf.

5.3 Multi-territory licensing

Making music available online is often difficult because different rights (for copying and for making available to the public) are owned by different right holders (authors, composers, performers, record and music publishers) and are laid down in different contracts managed by different collective management organisations. Parties, who want to use music for new businesses, services or products, often need to negotiate the terms of use of a protected work with every right holder and in every territory. This is a time consuming and costly endeavour, which only large firms, able to hire the required judicial and business expertise, can afford. For SMEs setting up online cross border businesses, this is often beyond their means. The principle of territorial exploitation of copyright may be financially interesting for right holders, as it restricts the scope of a licence to one country, allowing them to re-licence the content in other countries and to receive royalties in each separate country. However this practice might be a major obstacle to the development of legitimate EU wide, online music services. The fragmentation of the market can lead to extra costs and thus makes it more difficult for service providers to develop new businesses and for consumers to access content available in other Member States.

The following figures are illustrative of the large amount of players involved in rights clearance. According to a Commission's survey, there were 152 collective rights management societies in the EU (in 2003), acting on behalf of approximately 1.6 million right-holders and managing 4.9 billion euro of royalties per year. Out of this revenue collected, 3.8 billion euro was distributed to right holders. Cross-border distribution of royalties within the EU amounted to 322 million euro, whereas distribution to third countries outside the EU amounted to 184 million euro. These figures show how cross border trade had until then been a minor share of the total revenues from royalties. Of the revenue generated with collective rights management 80% arises from the exploitation of musical works and is generated by the top ten societies that are active in this field.²⁵

Suggested solutions are to make the licensing processes for online dissemination easier, by creating pan European or multi territory licenses, or at least combining the reproduction and performance rights and the licenses of the different right holders (authors, composers, performers, sound recording companies), which are now managed separately, into one license. However one would still need to agree on how to distribute the royalties between these different stakeholders. Creating options for multi-territory licences has so far been successful only for arranging reproduction rights, whereas 'making public' rights are still geographically limited.

An important measure aimed to enable the development of legitimate digital content services, was the 2005 Commission "Recommendation on collective cross-border management of copyright and related rights for legitimate online music services" (European Commission, 2005b). It included, amongst others minimum protection provisions of right holders, which should be incorporated either in contracts or in statutory membership rules in all categories of rights. However the recommendation is non-binding and has not yet resulted in easy ways to take care of multi territorial licensing of music.

Multi-territory exploitation of music could also be supported by more transparency in the market, and thus more clarity for investors in online music businesses. An instrument to

Survey available at: http://ec.europa.eu/internal_market/copyright/docs/management/study-collectivemgmt en.pdf(2005)

achieve this could be to oblige collecting societies to provide access to ownership and licence information in a repository or data base (European Commission, 2009).

A final measure is the European Commission's CISAC (*International Confederation of Societies of Authors and Composers*) decision, which is meant to promote competition and pan-European licensing and to end the practice whereby each national collecting society or collective management organisation (CMO) has the exclusive right to license the world repertoire to commercial users located in their territory (European Commission, 2009). This opens up the possibility for CMOs to operate across borders and offers right holders the choice which CMO they wish to represent their rights across Europe. However, national collecting societies and CISAC have not yet implemented this decision and the discussion is ongoing (Mazziotti, 2011).

5.3.1 Locating (unknown) authors / orphan works

Another obstacle to wider exploitation of music are the problems in locating authors in order to obtain permission for (re) use of works, for instance when the authors of a work are unknown (due to the use of pseudonyms or the anonymity of authors) or when data on the authors are missing (the so called issue of orphan works). These problems are aggravated in the case of multiple authors. With regard to the issue of orphan works the EU has undertaken several initiatives and adopted a proposal for a directive to alleviate the problem, including proposals like establishing sector-specific criteria for diligent search for right holders, the creation of databases for orphan works and the creation of clearance mechanisms to issue licences to use an orphan work. The proposal also establishes the uses that can be made of the orphan works and the conditions for such uses depending on their nature. These measures would make it easier to reuse certain pieces of music in films, TV, games, commercials etc. but also in online music services (European Commission, 2011).

5.3.2 Limitations and exceptions to reproduction rights

Differences in the implementation of the Copyright Directive also arise with regard to the limitations and exceptions to reproduction rights. Member States have significant discretional margin in deciding how to implement the list of limitations and exceptions to the reproduction rights (Articles 5.2. to 5.5 of the Copyright Directive) in national law. This has resulted in substantial differences between Member States in for instance how and in what ways copies for private use, for teaching purposes and in public libraries are allowed and ambiguities in how these exceptions should be implemented online.

5.4 DRM and interoperability

DRM technologies are used by manufacturers, publishers, and copyright holders to control access to content. They determine who can use content and under which conditions. DRM technologies are used by manufacturers of hard- and software and by content owners with the aim of preventing copyright infringements and maintaining control over the artistic product and its revenues.

In the early stages of the emerging online music market, DRM was a controversial and much discussed issue. Apple's iTunes was the first to spread the use of DRM, by building it into downloadable digital music files. DRM was set to limit the number of computers that could play the song and to limit the kinds of portable devices and software programs that could be used to listen to the music. Apple implemented these restrictions to assure that the downloaded files would not be widely redistributed online. Apple needed this assurance in order to acquire the licenses from the record labels to sell music online Apple used to be the single largest provider of DRM enabled digital audio devices and online music services in

Europe, operating its 'FairPlay' DRM solution, which it did not license to third party service providers. This meant that users could not download music from competing music service providers to their Apple computers, iPods and other Apple devices.

Microsoft operated its own DRM solutions which were used by most of the remaining producers of electronic consumer devices (mobile phones, MP3-players etc.). In 2007 Microsoft opened its own online music service Zune. In addition, the smaller players Sony and Real also used their own proprietary DRM formats.

For content owners and providers of digital music who are independent of the main soft- and hardware providers, proprietary DRM solutions and the lack of interoperability form an obstacle to effective service level competition. They have to produce their content in different formats and have to deal with different DRM providers in order to make their content available to all consumers on all devices. For consumers lack of interoperability can also be a problem if they can not easily transfer the music they own or bought to new devices (risk of lock-in). However, an initial positive effect of Apple's content-plus-device strategy, is that is has spurred a fast growth of the online music market. Moreover some of the major music labels have requested strong DRM solutions before they were willing to licence their music to online service providers at all.

The High Level Working Group on DRM in its 2004 report identified interoperability of standards as an important goal for encouraging the growth of services. However, it did not propose any regulatory action and advised to wait and see how markets would develop. In their report on the issues that hamper an effectively competitive market for online content Screen Digest and others (2006) think that most DRM issues will finally be solved by the market. They mention commendable practices such as the cross-industry Coral Consortium, which brings together the technology and entertainment sectors with the goal of creating a common technology framework for content, device, and service providers, regardless of the DRM technologies they use. But because the two main players, Apple and Microsoft, are not members of this Consortium its impact on the market is small.

Some music providers explicitly offer their music DRM free because they want their users to share the music with others in order to become better known and increase opportunities for sale of other, music-related products. Finally, record labels dropped their demands for protection, but instead demanded higher charges for DRM-free music in iTunes, resulting in the changed pricing models. In 2009, all iTunes music became available DRM free.

However, DRM still plays a role in many subscription services which only allow users to play the music they have downloaded while they are subscribed to the service. Afterwards, the music files do no longer play. There are also still different regulations concerning DRM techniques, and service providers would have to take care that they implement these in line with the requirements set by every national legal regime.

An issue of concern in this field is that technical protection methods (TPM), such as DRM are based on contractual requirements which are not subject to copyright regulations and which are thus not subject to the exceptions and restrictions on copyrights. This could lead to a situation that technical protection measures would prevent lawful uses of digital works, such as making copies for private use or educational purposes, while this would not be allowed in the analogue worlds.

5.5 Copyright infringement

The issue that has probably caused most publicity and public debate is how to deal with copyright infringements. Copyright infringements are treated differently under different

jurisdictions (OECD, 2009). What is illegal in one member state can be considered legitimate in another member state. This is the case in particular with copying for private use, the distinction which is made between uploading and downloading copyright protected content, and the parties which can be held responsible for copyright infringements. Also in some Member States copyright infringement is considered a criminal offense whereas in other Member States it is considered a civil offense, which has all sorts of consequences for judicial procedures and punishment levels. An added problem for effective dealing with copyright infringements is that it is often unclear which nation's law is the applicable law and which is the competent court, in for instance copyright infringement cases.

There are opposing views on how to tackle the issue: music industry representatives generally think governments should maintain the current trend of criminalizing unauthorised sharing of protected content. Others think the trend of criminalising individual copyright infringers is counterproductive. The authors of the DLA Piper report (2009) for instance claim that a clear distinction should be made between infringement by individuals and commercial infringements, because measures to fight consumer level infringements are costly, hard to enforce and risk undermining privacy law.

