Study on the economic impact of Generative AI in the Music and Audiovisual industries

## **Complete study**

Current situation and 5-year perspective November 2024





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## Disclaimer

- This Study was prepared by PMP Strategy, an independent strategy consulting firm mandated by CISAC, to assess the economic impact of Generative AI on creation in the Music and Audiovisual sectors.
- The study provides PMP Strategy's independent and objective view on the evolution and impact of the use of Generative AI services on the two repertoires considered up to 2028. The historical figures and forecast assumptions are based on market data, relevant benchmark and interviews with industry experts: Collective Management organizations (CMOs), creators, tech players, producers, publishers, DSPs, and institutional players representative of the two industries.
- Inevitably, unanticipated events and circumstances may occur, and some of the assumptions used to develop the forecasts may not be realized. Consequently, while we consider that the information and opinion given in this Report are sound, PMP Strategy does not guarantee or warrant the conclusions contained in the Report.
- The Study is valid at the date of completion, which may fall prior to publication. The authors do not take responsibility for any information or events after the Report's delivery date which may affect its contents.



## CISAC has commissioned PMP Strategy to assess the economic impact of Generative AI on creation in the Music and Audiovisual sectors

1 Market size

What will be the <u>market size</u> of Music and Audiovisual outputs generated by AI in 5 years (2028)?

Market penetration and market value (on both B2C and B2B segments) of Gen AI outputs

2 Revenue loss

What will be the associated loss of revenue for creators by 2028?

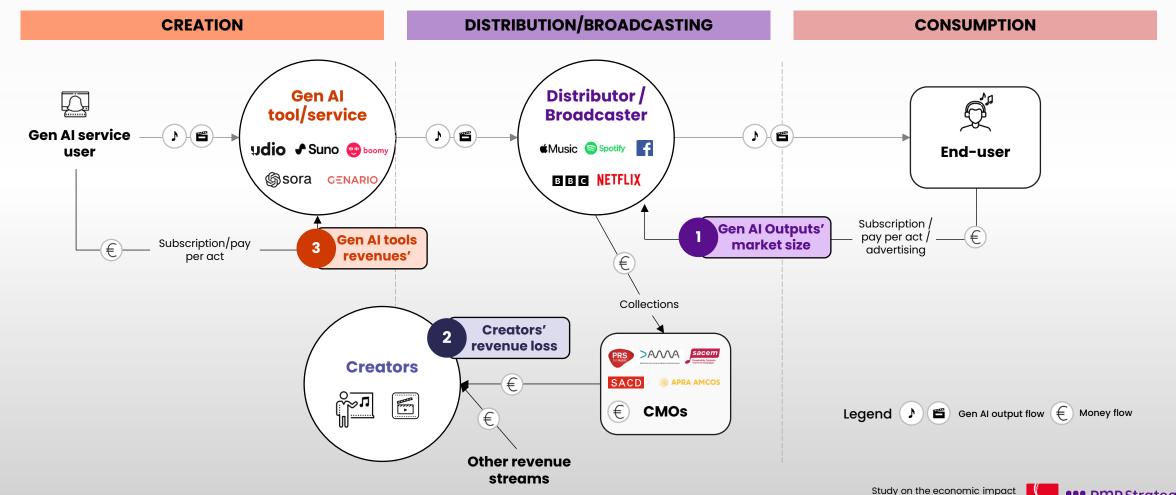
Potential cannibalisation of creator's revenue streams due to the substitution of human works by Gen Al outputs

Gen Al services' revenues

What will be the <u>revenues of Gen AI tools/services</u> providers by 2028?

Revenues of Gen AI tools aimed at the general public and professionals, offering either complete outputs generation and/or assistance in the creative process

- The evaluation focuses on 1 the value of Gen Al outputs in the market,
  2 the associated impact on creators' revenues,
  - the revenues of the tools enabling outputs' generation



## The study aims at identifying the main applications of Gen Al in these fields by 2028 and estimating their economic impact



**Broad scope** 

Broad scope of the study: **2 repertoires, international footprint** 



**Exhaustive** approach

**Quantitative and qualitative analysis**, based on interviews and insights from industry experts, existing studies / market data and workshops



Involvement of industry experts

**Strong involvement of CMOs and representatives from the industries**: 50 industry professionals interviewed or involved in workshops



Use cases & market trends analysis

Detailed analysis of **use cases and underlying factors / market trends** determining their evolution over the next 5 years



Two-level impacts analysis

Impact of market penetration by Gen Al outputs and impact on creators' revenues (both in terms of revenue loss due to cannibalisation and of revenue opportunity)



Transparent methodology

**Transparent methodology** and assumptions built and validated with CMOs and CISAC team

## The study is based on experts' interviews, internal and external data analyses, and workshops

**Expert interviews** 

+50

...interviews with industry professionals from the Music, Visual Arts and Audiovisual sectors between July and September 2024

(Creators, Producers, Publishers, Distributors, DSPs, CMOs, Tech & Al companies, institutional players)

**Data sources** 

## Public and private players' data sources

- Market data
- Studies and panels on use cases and trends in Generative Al
- Literature and main texts on regulatory context and copyrights issues

Workshops

8

Workshop sessions with CISAC members and industry experts

## 50 interviews were conducted with representative stakeholders from the 2 industries, across the value chain









## Generative Al overview



## What is Generative AI?

Who are Gen AI services' providers in the field of creative industries and how is the ecosystem structured?

What are the issues at stake in terms of copyright management?

What are the main trends driving the growth of Generative AI in creation, today and by 2028?



## Generative AI is the recent pinnacle of 50 years of progress in Artificial Intelligence

#### Ex. of applications Al fields **Associated functionalities** What are the different AI technologies? What are the main characteristics & specificities How do they translate How do they interlock with each other? concretely? of each technology? 1950's Ability given to machines to mimic human Artificial Intelligence (AI) intelligence and cognitive functions to n.a. (research field) perform various tasks (problem solving, 1970's learnina) 1980's **Machine learning** Ability given to machines to learn from structured datasets, without explicit supervised or unsupervised Weather Customer programming, to detect patterns and make behaviour forecasting decisions/predictions 2000's prediction Ability given to machines to learn complex Deep learning patterns based on artificial neural 2010's Facial Documents networks, from large and unstructured recognition reading datasets Ability given to machines, notably relying on LLMs<sup>(1)</sup>, to learn complex patterns to **Generative Al** 2020's Image/video Human-like generate new content: language, visual and creation interaction audio, etc.

Key events popularizing Al technological advances

#### 1996 TRM

G. Kasparov, world's chess champion, was defeated by Deep Blue, IBM's developed supercomputer relying on machine learning

Watson, IBM's developed supercomputer relying on deep learning, won 1st place in US auiz show Jeopardy! against historic champions



OpenAl publicly launches ChatGPT, an Al-powered chatbot engaging in conversational dialogues and providing responses to user queries

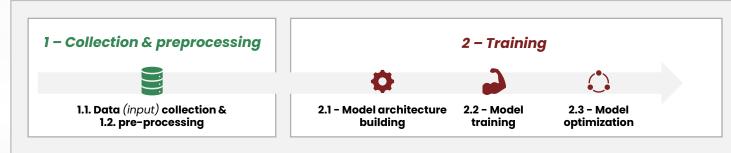
(1)Large language models, enabling to perform a variety of natural language processing tasks (generate human-like text, classify text, answer questions, etc.)



## Generative Al models leverage deep learning on large datasets to generate new content (image, text, video, audio) upon the user's instruction

## Key steps for the development and use of a Generative AI model

#### Al model development



#### 1.1. Data collection:

- Selection of large datasets, relevant to the type of output to be generated by the program
- Necessary mass copying and storage of data

#### 1.2. Data preprocessing:

 Preparation of the raw data for analysis (cleaning, normalising, labelling, enhancing, etc.)

#### 2.1. Model architecture building

 Selection and building of the model architecture (including GANs, VAEs, transformer-based : see detail on next page)

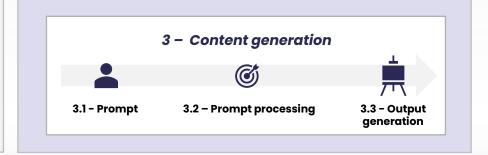
#### 2.2. Model training

- Training of the model, taught from the pre-processed dataset
- · Unsupervised learning

#### 2.3. Model optimization

- Continuous/iterative performance evaluation
- Adjustments/refinement of parameters (to minimise difference between the output and real data)
- · Improvement of the model structure

## Al model production and use



#### 3.1. Prompt

 Instruction of a prompt by the user to the model (in the form of text, image, video or audio)

#### 3.2. Prompt processing

 Processing of the prompt by the AI program, leveraging the training phase

#### 3.3. Output generation

 Generation of an output (new content) in the form of text, visual or audio content

## Most Gen AI programs today are based on 3 models - GANs, VAEs and transformer-based models, with specific applications and benefits

## Generative Adversarial Networks (GANs)

## Description

Involvement of two neural networks in GANs:

- The **generator**, which creates data (produces data so convincing that the discriminator cannot distinguish it from real data)
- The **discriminator**, which evaluates it (becoming better at identifying fake data over time)

#### **Main applications**

- Image creation
- · Realistic photographs generation
- · Art, and fashion designs
- · Video game environments
- ..

#### **Examples of AI Services**

- DeepArt.io: Transforms user-uploaded photos into artwork in the style of famous painters using GANs
- ThisPersonDoesNotExist.com: Generates lifelike human faces that don't belong to any real individuals

## Variational Autoencoders (VAEs)

Two key phases in the VAEs' generative model:

- 1. Encode input data into a latent space
- 2. Decode to generate new, similar data

Learning of complex data distributions and producing new instances similar to the input data

- · Image generation
- · Synthetic datasets creation
- Drug discovery
- Music generation or other audio content
- .

- Jukebox by OpenAl: Produces music in various genres and styles by sampling and processing audio in latent space
- AIVA (Artificial Intelligence Virtual Artist): Composes original music scores suitable for films, games, and other content

#### Transformerbased Models

Use of **attention mechanisms** to process sequences of data (text or pixels), by focusing on different parts of the data at different times

Generation of coherent and contextually relevant content

- Natural language tasks (translation, summarization, and text generation)
- · Image-related tasks
- ...