Since the start of large scale copyright infringement of digital music in the late nineteen nineties, the record companies have applied different strategies to counter this phenomenon. They started with the prosecution of providers of content sharing software such as Napster, followed by taking legal action against individuals. Currently they focus more on lobbying for the implementation of stricter legal instruments and enforcement, in combination with informing and educating consumers on piracy and legal alternatives.

In 2009, the France National Assembly approved the Creation and Internet Law, a three step process, also referred to as a graduated-response model. It created a new independent administrative authority, HADOPI, which is responsible for alerting copyright infringers about their legal activity. After two warnings by e-mail and letter, the infringers can be cut off from the internet for one year and receive a 300,000 euro fine or jail term of up to two years for repeat offenders (PwC and Wilkofsky Gruen Associates, 2010; IFPI RIN, 2011). This strategy is also suggested in the UK's Digital Britain Report. According to PwC (2010) early results suggest that the threat of losing their internet connection is a greater deterrent for copyright infringers than other measures tried to date. Other EU countries however do not wish to implement similar measures.

A law in Sweden (based on the European Intellectual Property Rights Enforcement Directive), which became active in April 2009, requires ISPs, when asked, to provide names and addresses of suspected copyright infringers. Since infringers have been informed that their names and addresses could be provided, according to GFK research, 60% of the infringers stopped (GFK in (Werner, 2010).

In the 2010 Pirate Bay case the Swedish Court ruled that this hosting provider was in breach of the Copyright Act. It aided and abetted individuals to illegally copy copyright protected content by enabling them to store, download and share BitTorrent files which enable peer-to-peer exchange of data. Pirate Bay was held liable to copyright infringements and sentenced to imprisonment and the payment of a fine. Following this decision the music industry decided to also prosecute Pirate Bay in Denmark, The Netherlands and Norway.

Whether or not ISPs can be held responsible disclosing information on their customers who use the ISPs networks for copyright infringements is a controversial issue. The music industry demands an active role from the ISPs in addressing piracy, because they have access to the accounts that are used to disseminate copyrighted music. The industry wants ISPs to block

services that offer access to unlicensed content and to address file sharing by individuals on P2P networks. The industry favours the idea of a 'graduated response model'. This involves a system of educational notifications and warnings, culminating in sanctions for those who refuse to stop infringing. These sanctions can include restrictions on the use of their internet services (IFPI, 2011). So far ISPs have been reluctant to cooperate, as this practice might harm their business. They also think it is not their role to inspect the contents of internet traffic, as this would inflict users' right to privacy. Also not all EU Member States have been willing to impose such drastic measures, which risk undermining people's privacy.

An alternative to prosecution of individuals would be some form of blanket licensing structure that will result in payments being made by those network businesses which inadvertently profit from the illegal use of copyright content over their networks (Screen Digest Ltd, 2006).

The European Commission has stated in numerous documents that it encourages the creation of policies and business models that aim at discouraging piracy e.g. through a combination of education and user awareness, making available legal content and balanced DRM measures. Over the past few years actions against copyright infringement have been continuing, while at the same time more legal online music services have been launched, some of which, such as the iTunes store and subscription service Spotify seem to root.

5.6 User-generated content

A relatively recent issue which has gained increasing relevance is the question how to treat User Created Content, in which users (amateurs) create derivative works from copyright protected works without commercial purposes. The phenomenon raises a range of new questions, such as: should these user generated derivative works be included in the list of limitations and exceptions to the Copyright Act? Should IP rights to these derivative works be protected and if so, how? Does this require a change in the Copyright Directive or is no change to existing copyright laws required and can UGC be covered by combining copyright legislation with new systems such as the Creative Commons system or machine-to-machine readable permission such as ACAP (Automated Content Access Protocol, available at www. the-acap.org). Existing laws do not sufficiently take into account the changing and complex roles of consumers in the digital environment and some adaptations might be required to better address the specificities of non-commercial UGC (DLA Piper, 2009; Helberger, Leurdijk, & De Munck, 2010). Recommended solutions have been aimed at facilitating registration of copyrights, creating more transparency regarding contractual agreements or creating a more permissive copyright system.

5.7 VAT and tax issues

A final category of obstacles hampering the growth of European digital content services are tax related issues (Screen Digest Ltd, 2006). Firstly the single price point introduced by the iTunes store in the European market has become a standard of what consumers expect to pay (0.99 cents per track), but this model does not fit the European tax models. In the US no taxes need to be paid over cross border online consumer transactions, whereas in the EU service providers have to allow for taxes to be paid on digital content sales. Because of consumers' expectations to pay a single price this lays the burden of the tax on the service provider, instead of adding it to the wholesale plus margin price and thus passing it on to consumers (assuming that the current single track prices do not have sufficient margins to account for these taxes, which could be disputed, see Section 3.2.3). This makes building a sustainable business difficult for online service providers which cannot compensate their income with

other revenue sources and puts European 'pure internet players' at a disadvantage compared to their US competitors.

VAT levels in Europe vary considerably (between 3 and 25%) and VAT on consumer use of electronic services in the EU is charged in the country of origin if the supplier is established in the EU. This also distorts competition and favours Member States with low tax regimes over countries with higher tax regimes. A solution suggested by the online music providers is to introduce a single harmonized low VAT rate applying to the sale of digital entertainment content.

For independent music services there is also a problem of double taxation of royalties on cross border sales and the lengthy process of their reclamation. Multi territory labels are able to absorb the temporary costs of double taxations, but for the smaller independent providers this is more of a problem.

Finally more general policies to stimulate a single market for electronic commerce are also relevant for online music consumption and sale, such as safe ways to pay for online transactions, adequate levels of consumer protection and safe guarding consumer privacy.

5.8 Conclusions

The music industry is largely built on the exploitation of copyrights on the use of songs and recordings. Both music companies and individual artists benefit from the sales of recorded music and from the royalties paid over the use of songs in recordings, on radio, in films, online music services and other forms of publishing music. Some forms of protection of copyrights as well as new ways to exploit them are therefore crucial to the development of a healthy and sustainable digital music market.

One of the main obstacles to creating a single digital European market is that copyrights are licensed on a per territory basis and copyright legislation among EU Member States varies, even if they have signed the most important international and European copyright treaties and directives.

The EU Digital Agenda therefore aims to remove legal barriers and stimulate cross-border trade in music. Developing multi territory licenses, creating more transparency in copyright ownership through setting up databases, a new way of treating orphan works and harmonizing copyright legislation are among the cornerstones of this policy. Also more harmonization in the legislation and enforcement concerning copyright infringement could help to create such a single European market. Especially for this latter point there is a strong music industry lobby, but it is also still a very controversial issue, as some countries have implemented regulations with strong implications for the responsibilities of ISPs and network operators and for consumers' privacy. Others would therefore want to rely more on further developing innovative online business models, raising consumer awareness and developing alternative copyright regimes.

Other issues to be solved concern the variation in tax regimes and legislation concerning DRM. A relatively new discussion is concerned with the question if user generated content requires some sort of copyright as well.

6. Conclusions

In this final chapter, we will summarize some of the main findings of this study and draw some conclusion with regard to the strengths, weaknesses, opportunities and threats for the European music sector.

6.1 Strengths and weaknesses

The music market is highly concentrated and was dominated by four major music companies, until November 2011, when EMI's recorded music branch was taken over by Vivendi and its music publishing unit by Sony. Worldwide these companies have a 70% market share. They operate worldwide on local markets. In addition to the majors there is a large number of SMEs. Of the majors, EMI was the smallest and the only European company. The other music companies are US, French/US or US/Japanese owned, but have offices in most major European cities and also in Asian and Latin American cities.

Of all music produced, a relatively large share is produced for local markets. The second largest part comes from music from the US. Non-national music from other countries in- and outside Europe only has a small share.

Since the late nineties physical music sales (CDs, DVDs etc.) have been declining rapidly. The losses in physical music sales have so far not been compensated by increasing sales figures for digital music. Even though consumers listen to more music, on more devices than before, and music has become easy to carry around on MP3 players, mobile phones and tablets, consumers' willingness to pay for music seems to have decreased. This is partly due to peer-to-peer, online music sharing and piracy, but also because online the single track format is the dominant format, and users can thus be more selective in the tracks they wish to pay for compared to the time that the album used to be the dominant music format. The business models on which the major music companies relied were thus fundamentally disrupted by digitization and the internet. New players entered the market which tried out new ways of distributing and selling music. The main new online players originally all came from outside the legacy music industry.

Many of the early online music service failed. Apple was the first to break through by attracting paying customers to its iTunes store, with its comprehensible interface, standard pricing and easy synchronisation with Apple devices. The largest electronic store Amazon, which already sold CDs and DVDs, launched online music services soon after. The introduction of subscription models, which is currently taking of, and of which the European firm Spotify profiles as one of the most promising examples, might change the revenue models again. In this model users do not pay for separate songs or albums, but they pay for access to a large music library, which they can access on their computer, or for extra money on other (mobile) devices as well, and for as long as their subscription lasts. The subscription model has a free, advertisement supported variant as well. Spotify so far has not been profitable yet, but the number of subscribers is rising fast. In 2011 Spotify has launched its service in the US market as well and also partnered up with Facebook, a deal which enables both to benefit from each others' user base. Many other music services also entered into deals with Facebook and other social networks. Online radio formats, which compile playlists based on users' profiles, usage patterns and recommendations also adopt subscription and/or advertisement models.