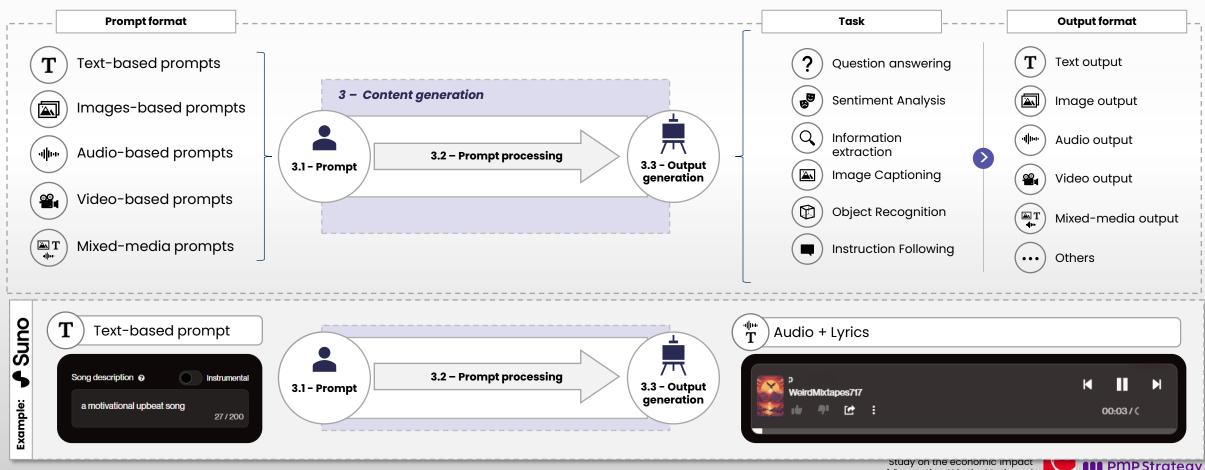
- GPT-3 by OpenAl: An advanced language model capable of understanding and generating human-like text (answers to questions and creates content)
- DALL-E by OpenAl: Generates imaginative images and art from textual descriptions



The field is rapidly evolving, with new models being developed regularly – other models include autoregressive, diffusion models, RNNs, EBMs, and flow-based models

## Generative AI engines can handle all data formats to generate increasingly diverse contents, and perform a wide range of tasks

## **Generation process of Gen Al outputs**

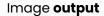


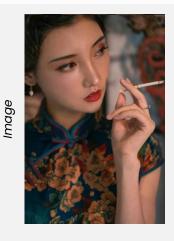
## Recent cases have demonstrated the ability to generate content always closer to human creations

Illustration of Midjourney technology performance evolution | 2022 - 2023

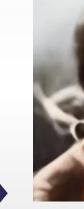


Text & Image-based **prompt** 





vintage photo, girl smoking cigarette, irina nordsol kuzmina, a hazy memory, pixiv --ar 2:3











Feb 2022

April 2022

July 2022

Nov 2022

Mai 2023

Dec 2023

Midjourney V1

Initial version with raw results

Midjourney V2

Introduction of upscaling and variations, improved coherence Midjourney V3

Improved lighting, reflections and realism. Added stylised and quality parameters Midjourney V4

Photorealistic quality, ability to generate complex designs Midjourney V5.1

V5.1 to V5.2: Greater realism and aesthetics **Midjourney V6** 

Improved image quality and prompt understanding



Text prompt

## Generative AI tools are thus increasingly questioning the very notion of creation

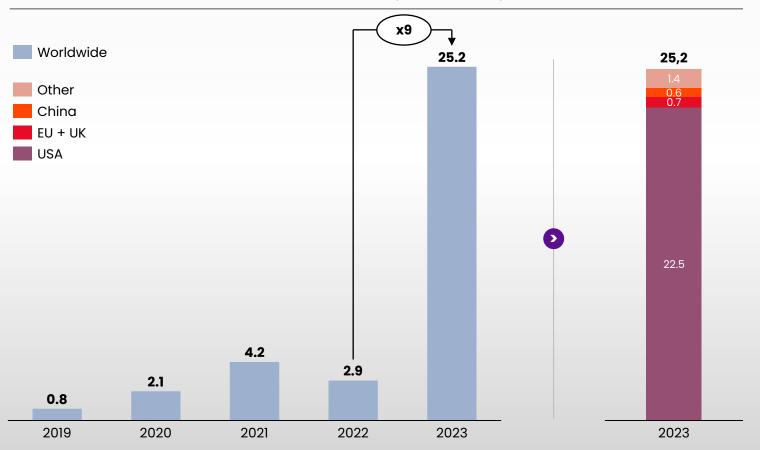
## Extract of *Qianqiu Shisong*, China Media Group Al-generated animated series | 2022



- In February 2024, Chinese state broadcaster, China Media Group (CMG), launched the country's first animated series created with a Generative Al tool, Qianqiu Shisong, which features ancient stories based on traditional Chinese poems and verses, and aims to showcase the country's traditional culture and aesthetics.
- The series was produced using CMG's internal text-to-video model (Media GPT), trained on traditional Chinese poetry and video and audio material from China Media's catalogue.
- The production studio indicated that artificial intelligence was used at every step of the development and production process, from design to video generation and post-production.

## While total investment in AI has recently slowed down, the Generative AI market is skyrocketing, with an unprecedented surge in 2023 highly driven by the US