Social networks have become increasingly important as distribution and marketing tools in the music market, and also to build a strong fan base for artists. Another major player in the digital music market, YouTube, predominantly relies on an advertisement based model with its music videos and its online streaming service Tubeify. The major music companies have – slowly - been adopting their strategies to the digital environment, by taking over or launching online music services or by entering joint ventures or concluding license contracts with online music providers. Although there are many different online music providers, some of which are only active in one country, the most popular ones are clearly those which can operate internationally on different markets. This is mainly because these firms are also the ones which can afford to gain licenses for offering the music of the major record labels in their services. Spotify is a prominent European example. But most other major players worldwide, but also on the European market are US companies, such as Amazon, YouTube and Apple.

In order to get a full picture of how the industry is developing, one would need to be able to analyse more comprehensive data in which revenue streams from all relevant sources are compared over time. Unfortunately such data are not easily available. Eurostat data only include the companies with music publishing as their core activity and thus do not take into account data on firms from outside the music industry, which have started to play major roles in this industry. They also do not provide insight into shifts in value added generated by offline or online products and always are some years behind in data collection. Data from trade industry IFPI and consultancies do take some of these new developments into account, but often rely predominantly on sales figures, and pay much less attention to the other revenue streams, such as revenues from live performances, radio play and use of music in films, TV series, games, commercials etc.. It is generally accepted however that revenues from recordings have been declining while revenues from live performances have been increasing.

The live performance and ticketing business is dominated by two US based companies, Live Nation and AEG.

With digital music sales taking over physical music sales, cross border distribution of music has, in theory, become much cheaper and more efficient. The European market however still confronts online music providers with a number of (legal) obstacles to digital online music distribution. These mainly concern the territorial organization of copyrights and copyright collecting organisations and the different national copyright regimes and enforcement policies. Other obstacles are different tax and VAT regimes.

6.2 Opportunities and challenges

The production, distribution and consumption of music have moved for a large part from the physical to the digital domain and from tangible to intangible products. In fact music has changed from a product into an entertainment service. In this process the traditional business model of the music industry imploded. It relied on three levels of intermediaries between artists and consumers: producers, distributors and retailers, and each of these levels has been fundamentally changed. The changes in the market affected all players, but in different ways. In this final section, we will assess the opportunities and challenges for some of the most important players in the value chain.²⁶

The changes resulting from digitization and the internet have brought consumers many benefits in opening up large online catalogues of music and enabling them to listen and share music on many different light weight and versatile devices whenever and wherever they are. The new environment also brought consumers many new possibilities to search for, share,

⁶ Within the limits of the study, we could not analyse the impact of the changes for relevant players in the field.

recommend and remix music. The main challenge for the music industry, both legacy and new players – is to develop music services for which consumers are willing to pay.

The effects of digitization and the internet for the artists have been mixed. Music can now be produced much more easily with the help of digital sound recording and editing techniques. The creation and production of songs and albums has become more flexible and location independent, as music files can be transported through the internet and dubbed, edited and produced in different places. Artists can publish, market and distribute their music through online music platforms, music file sharing networks and social networks. This means that artists can directly reach their consumers, and are less dependent on intermediaries such as music publishers and record companies to produce and distribute their music. But the changes have also led to declining income from sales of recorded music. And not all artists have the skills and time to perform all the tasks that music publishers and record companies perform. Many artists therefore will still rely on the resources and pre-financing options of music firms. At the same time music firms tend to focus increasingly on their successful stars, in attempts to reduce the risks in an already struggling business, which makes it more difficult for beginning artists to sign contracts with record companies.

The changes brought about by digitization and the internet have perhaps been most threatening for the legacy music companies, which saw their revenues declining due to declining CD sales and piracy and which had to face many new competitors for their role in the production, distribution and promotion of music. It fundamentally disrupted the traditional business models of music publishing companies, which relied to a large extent on the sales of physical music products like the CD. However the complete demise of the music industry – as announced in many publications on the industry - does not seem imminent and music companies are regaining some control over the new distribution and marketing channels for music. In order to be successful new online music providers need to be able to distribute the catalogues of the major music companies, as these still own the rights to the most popular artists and records. After a period in which the music companies concentrated on fighting piracy and were reluctant to close deals with online music providers, they have increasingly started to sign contracts with online music providers, entered joint ventures and also have launched their own services. Consumers are getting used to paying for digital music and more recently the market showed an increase in subscription and ad-supported models, or models in which consumers receive a basic service for free and pay extra for premium packages. Changes in the market also induced record companies to increasingly sign on artists with 360 degree deals, which enable them to gain revenues from a number of different sources, like live performances, merchandising and online services. So, despite often being slow to react, the major music seems on its way to reconfigure and reinforce its position in the value network. However, piracy remains a threat for record companies' revenues, and digitization and the internet have lowered market entry barriers, thereby enabling new, smaller, specialized and more efficient companies to take over some of the functions that were previously the exclusive domain of the legacy record companies.

For new, online music providers the challenge lies in attracting sufficient customers and in negotiating and sustaining (favourable) deals for music licenses with the major record companies.

In order to become successful online, music companies and artists will have to invest more in the relationship with their audiences, because brands, interactivity, the ability to share, discuss and remix songs and to communicate with their creators and performers (artists, musicians, producers) as well as with other fans seem to have become an indispensable part of music consumption.

A category of players which has been hit especially hard are the retailers. Many specialised retail stores, which also used to be centres of information and points of contact with customers, are closing and sales shift to online. Many of the functions that the traditional record companies and physical retail stores used to have, are now taken over by third parties; online music service providers and social networks which combine distribution, promotion and recommendation services (based on usage history or on 'others who bought/liked this music also like.....).

Table 15 summarizes the main strengths, weaknesses, opportunities and threats of the European music industry. Some of these are not applicable to all players in the industry alike; what may be an opportunity for new players can be a threat for legacy music companies, and vice versa.

Table 15: Main strengths, weaknesses, opportunities and threats of the European music industry

Strengths	Weaknesses	Opportunities	Threats
Production			
Large variety of national artists and vibrant popular music cultures	Music industry leans towards strong promotion of big stars	Lower costs for production tools New talent scouting and financing options	Uncertainty about who will finance investments in music production
Majors have headquarters or offices in Europe, many SMEs	Majors slow in innovation	Production can be located anywhere, nearness to music centres in London, New York less necessary	
European music market equals US and Asian market in revenues from sales		New Tork less necessary	
Aggregation & distribution			
One of the successful new online distributors	Few national artists and music sold outside country	Lower distribution costs, opens up news (niche markets)	Legacy distribution models through record companies
located in Europe	of origin Music retail shops closing	New distribution and promotion options through links between online music	and retail increasingly under pressure
	down	service providers and social networks, mobile phone operators, device manufacturers	Lowering market barriers may be to the detriment of Europe's competitiveness
		More options for less well known artists to reach (niche) audiences	in a global market
Business models			
A lot of experimentation with new business	Music industry slow to respond to digital	Increasing willingness to pay for digital music	Decrease in overall revenues for music sales
models innovations and changes in business models	More options for contextual services offering new revenue streams	Piracy	
		Development of revenue sharing deals which are beneficial for all stakeholders	
		Involvement of users in (creation and) promotion and distribution of music	

Many authors see increasing opportunities for consumer choice and satisfaction and more control for artists to manage their own creative products and careers (Kot, 2009) (Kusek &

Leonard, 2005) (Wikström, 2010). The opportunities for niche artists to be heard have increased as they can produce, record and disseminate their music and also market it through social media, YouTube and other internet channels (Kot, 2010). A contract with a record company is no longer a prerequisite as many of these tasks can also be fulfilled by skilled amateurs. Others, however, are less optimistic about the increased power for creators and consumers. Preston and Rogers (2011) argue that the major music companies have managed through heavy lobbying to increase prosecution of piracy and are increasingly taking over the control over digital online channels, by securing licence deals with social networks, video sharing sites, online music services and internet service providers. From another, more positive perspective on music companies' roles, music companies are still considered indispensable as intermediaries for spotting and developing talent, producing music albums and marketing these to consumers (Drath, 2011).

The tension between the attempt to protect copyrights and revenues based on the exploitation of copyrights on the one hand and the desire and ability of users to have free access to, share and listen to music will remain. It is clear that in the digital environment business models are in flux and constantly changing. Adapting to these changes is the main challenge for music companies. It is also clear that consumers have got used to being able to share music and to listen to music any time, everywhere and on any device. Music providers will have to take these preferences for flexibility, ease-of-use, into account, if they are to succeed in the digital market and regain consumers' trust.

A relatively new phenomenon, which is likely to become influential in the promotion and distribution of music are the agreements between music services and large social networks such as Facebook. These seem very promising as new models for distribution and promotion of music and for establishing strong fan communities. At the same time they raise concerns about the market power of these players. Facebook has faced severe criticism on its privacy policies, and by linking music services to Facebook profiles, music services become implicated in these strategies as well. However, there are also still competing services available and there is consumer pressure on companies to be more transparent about their privacy and advertising policies. It is still difficult to assess what the longer term outcomes of these processes will be, but close monitoring and more analysis is required into the consequences of these developments for competition and consumers.

In assessing what all these changes mean, it is important to distinguish between the consequences for the legacy music companies and the consequences for the market as a whole. While the business of the first is threatened, the market has opened up to many new players catering for a variety of consumers interests. Firms like Apple, Amazon, Google (YouTube) have become large, significant businesses in the music market and many others are trying to realize a profitable business.

At the same time it is important to take into account what these changes mean for the diversity in music production. Apple's control over content and platform, has led to questions on Apple's control over content and consumers, over its share in the revenues and which share of these revenues will be reinvested in original music creation and production. The largest online music service providers are companies for which the production and distribution of music is not their core activity. They are therefore less likely to invest in talent scouting, talent development, marketing and promotion of artists. This might be compensated by the easier ways in which individual artists can now produce and distribute their music, and by the active role users adopt in promoting music. But a comprehensive assessment is required to analyse longer term developments, in which this perspective is included as well.

References

- Amazon.com. (2011). *Introducing Amazon Cloud Drive*. Retrieved July 2011, from Amazon.com: https://www.amazon.com/clouddrive/learnmore/ref=sa menu acd Irn2
- Amberg, M., & Schröder, M. (2007). E-business models and consumer expectations for digital audio distribution. *Journal of Enterprise Information Management*, 20(3), 291-303.
- Anderson, C. (2004, Oktober). *The Long Tail.* Retrieved april 2011, from Wired, Issue 12.10: http://www.wired.com/wired/archive/12.10/tail.html?pg=1&topic=tail&topic_set=
- AOL. (2011, August 04). AOL Huffington Post Media Group launches HUFFPOST BLACKVOICES. Retrieved September 12, 2011, from AOL Press releases: http://corp.aol.com/2011/08/04/aol-huffington-post-media-group-launches-huffpost-blackvoices
- Apple. (2010, February). *10 Billion Song Countdown*. Retrieved 2011, from Apple iTunes: http://www.apple.com/itunes/10-billion-song-countdown/
- Apple. (2011, June 6). *Apple iCloud: The new way to store and access your content*. Retrieved July 2011, from Apple.com: http://www.apple.com/icloud/
- Aris, A., & Bughin, J. (2005). *Managing Media Companies: Harnessing Creative Value Book Description*. John Wiley & Sons.
- Aris, A., & Bughin, J. (2009). *Managing Media Companies: Harnessing Creative Value, 2nd edition.* Chichester, West Sussex: John Wiley & Sons Ltd.
- Baidu. (2011, July 19). *Baidu Launches Landmark Licensed Music Service*. Retrieved Otober 12, 2011, from http://ir.baidu.com/phoenix.zhtml?c=188488&p=irol-newsArticle&ID=1586272
- Berkamn Centre for Internet and Society. (2005, January). Copyright and Digital Media in a Post-Napster World: International Supplement.
- Bertoni, S. (2011, October 4). *Sean Parker And Daniel Ek's Plan To Save Music.* Retrieved October 2011, from Forbes: http://www.forbes.com/sites/stevenbertoni/2011/10/04/sean-parker-and-daniel-eks-plan-to-save-music
- Bradshaw, T. (2011, May 4). *Spotify's slow-burn challenge to iTunes*. Retrieved October 2011, from Financial Times Blogs Tech Hub: http://blogs.ft.com/fttechhub/2011/05/spotify-ipod/#axzz1ajplicqj
- Bradshaw, T. (2011b, November 23). *Spotify adds 500,000 new subscribers*. Retrieved December 7, 2011, from Financial Times: http://www.ft.com/intl/cms/s/0/da038766-15fa-11e1-b4b1-00144feabdc0.html#axzz1frYxwQcY
- Buskirk, E. V. (2010, June 18). *EMI Evolves Along With Music Industry Changes*. Retrieved September 13, 2011, from Wired: http://www.wired.com/epicenter/2010/06/music-revolution-forces-major-label-emi-to-evolve/2/
- Buskirk, E. v. (2011, February 2). Free music can pay as well as paid music, YouTube says. Retrieved October 15, 2011, from www.wired.com: http://www.wired.com/epicenter/2011/02/free-music-can-pay/all/1
- Cammaerts, B., & Bingchun, M. (2011, March). Creative Destruction and Copyright Protection: Regulatory Responses to File-sharing. *LSE Media Policy Project: Media Policy Brief 1*.
- Capgemini. (2008). Music labels: Striking the Right Chord for Stimulating Revenues.
- Clarck, N. (2011, february 28). *Mucis labels making 'millions' from YouTube*. Retrieved May 2011, from Independent.co.uk: http://www.independent.co.uk/news/business/news/music-labels-making-millions-from-youtube-2227693.html
- CNET. (2011, June 2). *Apple Signs Universal Music to iCloud*. Retrieved July 2011, from CNET News: http://news.cnet.com/8301-31001_3-20068366-261/apple-signs-universal-music-to-icloud/
- comScore. (2010, September 14). *European Smartphone Market Grows 41 Percent in Past Year*. Retrieved July 2011, from comScore:
 - http://www.comscore.com/Press_Events/Press_Releases/2010/9/European_Smartphone_Market_ Grows_41_Percent_in_Past_Year
- Constine, J. (2011, September 26). Spotify Gains 1 Million New Facebook Users Following f8.

 Retrieved October 2011, from Inside Facebook: http://www.insidefacebook.com/2011/09/26/spotifygains-million-f8/
- Cooper, M. (2008). Round #1 of the digital intellectual property wars. Economic fundamentals, not piracy, explain how consumers and artists won in the music sector. *Telecommunications policy research conference*.
- Department of Culture, Media and Sport. (2001). *Creative Industries Mapping Document.* Retrieved 2011, from The National Archives:
 - http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/reference_library/publications/4632.aspx

- DLA Piper. (2009). Copyright and digital content. EU study on LEgal analysis of a Single Market for the Information Society. New rules for a new Age? Study commissioned by the European Commission's of Information Society and Media Directorate-General. London: DLA Piper.
- Dransfield, L. (2007, July 18). *A New Tune for EMI*. Retrieved September 13, 2011, from The Independent: http://www.independent.co.uk/news/business/analysis-and-features/a-new-tune-for-emi-457847.html
- Drath, S. (2011, May 31). Address to the first Media and Content Industries workshop at IPTS, Seville on the music industry. Retrieved October 15, 2011, from http://is.jrc.ec.europa.eu/pages/ISG/MCI.html
- Dubosson-Torbay, M., Pigneur, Y., & Usunier, J.-C. (2004). Business Models for Music Distribution after the P2P Revolution. In J. Delag, P. Nesi, & K. NG, *Proceedings of the Fourth International Conference on Web Delivering Music* (pp. 172-179). Los Alamitos: IEEE Computer Society.
- Edgecliffe-Johson, A., & Davoudi, S. (2011, November 11). *Citigroup agrees sale of EMI for £4bn.*Retrieved December 8, 2011, from Financial Times:
 http://link.ft.com/r/CTBPCC/JE37D3/6VAWTL/U1TGZE/AMY03J/AZ/h?a1=2011&a2=11&a3=11
- Ehrlich, B. (2011, March 1). *MTV & Rhapsody Offering Consumers 60 Days of Free Music.* Retrieved September 2011, from Mashable Business: http://mashable.com/2011/03/01/mtv-rhapsody-free-music/
- EMI. (2010, June 18). *EMI to repostion itself as a comprehensive Rights Management Company serving artists and songwriters worldwide*. Retrieved September 2011, 2011, from EMI Music: http://www.emimusic.com/news/2010/emi-to-reposition-itself-as-a-comprehensive-rights-management-company-serving-artists-and-songwriters-worldwide/
- EMI. (2011, June 20). *EMI Group to explore strategic alternatives*. Retrieved September 13, 2011, from EMI: http://www.emimusic.com/news/2011/emi-group-to-explore-strategic-alternatives/
- EU Chorus Project. (2009, December). *Cross disciplinary challenges and recommendations on multimedia search engines. IST 045480.* Retrieved September 22, 2011, from www.needocs.com: http://www.needocs.com/document/etudes-de-marche-secteurs-nouvelles-technologies-recommendations-regarding-the-future-of-multimedia-search-engines,1542
- European Commission. (2004b, March-July). *High Level Group on Digital Rights Management Final Report.* Retrieved August 2011, from http://ec.europa.eu/information_society/eeurope/2005/all_about/digital_rights_man/doc/040709_hlg drm 2nd meeting final report.pdf
- European Commission. (2005b). Commission Recommendation of 18 October 2005 on collective cross-broder management of copyright and related rights for legitimate online music services. OJL276/54, 21.10.2005.
- European Commission. (2009, October 22). Creative Content in a European Digital Single Market: Challenges for the Future A Reflection Document of DG INFSO and DG MARKT. Retrieved September 4, 2011, from ec.europa.eu:
 - http://ec.europa.eu/avpolicy/docs/other_actions/col_2009/reflection
- European Commission. (2010, November 30). *Antitrust: Commission probes allegations of antitrust violations by Google IP/10/1624*. Retrieved September 22, 2011, from Europa Press Releases: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1624
- European Commission. (2010, October 28). European Competitiveness Report 2010. (COM(2010) 614) (SEC(2010) 1272. Retrieved August 8, 2011, from European Commission.
- European Commission. (2011, May 25). Proposal for a Directive of the European Parliament and of the Council on certain permitted uses of orphan works COM(2011) 289 final. 2011/0136 (COD). Retrieved October 16, 2011, from http://ec.europa.eu/internal_market/copyright/orphan_works_en.htm
- Evolver.fm. (2011, February 2). Free Music Can Pay As Well As PAud Music, Says YouTube. Retrieved May 2011, from Evolver.fm: http://evolver.fm/2011/02/02/free-music-pays-as-well-as-paid-music-says-youtube/
- Ferreira, F., & Waldfogel, J. (2010). Pop internationalism. has half a century of world music trade displaced local culture? Working paper 15964. Cambdige MA: National Bureau of Economic Research.
- Forrester. (2008). The end of the music industry as we know it. Forrester Reasearch Inc.
- Garofalo, R. (1999). From Music Publishing to MP3: Music and Industry in the Twentieth Century. *American Music, 17*(3), 318-354.