## Private investment in Generative AI | Worldwide, 2029 - 2023, \$Bn



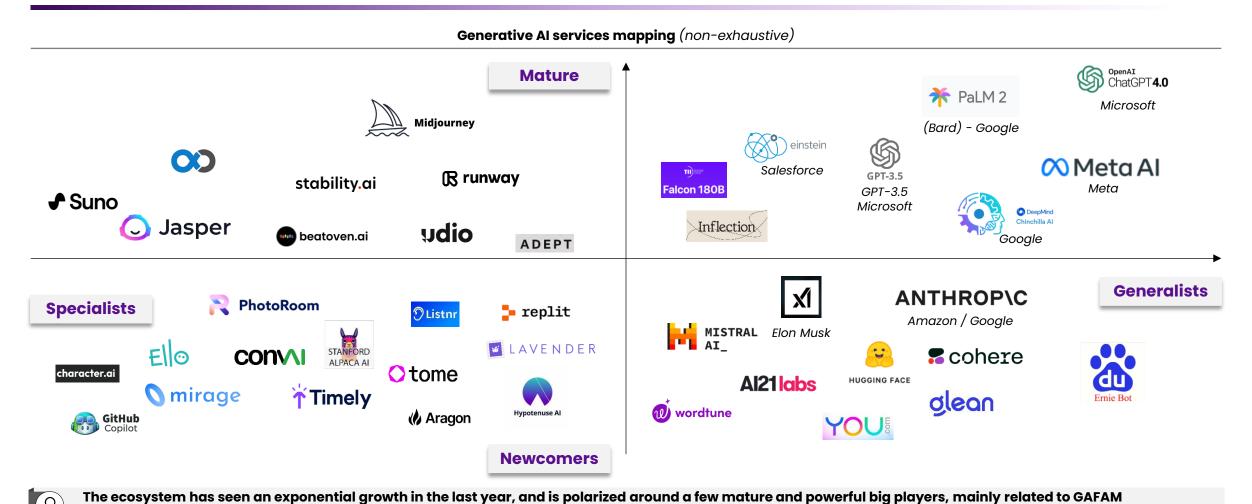
- Investments in Gen AI have surged recently as the technology demonstrates its potential to transform industries and reshape the business landscape
- A wide range of startups and Gen AI applications are targeted by investments in sectors such as technology, telecom, healthcare, financial services, energy, consumer goods, media, culture, and entertainment
- Generative AI is becoming a key driver of innovation, with applications that enhance operational processes and create new products and services, impacting nearly every aspect of the modern economy

Over the past few years, we've witnessed a significant surge in investments in Generative AI by major tech companies and private investors. This trend is driven by the potential of Generative AI to revolutionize jobs in various sectors.

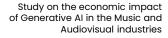
**Tech Company** 



# Generative Al encompasses a fragmented and fast-developing ecosystem, with major generalist players mostly related to GAFAM and multiple smaller solutions serving specific purposes



(~1bn visitors/month on OpenAl.com), and a very scattered network of small and specialized newcomers



## Generative Al overview



What is Generative AI?

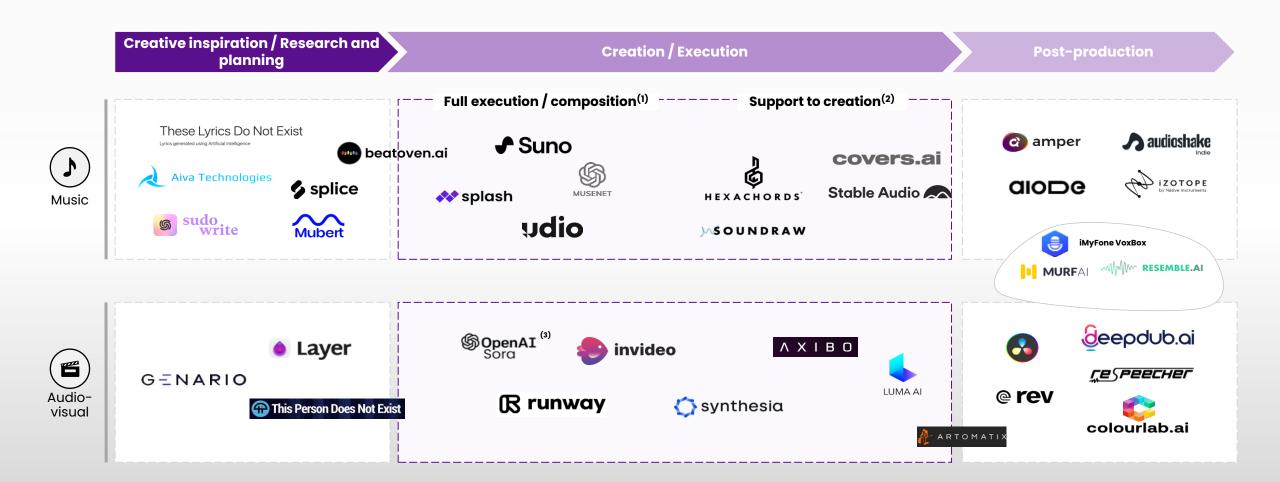
Who are Gen Al services' providers in the field of creative industries and how is the ecosystem structured?

What are the issues at stake in terms of copyright management?

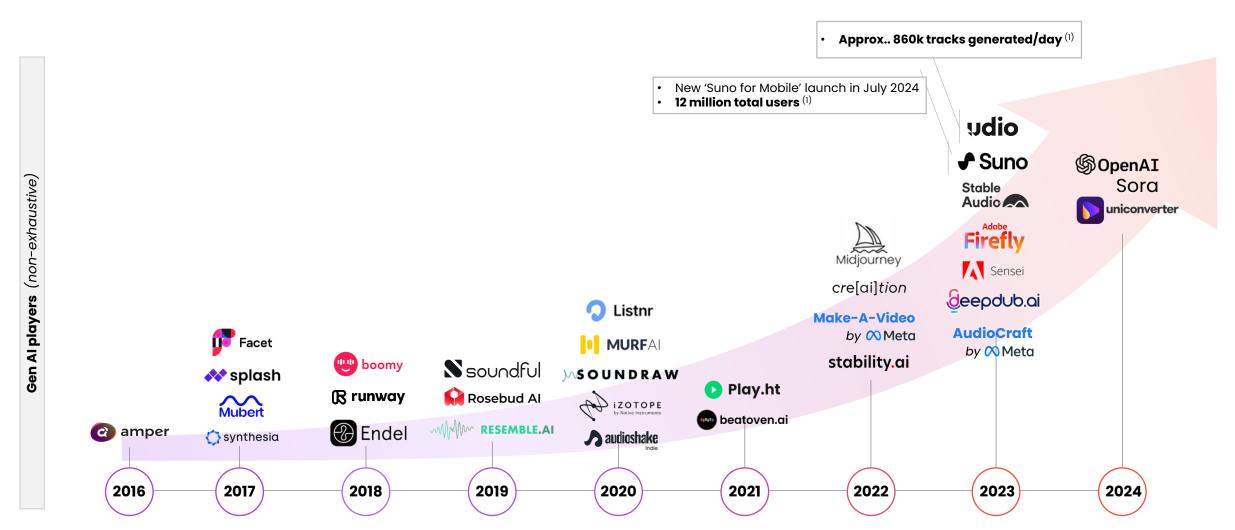
What are the main trends driving the growth of Generative AI in creation, today and by 2028?