- Gelles, D. (2011, November 30). *Spotify opens platform to outside developers*. Retrieved December 7, 2011, from Financial Times: http://www.ft.com/intl/cms/s/0/c4945f2e-1b89-11e1-8b11-00144feabdc0.html#axzz1frYxwQcY
- Google. (2011). *Google Music Beta*. Retrieved July 2011, from Google: http://music.google.com/about/ Grueskin, B., Seave, A., & Graves, L. (2011). *The story so far. What we know about the business of digital journalism.* Retrieved May 10, 2011, from http://cjrarchive.org/img/posts/report/The Story So Far.pdf
- Grueskin, B., Seave, A., & Graves, L. (2011, May). The story so far. What we know about the business of digital journalism.
- Heald, E. (2009, 14 January). *DOING MORE WITH LESS: Nailing the new media business model at the Huffington Post.* Retrieved September 12, 2011, from Editorsweblog.org: http://www.editorsweblog.org/analysis/2009/01/doing more with less nailing the new med.php
- Helberger, N., Leurdijk, A., & De Munck, S. (2010). User generated diversity: some reflections on how to improve the quality of amateur productions. *Communications & Strategies*, 77(1), 55-77.
- Henriksson, T. (2011, JuLY 12). *Huffington Post suspends a writer for over-aggregation*. Retrieved September 12, 2011, from editorsblog.org:
- http://www.editorsweblog.org/web_20/2011/07/huffington_post_suspends_a_writer_for_ov.php Hesmondhalgh, D. (2007). *The Cultural Industries*. London: Sage Publications Ltd.
- Holland Trade. (2010). *Music industry: Fact sheet*. Retrieved July 2011, from Holland Trade: http://www.hollandtrade.com/sector-information/music/?bstnum=1329
- Holm, H. (2010, October 19). *Center for Public Integrity absorbs Huffington Post Investigative Fund.*Retrieved September 12, 2011, from Editorsweblog.org:
 http://www.editorsweblog.org/newsrooms_and_journalism/2010/10/two_companies_become_one_reports the new.php
- Holt, F. (2010). The economy of live music in the digital age. *European Journal of Cultural Studies*(13(2)), 243-261.
- Hull, G., Hutchinson, T., & Strasser, R. (2011). *The music business and recording industry* (Vol. third edition). New York: Routledge.
- IFPI. (2010). Digital Music Report: Music how, when, where you want it.
- IFPI. (2011). Digital Music Report 2011: Music at the touch of a button.
- IFPI RIN. (2011). Recording Industry in Numbers.
- IPR2. (2011). Mapping the Cultural and Ceative Sectors: in the EU and China. Brussel: KEA.
- IPTS. (2008). The Future Evolution of the Creative Content three discussion papers. Luxembourg: EC/JRC.
- Johansson, D., & Larsson, M. (2009, december). *The Swedish Music Industry in Graphs: Economic Development Report 2000 2008.* Retrieved april 2011, from Trendmaze: http://www.trendmaze.com/media/1038/swedish music industry 2000-2008.pdf
- KEA. (2006). The economy of culture in Europe.
- KEA. (2011). . Mapping the Cultural and Creative Sectors in the EU and China: A Working Paper in support to the development of an EU-China Cultural and Creative Industries' (CCIs) platform. Brussels: KEA.
- Ketel, C. H. (2006). Michael Porter's Competitiveness Framework Recent Learnings and New Research Priorities. *Journal of Industry, Competition and Trade, 6*, 115-136.
- Kot. (2009). *Ripped. How the wired generation revolutionized music.* New York, London, Toronto, Sydney: Scribner.
- Kravets, D. (2007, September 25). *Like Amazon's DRM-Free Music Downloads? Thank Apple.* Retrieved October 12, 2011, from www.wired.com:
 - http://www.wired.com/entertainment/music/news/2007/09/drm_part_one?currentPage=all
- Kusek, G., & Leonard, D. (2005). *The Future of Music. Manifesto for the digital music revolution.*Boston: Berklee Press.
- Last.fm. (2009, 03 24). Last HQ. Retrieved 04 28, 2011, from Last.fm the Blog: http://blog.last.fm/2009/03/24/lastfm-radio-announcement
- Leichtman Research Group. (2011). *Broadband access and services in the home, 25 July 2011.* Durham, US: Leichtman Research Group.
- Mazziotti, G. (2011, December). *The politics of European online music rights*. Retrieved December 20, 2011, from Berklee College of Music The Music Business Journal: http://www.thembj.org/2011/12/the-politics-of-european-online-music-rights/

- Music Ally. (2011a, August 18). *Exclusive: Spotify subscriptions surged to 1.5m after free service restrictions*. Retrieved October 2011, from Music Ally:
 - http://musically.com/blog/2011/08/18/exclusive-spotify-subscriptions-surged-to-1-5m-after-free-service-restrictions/
- Music Ally. (2011b, September 21). *Spotify now has 2m paying subscribers*. Retrieved October 2011, from Music Ally: http://musically.com/blog/2011/09/21/spotify-now-has-2m-paying-subscribers/
- Music Ally. (2011c, October 8). Exclusive: Spotify Ltd's 2010 financials: £63.2m revenues but £26.5m net loss. Retrieved October 2011, from Music Ally: http://musically.com/blog/2011/10/08/exclusive-spotify-2010-financials/
- *Music Industry Careers*. (2011). Retrieved July 2011, from About Music Careers: http://musicians.about.com/
- MySpace. (n.d.). *Factsheet*. Retrieved 05 2011, from MySpace: http://www.myspace.com/pressroom/fact-sheet/
- New York Post. (2011, June 3). *Apple pays music bigs \$100M+ for iCloud service*. Retrieved July 2011, from NYpost.com:
 - http://www.nypost.com/p/news/business/apple_pays_music_bigs_OcxlGqT1E0P5P9vzosxtyK
- Nguyen-Khac, T. (2003). ITS Conference. *The Music Industry in a Dilemma: How New Technologies Can Turn an Industry Upside Down.* Helsinki.
- Nielsen Music. (2011). The hyper fragmented world of music. Marketing considerations and revenue maximisation. Midem.
- OECD. (2005). Digital Broadband Content: Music.
- OECD. (2009). Piracy of Digital Content.
- Olson, P. (2011, September 28). Spotify tries to soothe angry users over Facebook conditions. Retrieved October 2011, from Forbes: http://www.forbes.com/sites/parmyolson/2011/09/28/spotify-tries-to-soothe-angry-users-over-facebook-conditions/
- Page, W., & Carey, C. (2010). Adding up the UK music industry for 2009. *PRS for Music: Economic Insight*(20).
- Palmer, M. (2011, October 10). *Licensing costs fuel losses at Spotify*. Retrieved October 2011, from Financial Times: http://www.ft.com/intl/cms/s/2/b89d97ea-f365-11e0-b98c-00144feab49a.html#axzz1ajmVmz80
- Peters, J. W. (2011, April 12). *Huffington Post Is Target of Suit on Behalf of Bloggers*. Retrieved September 12, 2011, from The New York Times: http://mediadecoder.blogs.nytimes.com/2011/04/12/huffington-post-is-target-of-suit-on-behalf-of-bloggers/
- Peters, J. W., & Kopytoff, V. G. (2011, February 07). *Betting on News, AOL Is Buying The Huffington Post*. Retrieved September 12, 2011, from The New York Times: http://www.nytimes.com/2011/02/07/business/media/07aol.html? r=4&ref=technology
- PEW Internet. (2009, June). *The State of Music Online: Ten Years After Napster.* Retrieved 2011, from PEW Internet: http://pewinternet.org/Reports/2009/9-The-State-of-Music-Online-Ten-Years-After-Napster.aspx
- Pham, A. (2011, June 20). *Citigroup puts EMI Group up for auction*. Retrieved September 13, 2011, from Los Angeles Times: http://articles.latimes.com/2011/jun/20/business/la-fi-0621-ct-emi-20110622
- Porter, M. (2008). *On competition. Updated and expanded edition.* Boston: Harvard Business Press. Preston, P., & Rogers, J. (2011). EuroCPR. Online Content: policy and regulation for a global market. *Social Networks, legal innovations and the 'new' music industry.* Belgium: Ghent.
- Pulley, B. (2011, June 23). *AOL's Huffington Post Expands Local News Ahead of Campaign*. Retrieved September 12, 2011, from Bloomberg: http://www.bloomberg.com/news/2011-06-23/aol-s-huffington-post-vies-for-major-role-in-2012-presidential-campaign.html
- PwC. (2011). Global Entertainment Outlook 2011-2015. PriceWaterhouseCoopers.
- PwC and Wilkofsky Gruen Associates. (2010). *Global Entertainment and Media Outlook: 2010 2014*. PriceWaterhouseCoopers.
- Quantcast. (2011, August). *Huffington Post*. Retrieved August 15, 2011, from Quantcast: http://www.quantcast.com/huffingtonpost.com
- Reuters. (2011, January 6). *Today In Music: Sales down in US and UK in 2010, digital barely up.* Retrieved October 2011, from Reuters: http://blogs.reuters.com/mediafile/2011/01/06/today-in-music-sales-down-in-us-and-uk-in-2010-digital-barely-up/