## In Music and Audiovisual, Gen Al services have emerged with use cases ranging from assistance on specific tasks to fully automated complete outputs generation



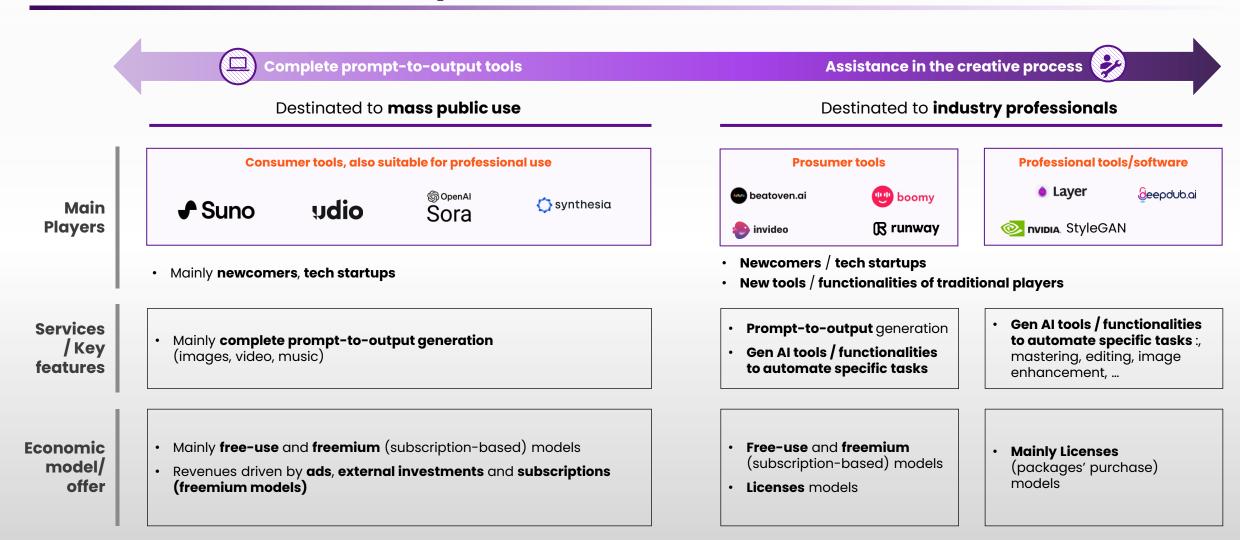
## The ecosystem in these fields is mainly made up of very recent, fast-growing newcomers(1)



Note: (1) As of July 2024

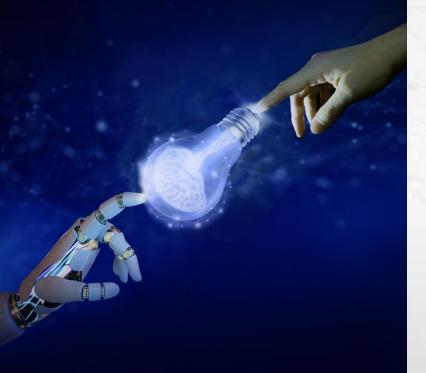


## Models vary according to the use cases addressed and target audiences, and have not all yet reached their full level of maturity



Note: (1) Experienced amateurs

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## The use of Gen AI in creative industries raises two main issues related to copyright management



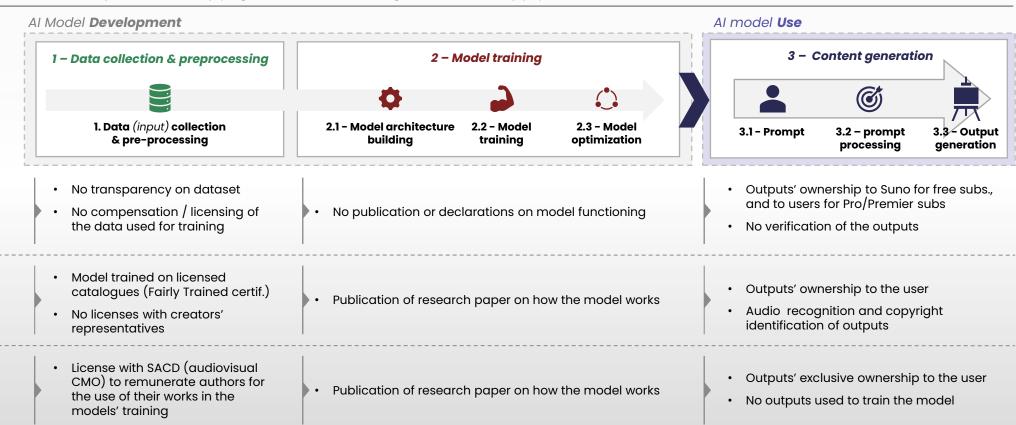
- To what extent AI models have been trained by using copyrighted works in their datasets?
- How can creators be remunerated for the use of their works to train Gen Al models?
- What will be the implications of the increasing use of synthetic data?