- Rijsmandel, P. (2011, August 15). *Spotify in the US a review: Is it a Pandora & last.fm killer?*Retrieved September 2011, from Radio Surviver: http://www.radiosurvivor.com/2011/08/15/spotify-in-the-us-a-review-is-it-a-pandora-last-fm-killer/
- Rob, R., & Waldfogel, J. (2004). Piracy on the high C's: music downloading, sales displacement, and social welfare in a sample of college students. Cambridge: NBER. Working paper 10874.
- Robertson, M. (2011, December 11). Why Spotify can never be profitable: The secret demands of record labels. Retrieved December 13, 2011, from GigaOm: http://gigaom.com/2011/12/11/why-spotify-can-never-be-profitable-the-secret-demands-of-record-labels/
- Rutten, P. (1996). Global sounds and local brews Musical developments and music industry in Europe. In P. Rutten, *Music, culture and society in Europe. Part II of: Music in Europe* (pp. 64-76). Brussels: European Music Office.
- Screen Digest Ltd, C. H. (2006).) Interactive content and convergence: implications for the information society. Report commissioned by the European Commission, DG Information Society and Media. London: Screen Digest.
- Sellaband. (2011). Retrieved June 2011, from Sellaband: https://www.sellaband.com/en/pages/about us
- Silver, N. (2012, February 5). Five Thiry Eight The Economics of Blogging and The Huffington Post. Retrieved Augsut 15, 2011, from The New York Times: http://fivethirtyeight.blogs.nytimes.com/2011/02/12/the-economics-of-blogging-and-the-huffington-post/
- Spotify. (2011, November 23). Spotify reaches 2.5 million paying subscribers. Retrieved December 7, 2011, from Spotify: http://www.spotify.com/us/blog/archives/2011/11/23/spotify-reaches-two-and-a-half-million-paying-subscribers/
- Spotify. (2011a, May 4). *Spotify says hello to the iPod.* Retrieved May 2011, from Spotify: http://www.spotify.com/nl/about-us/press/spotify-says-hello-to-the-ipod/
- Spotify. (2011b, July 14). *Hello America. Spotify here.* Retrieved October 2011, from Spotify: http://www.spotify.com/nl/about-us/press/hello-america-spotify-here/
- Spotify. (2011c). *Background info.* Retrieved October 2011, from Spotify: http://www.spotify.com/nl/about-us/press/background-info/
- Spotify. (2011d). *Labels and artists*. Retrieved October 2011, from Spotify: http://www.spotify.com/nl/work-with-us/labels-and-artists/
- Spotify. (2011e). *Artist Page.* Retrieved October 2011, from Spotify: http://www.spotify.com/nl/work-with-us/labels-and-artists/artist-page/
- Spotify. (2011f). *Spotify Background information*. Retrieved April 28, 2011, from Spotify: http://www.spotify.com
- Sweeney, M. (2011, May 4). *AOL's Huffington Post takeover lifts display ad revenue*. Retrieved August 15, 2011, from The Guardian:
- http://www.guardian.co.uk/technology/2011/may/04/huffington-post-aol-display-ad-revenue Tera Consultants. (2010). *Building a digital economy.* Tera.
- The Economist. (2010, June 18). *I kissed a Lawyer. The music business and EMI's shake-up.*Retrieved September 13, 2011, from The Economist online:
 http://www.economist.com/blogs/newsbook/2010/06/music_business_and_emi%E2%80%99s_sha
- Tiny Mix Tapes. (2010, February). *Five problems with the IFPI digital music report*. Retrieved May 2011, from Tiny Mix Tapes: http://www.tinymixtapes.com/features/five-problems-ifpi-digital-music-report
- TNO. (2009). Ups and Downs. Delft: TNO.
- Tsukayama, H. (2011, November 18). Spotify, other streaming services lose more than 200 labels. Retrieved December 6, 2011, from The Washington Post: http://www.washingtonpost.com/business/technology/spotify-other-streaming-services-lose-more-than-200-labels/2011/11/18/gIQA1i7KZN story.html
- Van Buskirk, E. (2011, August 31). *Here Come The Spotify Apps!* Retrieved October 2011, from Wired: http://www.wired.com/epicenter/2011/08/here-come-the-spotify-apps/
- Vogel, H. (2011). *Entertainment Industry Economics. A guide for financial analysis, 8th edition.* New York: Cambridge University Press.
- Waters, R. (2011, June 6). *Apple: iCloud and more.* Retrieved October 2011, from Financial Times Blogs Tech Hub: http://blogs.ft.com/fttechhub/2011/06/apple-icloud-and-more/#axzz1ajplicqj
- Werner, L. (2010, August). *Good news from Sweden*. Retrieved December 15, 2011, from IFPI: http://www.ifpi.org/content/section_views/view037.html

Statistical, Ecosystems and Competitiveness Analysis of the Media and Content Industries

Wikström, P. (2010). *The Music Industry. Music in the Cloud. Digital Media and Society Series.* Cambridge: Polity Press.

Zenith Optimedia. (2009). *Advertising Expenditure Forecasts*. Retrieved May 20, 2011, from Zenith Optimedia:

http://www.zenithoptimedia.nl/index.php?option=com_content&task=view&id=53&Itemid=67

Annex A: Company Case Study - Spotify

Company history

Spotify was founded in 2006, by Daniek Ek and Martin Lorentzon and launched for public access in October 2008 (Spotify, 2011c). Spotify is available in seven European countries and in the United States. The service in Europe is available in eight European countries (Sweden, Norway, Finland, Denmark, UK, France, Spain and the Netherlands). Spotify launched its platform in July 2011 in the USA (Spotify, 2011b). The company's headquarters are in the UK with offices in Stockholm, Paris, Oslo, Madrid, Amsterdam and New York. Spotify has currently 300 employees.

Spotify is an on-demand service for streaming music. The core of the service is a lightweight software application, which functions as a content platform. The service offers music from major and independent record labels including Sony, EMI, Warner Music Group and Universal. The business model relies on consumers having access to content, rather than own the music. As soon as the user signs off, the content is no longer accessible.

The Spotify application can be downloaded for all major operating systems, including Windows, Mac OSX, iOS and Android. Users can download the free application and log in to the service by signing up for a free or a paid subscription.

The consumer acquisition strategy was based on invitation. This is a well known strategy often used by Google for introducing new services. Until September 2011, users could freely sign-up for the service. Recently Spotify partnered with Facebook: now new sign-ups have to be a member of Facebook. According to Spotify, this Facebook-registration is required to give users a more "seamless experience". The songs people are listening to are now automatically published on their Facebook wall, showing their friends what they are listening to and which service they are using (the Facebook notification option can be turned off in the Spotify player) (Olson, 2011).

The integration with Facebook led to a rise of active users, but also caused criticism from users who do not want to be forced into using Facebook, amongst other considerations because of privacy reasons.