- Do Gen AI outputs infringe copyright on existing works?
  - e.g., creation of works "in the style of"
  - Who is/should be liable in case of copyright infringement?
- What could be the ownership and "copyrightability" of Gen Al content?
  - What can/should be considered as Gen Al content?
  - Should Gen Al outputs be protected? Who would own the rights on Gen Al outputs?

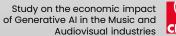
## There are widely varying degrees of transparency in the operation and construction of Al models

SUNO vs. JEN AI vs. Genario: a comparison of copyrights concerns along the Gen AI supply chain





When asked about OpenAl's training data sets, CTO Mira Murati responded: **"We used publicly available data and licensed data".** However, publicly available data doesn't mean copyright-free data (ex: Youtube videos).



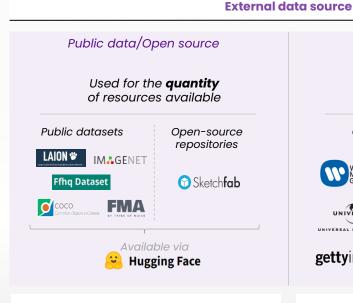


Suno

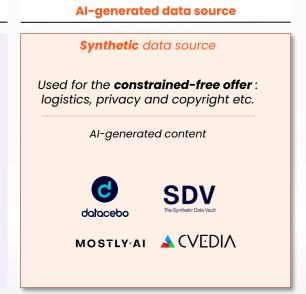
**GENARIO** 

## The performance of Generative AI models is closely tied to their training datasets, ranging from in-house data to AI-generated synthetic data, raising copyright concerns

# In-house data Used to tailor models to specific user base User-generated content Specific User base User-generated content Specific User base User-generated content







#### Specificities & risks

Catalogues

& Players

(non-exhaustive)

- Highly relevant and personalized datasets
- Enables to improve user engagement and satisfaction
- Privacy concerns
- Data bias reflecting user base

- Broad coverage and cost effective
- Promotes transparency and reproducibility
- Variable quality and reliability
- Potential for outdated or irrelevant data

- High accuracy and reliability
- **Domain-specific** insights
- Expensive data
- Licensing restrictions
- Potential ethical concerns

- Cost and time efficient (generated faster and more affordably)
- Non-copyrighted material
- Data **availability**
- Consistency and control



- As synthetic datasets become more widespread, transparency issues in the training process of Gen AI models are becoming increasingly urgent
- However, AI models will always need non-synthetic, human-made data for bias mitigation, renewed creativity and staying in touch with current trends

## Industry players have started taking legal action against Gen Al services for the unauthorized use of their catalogues in models training



The New York Times

Major Record Labels Sue A.I. Music Generators

FINANCIAL TIMES

Universal Music Group (+ Add to myFT)
Universal Music sues Anthropic over Algenerated lyrics

- In June 2024, Universal, Warner and Sony filed federal copyright infringement lawsuits against AI music generator platforms Suno and Udio
- The Majors accuse the platforms of "mass infringement of copyrighted sound recordings copied and exploited without permission."
- Universal Music, Concord and Abkco have filed a copyright infringement lawsuit against the AI start-up Anthropic
- They accuse the AI company of using their artists' lyrics without permission to generate near-identical copies through its AI model Claude



The Times Sues OpenAI and Microsoft Over A.I. Use of Copyrighted Work

Millions of articles from The New York Times were used to train chatbots that now compete with it, the lawsuit said.

Tha<sup>T</sup>/arga

Al art tools Stable Diffusion and Midjourney targeted with copyright lawsuit

- The New York Times filed a lawsuit against OpenAI and Microsoft for copyright infringement, claiming that millions of its articles were used without authorization
- These works were allegedly used to **train AI technologies like ChatGPT**, which now **compete with the newspaper as a source of reliable information**
- A trio of artists (Sarah Andersen, Kelly McKernan and Karla Ortiz) filed a lawsuit against Al companies **Stability Al and Midjourney** for **copyright infringement**
- Several artists have joined the legal action, including other AI services in the prosecution:
   DeviantArt and Runway AI



Other examples

- In addition to legal action taken against Gen Al services, CMOs have started to establish opt-out mechanisms to prevent the training of Generative Al models using copyrighted works of their members (e.g., Sacem for Music)
- However, these mechanisms only apply to future training of AI models and are made possible by laws mandating transparency in the training processes of AI models



## Overall, the regulatory framework is still in progress and remains heterogeneous across regions

Non-exhaustive list



## **United States**



## Generative AI Copyright Disclosure Act (April 2024):

A proposed law requiring AI companies to submit a list of all copyrighted works used for training their AI models.





Clarified the necessity of human contribution to qualify for copyright protection, stressing that tools like AI can be part of the creative process, but human control over the expression is essential.

#### Legend



Mainly focused on input issues



Mainly focused on **output** issues



## **Europe**

## Directive on copyright and neighbouring rights in the digital market (April 2019):

Directive allowing text and data mining (TDM) necessary for AI training under certain conditions:

- <u>Article 3</u>: Allows data mining for scientific purposes without special conditions
- Article 4: Allows data mining for all purposes, including commercial, provided access to the data was lawful and rightsholders did not opt out

#### AI Act (April 16, 2024):



Introduces several obligations for AI systems:

- Ensuring respect of copyright, including for opensource foundational models
- Publishing detailed summaries of works used for Al training
- Identifying AI-generated content as such
- Extraterritorial application, effective from August 1, 2024, with phased implementation until 2027

## Council of Europe Framework Convention on AI (May 17, 2024):

Focuses on respecting human rights in AI development, emphasizing transparency for enforcing intellectual property rights.