Spotify currently offers over 15 million tracks (Spotify, 2011c), including music from the four major labels and independent label representatives Merlin and the Orchard (Spotify, 2011d). Independent artists can also upload their music onto Spotify. They can make a standard agreement with artist-aggregators such as Record Union, CDBaby, Ditto Music and Zimbalam to upload their content onto Spotify or other digital services such 7digital, iTunes and Amazon (Spotify, 2011e). This possibility to distribute music onto Spotify, offers individual artists direct access to their public, without interference of the large music labels.

In November 2011, dance music distributor ST Holdings pulled back approximately 200 labels from Spotify, because a study from NDP Group found that having access to tracks has, in some cases, decreased consumers' desire to own the music. ST Holdings stated that their labels do not want their music on streaming services such as Spotify, because "they provide poor revenue and have a detrimental effect on sales. Add to that the feeling their music loses its specialness by its exploitation as a low value or free commodity". Spotify replied to have already convinced millions of consumers to pay for music again, to move away from downloading illegally and therefore generate real revenue for the music business. Over the last three years, Spotify generated \$150 million of revenue to rights holders (Tsukayama, 2011).

Current position of Spotify

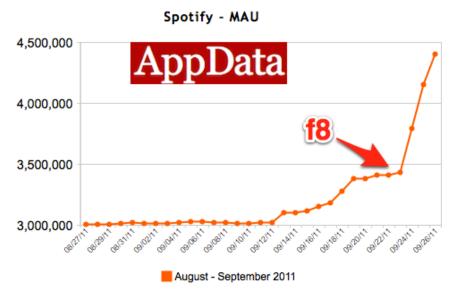
Spotify is emerging as a new, promising player in the market for digital audio. Competition in the digital music market is fierce, but many digital music services have yet to become profitable (Ehrlich, 2011). Among Spotify's competitors are: musicmonster.fm, Rdio, Deezer, Simfy, Pandora Media, Last.FM, Grooveshark, SoundCloud and Rhapsody. The service differs from other popular music services like Pandora and Last.FM by permitting users to actually select the specific artists and songs they wish to hear, rather than only relying on the algorithm that pre-selects the songs (Rijsmandel, 2011) or where users have to buy the music first.

In May 2011, Spotify introduced restrictions to its free service: listening time is limited to 10 hours a month and individual tracks can only be played five times. This change is due to the demands of the major labels, who wanted to see an uptake in the company's conversion rate of free to paid users (Music Ally, 2011a).

These restrictions resulted in the loss of 1.6 million free users between March and June, but resulted in the same period in the gain of 520,000 paying subscribers. By June, Spotify had 3.13 million free users and 1.54 million paying subscribers (32.9% of its 4.67 million active users). Of these subscribers, 1.23 millions users paid for the Premium service and 303,000 users paid for the Unlimited service (Music Ally, 2011a).

After the introduction of the Spotify-Facebook partnership at the f8 conference (Facebook developers conference on 22 September 2011), the numbers of users grew with one million new users a month (see Figure 24) up to approximately 4.5 million free subscribers. The day before the conference, Spotify revealed that the streaming service had two million paying subscribers (Music Ally, 2011b). By November 2011, Spotify reached 2.5 million paying subscribers (Spotify, 2011).

Figure 24: Number of free subscribers for Spotify's streaming service in July and Augusts 2011 (worldwide).



Source: AppData for Inside Facebook (Constine, 2011).

Business and revenue models

Users can register either for free accounts supported by visual and radio-style advertising or for paid subscriptions without ads and with a range of extra features such as higher bit rate streams and offline access to music. A paid "Premium" subscription is required to use Spotify on mobile devices.

Table 16: Type and price of subscription models for Spotify

Subscription model	Price per month	Description
Free	0	Online ad-supported desktop version
Unlimited	4,99	Online ad-free desktop version
Premium	9,99	Premium service, mobile and offline

Source: (Spotify, 2011f).

Spotify's strategy is to let users discover new music. Once hooked to a song, users are likely to buy the song or pay for the Premium service each month, to be able to listen to their new favourite music anytime everywhere on their smartphone or mp3-player (Bertoni, 2011).

Recently Spotify started partnerships with telecom operators such as Virgin Media, Telia and KPN. These operators offer extended trials or discounted subscriptions to their costumers as part of a broadband package. These partnerships are also likely to improve Spotify's conversion rate (Bradshaw, 2011b).

Financial

Data on the operations of Spotify are very limited. However, recently Spotify Limited (a part of the Spotify Group) filed its 2010 financial results with Companies House in the UK. The figures (see Table 18) show a 458% increase of revenues between 2009 and 2010: from £11.32 million in 2009 to £63.17 million in 2010.

Table 17: Income for Spotify Limited for the year to 31 December 2009 and 2010

	2010	2009
	£	£
Continuing operations		
Revenue	63,167,926	11,320,388
Cost of sales	(64,801,478)	(7,502,705)
Gross loss	(1,633,552)	(7,502,705)
Distribution costs	(1,370,014)	(608,235)
Administrative expenses	(23,729,462)	(8,157,390)
Other operating income	2,796,812	390,270
Other operating expenses	(2,605,095)	(729,117)
Operating loss	(26,541,311	(16,607,177)
Finance income	-	51
Finance costs	(277)	(86)
Finance costs – net	(277)	(35)
Loss before tax from continuing operations	26,541,588)	(16,607,212)
Income tax expense	-	-
Loss for the year	(26,541,588)	(16,607,212)

Source: Musically (2011c).

Music Ally, which published Spotify's financial report, also published figures on their advertising and subscription revenues. The advertising revenue grew from £4.51 million to £18.06 million, while subscription revenues explosively increased from £6.81 to £45.07 million in 2010 (Music Ally, 2011c). These figures show that Spotify relies heavily on the revenues from subscription. This report was made public before Spotify reached its first million paying customers. Since then, the number of subscribing users doubled.

Even though the revenues increased with 458% in one year, the losses also grew from £16.61 million in 2009 to £26.54 million in 2010. This is due to growing administrative expenses and distribution costs. So despite its fast and big growth Spotify is not yet a profitable company.

Strategic challenges

In November 2011, Spotify opened up its platform to outside developers, so they can build apps that play anything from Spotify's music catalogue, with support for full-track streaming, playlists, search etc. Magazines such as Rolling Stone already build their own app, with music reviews, suggestions and playlists (Gelles, 2011).

Another challenge of growing importance is the increasing cost of licensing, following on the growing numbers of subscribers. The cost of sales – much of which will be royalty payments to rights holders – already grew from £7,5 million in 2009 to £64.8 million in 2010 (Palmer, 2011). Spotify will have to collect more paying subscribers to cover the costs for licensing or further restrain their free listening service as they did in May 2011.

Spotify needs to negotiate with two important parties: labels and music publishers. Spotify signed agreements with the labels including strict non-disclosure agreements. However, recently some secret demands of the labels became public. The music labels demand pro-rata shares per subscriber, costs per play and a percentage of the total company revenue, regardless of other business areas. Next to that, they receive an equity stake and thereby get partial ownership of the company. Besides financial agreements, they also made agreements about detailed reporting on the monthly play counts, data normalization and equal deals and terms for all the labels.

Once Spotify signed agreements with the labels, it still needed to make deals with the music publishers, and it has not always succeeded in doing so. Additional problem is that ownership of songs is not always well registered and sometimes right owners are difficult to find.

Because Spotify signed strict non-disclosure deals, they are not allowed to talk about the agreements. Artists have criticised the streaming music service for the low payments to artists. Even though they are not responsible for the payments to the artists – Spotify can not defend itself to this accusation.

Spotify does not have much of a choice: if the deal with one of the big labels is not signed, they will find a gap of approximately 25% in their music catalogue. And there is no option of turning to another supplier. Thus, as long as copyright law gives record labels and publishers a monopoly, digital streaming services have only two options: accept the terms or not include those songs in their catalogue (Robertson, 2011).

In order to compete with Apple, Spotify launched a music store in its streaming service program. Spotify negotiated new licences with labels and publishers to sell MP3 bundles (Bradshaw, 2011).

Table 18: Prices in Spotify's music store

	10 tracks	15 tracks	40 tracks	100 tracks
Price	€9.99	€12.99	€ 30.00	€60.00
Price per track	€1.00	€0.87	€0.75	€0.60

Source: Spotify, 2011a.

In addition to this music store, Spotify made a lot of effort to integrate its desktop app with Apple devices such as iPods and iPhones. Music bought from the iTunes store can now be moved to the Spotify library. On top of that, non-subscribers can download Spotify's smartphone app which they can use instead of an in-built media player on iPhones and iPods (Bradshaw, 2011). All these strategies are making iTunes and Apple software superfluous for users of Apple devices.

In response to this, Apple launched its iCloud service. The iCloud stores all the user's content and pushes it to all Apple devices he or she owns (Waters, 2011), more or less like the Spotify streaming service. Music not purchased on iTunes can also be added to the iCloud through iTunes Match: users don't need to upload their music libraries. Apple scans a user's hard drive and matches the songs to the tunes available in the iTunes store (Waters, 2011).

Spotify and its competitors are thus constantly developing new services and offering add-ons or new options in their existing services. This shows how fierce competition between online music providers is. Offering features which contribute to the ease of use on any device and cloud services are an important part of this strategy. Connections with social networks and strengthening the links between the service and the social network by offering recommendation, sharing and other features are another very important asset. The main strategic challenge for Spotify is to reach the point where it will become a profitable business, by building and securing a strong customer base, in combination with closing profitable license deals with all major music labels

Annex B: Company Case Study - EMI

Company history

Electric and Musical Industries Ltd or **EMI** is a multinational music company with its headquarters based in London and offices in some 50 countries around the world. It also has a music publishing arm: EMI Music Publishing, with offices worldwide.

The company was created in 1931 through a merger of the American Columbia Graphophone Company and the British Gramophone Company with its His Master's Voice label. The merger was a response to the declining business resulting from the Great Depression. The new company produced sound recordings as well as recording and playback equipment. It used to be known for its pioneering work in stereo sound recording and magnetic tape recording but was also involved in broadcasting, radar and medical equipment. The equipment branch was sold off in the early eighties. EMI released its first LPs in 1952 and its first stereophonic recordings in 1955.

EMI's classical artists of the 50s were largely limited to prestigious British orchestras. From the late 50s to the early 70s, EMI became hugely successful in popular music with artists like Frank Sinatra, Cliff Richard and Nat King Cole, and bands such as the Shadows, the Hollies, the Beach Boys and the Beatles. It continued to contract many leading American and British pop musicians and bands, or acquired record labels, which licensed the work of major artists, including (at some time) The Rolling Stones, Stevie Wonder, Diana Ross, Pink Floyd, Queen Snoop Dog, but also stars from other countries and regions such as the Lebanese singer Fairuz and the Egyptian singer Um Khaltoum, both hugely popular in the Arabic world.

The two constituent EMI companies were already internationally minded before they merged. Gramophone Company had subsidiaries throughout Europe, Russia, the Middle East, Africa, China and Columbia Graphophone also had businesses outside the US in Europe and Egypt. EMI early in its history established offices in Commonwealth countries (India, Australia, New Zealand). In the late fifties it entered the USA market. Its music recording arm became the fourth biggest and its music publishing arm the second biggest in the world (Wikstrom, 2010).

The company has gone through some major restructuring operations since its take-over by private equity firm Terra Firma Capital Partners in 2007 (which purchased it for £4.2 billion, borrowing £3 billion from Citibank). In a large cost cutting operation approximately one third of EMI's 5,500 employees were made redundant. Some of EMI's major artists ended their contracts with the company. In 2008, EMI withdrew from the South East Asian market entirely.

In 2011 Maltby Acquisitions Limited, the holding company which controls EMI was taken over by private investor Citibank, which enabled the company to write off a substantial part of its debts and improve its balance sheet, thereby enabling it to invest.

The company has a long history of mergers and acquisitions. Since 2000 there have been a number of attempts to merge with Warner Music, all of which failed, either due to anti-trust issues or because others offered higher bids (Dransfield, 2007). In November 2011 the recording and music publishing arms were split up by hostile takeovers: Vivendi, owner of Universal Music Group, bought the music publishing arm, while a Sony-led consortium took over the music publishing arm (Edgecliffe-Johson & Davoudi, 2011). The 2011 take-over by Vivendi and Sony also raised questions about market concentration and at the time of finalizing this report the discussion on this acquisition had not yet been settled.

Current position of EMI

Table 19: Key economic data for EMI

Year	Employees	Revenues (£) (millions)	Operating profit (£) (millions)
2010	3,380	1,651	121
2009	3,792	1,569	7
2008	4,536	1,458	(258)*
2007	-	1,808	(157)
2006	-	2,080	206
2005	-	2,001	161

^{*} Low profit due to costs of restructuring.

Source: Annual reports.

Like the other major music companies EMI has been slow to respond to the changes brought about by digitization, and like the other majors it has focused for a long time on fighting copyright perpetrators and piracy, instead of reinventing its business and adapting to the digital environment. Nevertheless EMI has experimented with digital services and new deals with online music providers. On its company website it mentions the following initiatives:

"1998 EMI streamed the first complete album over the internet, 'Mezzanine' by Massive Attack. The following year EMI was the first company to release a digital album download, David Bowie's Hours'. EMI also launched the first internet video single in 2001. In 2007 EMI was the first major music company to make its music available without digital rights management (DRM) software [through the Apple iTunes store and Amazon, AL, amongst others]. Today EMI Music has agreements with hundreds of digital partners to distribute our music across the globe, covering a huge variety of digital music business models and ideas." (company website, http://www.emimusic.com/about/)

In 2000, Streamwaves and EMI signed a deal licensing EMI's catalogue in a digital format for their online streaming music service. This was the first time EMI had licensed any of its catalogue to a streaming music website, which since has become a model which many more online music service providers offer, amongst them the popular service Spotify (see the other company case study in this report).

Drops in CD sales caused major losses. The EMI Group reported pre-tax losses of £1.75 billion for the year ending in March 2009. The company has also been struggling with debts. The music publishing arm has done slightly better. It has succeeded in getting its songs used in more films, television shows and advertisements, as well as in the very popular music oriented shows such as Idols and thus earned revenues from royalties (The Economist, 2010).

After a strategic review EMI announced in June 2010 that it would "reposition itself as a comprehensive rights-management company serving artists and songwriters worldwide". This means that rather than selling CDs it would now focus on securing and exploiting the copyright to songs on different platforms and services. This shift in focus was underlined by Robert Faxon, the former chief executive of the Music Publishing arm becoming the EMI Group executive (EMI, 2010).

Other important developments for EMI since 2000, apart from contracting new artists or acquiring new labels and securing copyright licensing deals, include the outsourcing of CD manufacturing and distribution operations.

EMI is big in Europe and Japan, but trails behind its rivals in the US market. As of June 2011, EMI had 8.8% of U.S. music sales this year, compared with Universal Music Group's 29.5%, Sony's 29.4% and Warner's 19%, according to Nielsen SoundScan (Pham, 2011).

Business and revenue models

EMI has combined its Music Publishing and Music Recording divisions, in an attempt to more closely align both businesses. When contracting new artists it now tries to secure rights in such a way that it enables EMI to strategically exploit the music for various (new) purposes and on different distribution platforms (Buskirk, 2010).

While still contracting new artists, EMI increasingly focuses on exploiting the royalties of its catalogue music for a variety of purposes, including radio airplay, film music, advertisements and game music and distribution through online music services.

Strategic challenges

Like all legacy music companies EMI faces the challenge of adapting its business to the digital environment. Many music fans, musicians, internet guru's and other experts are sceptical about the music industries' chances to remain a relevant business. According to them most (or even all) of the record labels' activities have become so cheap and easy that musicians and artists can now perform these activities themselves, without having to rely on the record labels, which in return would demand the unreasonably high price of handing over all copyrights. Others however point to how music companies attempt to regain their control over the value chain by closing 360 degree deals with artists and by increasingly closing deals and entering in joint ventures with online music service providers, ISPs and telecom providers. Their ownership of many artists' rights are still an important asset and online music service providers would not been able to survive in the market without deals with the major music company labels, including EMI.

European Commission

EUR 25277 – Joint Research Centre – Institute for Prospective Technological Studies

Title: Statistical, Ecosystems and Competitiveness Analysis of the Media and Content Industries. The Music Industry

Authors: Andra Leurdijk, Ottilie Nieuwenhuis

Editor: Jean Paul Simon

Luxembourg: Publications Office of the European Union

EUR - Scientific and Technical Research series - ISSN 1831-9424(online)

ISBN 978-92-79-22543-7(pdf)

doi:10.2791/796

Abstract

This report offers an in-depth analysis of the major economic developments in the music industry. It looks at music companies, and covers the production and distribution of recorded music, including online distribution, and the competition which these companies face from other online music providers. It also looks at the organisation of live performances and the exploitation of music copyright, though data on how these activities contribute to revenues in the sector are less systematically available. The analysis integrates data from this project's statistical report and includes a database of the major music publishing companies plus two company case studies (EMI and Spotify).

The report is divided into six chapters. Following the introduction in Chapter 1, Chapter 2 introduces the sector and its main economic and technological features. Chapter 3 analyses the value network of the music industry, identifying the transformations taking place in the value network and business model as a result of the on-going digitization process. Chapter 5 identifies the main regulatory issues affecting the economic position of the EU music publishing industry. Finally, Chapter 6 weighs the strengths and weaknesses of the European music publishing industry against the opportunities and threats posed by digitization and the internet.

The study is based on a review and synthesis of the available literature and reports and on official (Eurostat) and unofficial (trade organisations and consultancies) data on the music publishing industry.

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new standards, methods and tools, and sharing and transferring its know-how to the Member States and international community.

Key policy areas include: environment and climate change; energy and transport; agriculture and food security; health and consumer protection; information society and digital agenda; safety and security including nuclear; all supported through a cross-cutting and multi-disciplinary approach.