## **Rest of the world**



## Guidance for Gen AI in education and research (UNESCO, Sept. 2023):

Calls for immediate actions and long-term policies to regulate the use of Gen Al in education & research, including text, image, video and music generation.



#### Copyright Act - Art. 30-4 (Japan, May 2018):

Copyrighted works can be used in the training of Al models without requiring a license. Rightsholders do not have the option to opt out, and there is no obligation for transparency



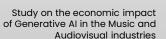
## Gen Al governance framework (Singapore, March 2024):

Advises policymakers to clarify the application of existing personal data laws to Generative AI. Aims to foster trusted Generative AI development.



#### Al policy on regulations & ethics (Israel, 2023):

Focuses on responsible AI innovation. Emphasizes on "soft regulation" with sector-specific guidelines. Aims to respect the rule of law, fundamental rights and public interests.





## Tools are also being developed to support industry players by helping them identify copyrighted works used as inputs, and detect Generative Al outputs



## Al models' inputs



Objective: Analyse Gen Al models to detect if copyrighted content has been used in their training

Method: Compel models to provide specific copyrighted works as outputs, with prompts designed to induce hallucinations, thus proving they have been used in the training process

Challenges: Difficult to scale/industrialize the process



## Al models' outputs



Objective: Scan specific works or entire catalogues to identify whether they have been generated by AI

Method: Identify Gen AI models biases and patterns (usually specific to each model) and scan images/music/video catalogues to identify whether they have been AI-generated

Challenges: Detection tools need to be regularly trained on popular Gen Al models to ensure they remain performant

**Example of tools** 

## **⊨** Spawning

**Spawning AI** is developing solutions to help identify whether a visual work has been used as Gen AI tools inputs (Have I been Trained?), help block AI web scrapping and enforce opt outs



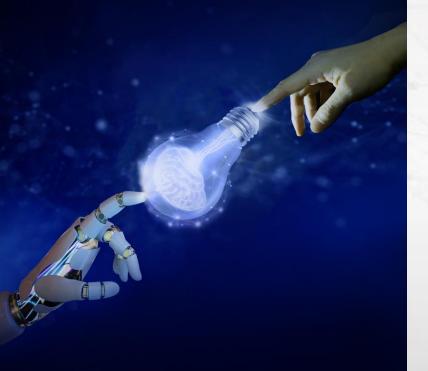
**Ircam Amplify** has developed a tool (Al-Generated Detector) allowing to identify and tag Gen Al musical outputs



**Deezer** is currently developing tools to:

- Identify whether a Gen Al model has been trained on specific tracks
- Detect music tracks generated by the world's largest music-generating LLMs

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## The adoption of Generative AI tools and outputs in creative industries will be determined by the strategies and behaviour of players across the value chain

Positioning in the value chain

Main drivers

Impact on Gen AI adoption

Gen Al providers/Tech companies



Technological progress

- Rapid technical evolution of Generative AI models is expected to continue in the coming years, enhancing their capabilities beyond simple text or image generation to more complex, multi-modal outputs
- Higher quality, more diverse, and personalized outputs, opening new opportunities across multiple industries

Creators

Growth of the creator economy

- Continued growth of user-generated content on social media, fostering the adoption of Gen AI tools to support content creators
- Further reduction of the barriers to entry for creation in all creative industries driven by Gen Al tools

Consumers/ End-users



Evolution of consumer habits

- Growing demand for interactive, on-demand, and contextually relevant content reshaping consumption
- Increasing trend toward passive content consumption, where digital platforms curate and recommend content to users rather than users actively selecting it themselves, with Gen AI likely to play a pivotal role in driving this shift

Distributors/
Broadcasters &
B2B players



Strategy and positioning of traditional players

- Shift in traditional players' strategies and positioning to adopt Generative AI for competitiveness, in all industries
- Integration of Generative AI by players across all segments of the creative industries' value chain: to introduce new offers, optimise content production and distribution, and renew business models

Legal bodies/CMOs



Regulatory environment and ethical issues

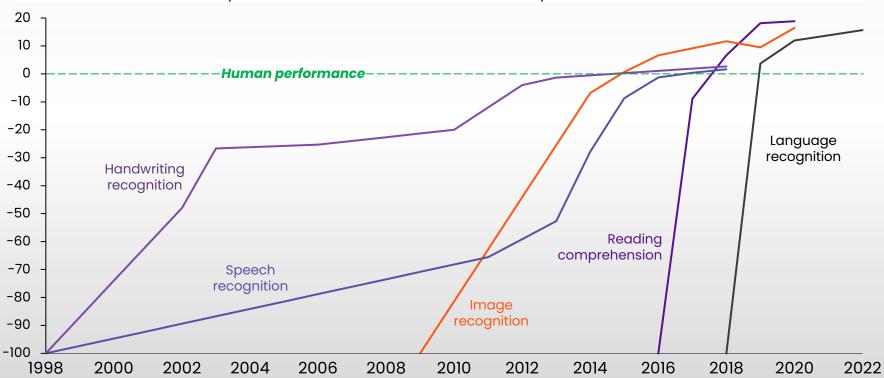
- Evolving regulatory frameworks addressing intellectual property, data privacy, ethics, and cultural diversity issues as Gen AI becomes more widespread, potentially impacting its growth
- Increased awareness of end users regarding ethical issues related to copyright, fair pricing, and the proper remuneration of authors



# Recent technological progress have enabled AI and Gen AI models to outperform human performance in all basic capabilities, laying the foundation for continued progress in the coming years

## Test scores of AI systems on various capabilities relative to human performance | 1998 - 2022

Within each domain, the initial performance of the AI is set to −100. Human performance is used as a baseline, set to zero.



- Al performances are above human for every **basic** (non-complex) **capabilities** analysed
- The later a capability started to be implemented, the faster it reached human-level performance:
  - Speech recognition: 19 years
  - Handwriting recognition:
     17 years
  - **Image recognition**: 7 years
  - Reading comprehension: 1 year
  - Language recognition: less than 1 year
- Technological advancements have paved the way for Generative AI to revolutionize various sectors and domains, including the creative industries



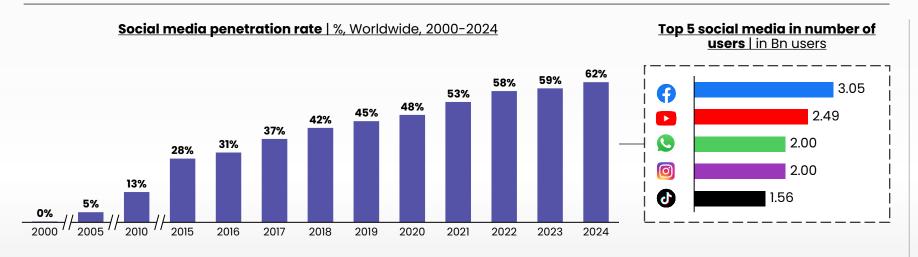
The growth of Generative AI is expected to accelerate even further in the coming years, with widespread adoption and advanced technical capabilities anticipated by 2028, driven by substantial investments in Gen AI models and their associated providers



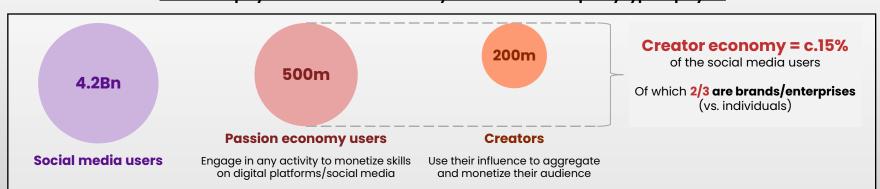


## The significant increase in user-generated content on social media will likely drive the high adoption of Gen Al

## Social media penetration worldwide and creator economy



#### Number of players in the creator economy in social media & split by type of players



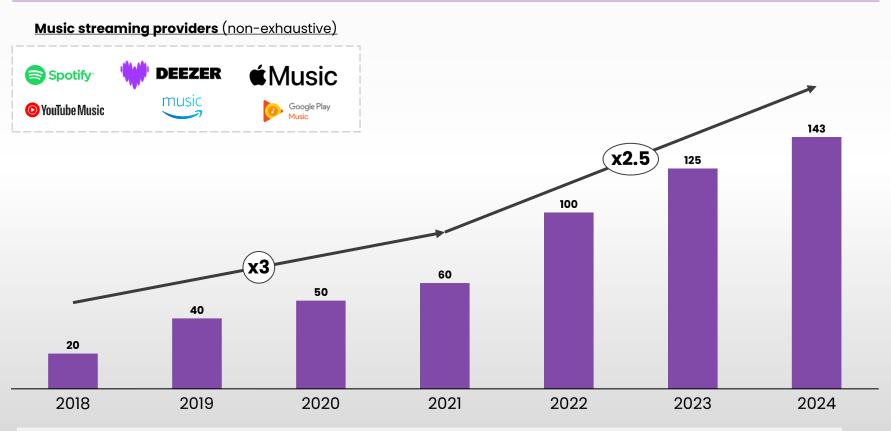
- The widespread adoption of social media has driven the growth of the creator economy across disciplines
- The creator economy has been boosted mainly by influencer marketing, content monetization, e-commerce and social selling
- Approximately 15% of the 4.2Bn users of social media (both individuals and businesses/brands) worldwide are considered part of the creator economy
- These creators, and particularly enterprises, are more inclined to use Gen AI tools to produce more personalized content for their users at scale
  - e.g., Nike and Coca Cola using Gen AI algorithms to create personalized and engaging advertising campaigns





# New tools, formats, and distribution channels have significantly lowered barriers to entry in music creation in the last decade, a trend which will be further fostered by Gen Al tools

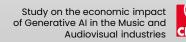
Approximate average number of tracks uploaded to DSPs each day | thousands, per year, 2018 - 2024



- Music streaming platforms have favoured the creator's economy in the music field, with:
  - Lower barriers to entry: easier distribution for independent artists without the need of traditional record label
  - Increased visibility and reach, through algorithms and curated playlists
  - Monetization opportunities, through the creation of a new revenue stream with the streaming royalties
  - Access to data & analytics, community & networking, creative freedom...



The **streaming platforms and other digital players** (e.g., music distributors like CD Baby), combined with the advancements in Generative AI tools, are empowering artists to **produce, distribute, and monetize** their **music** more easily than ever before







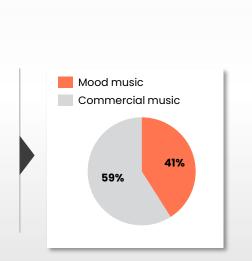
## Growing demand for interactive, on-demand, contextually relevant content, and the increasing trend toward passive consumption is driving the adoption of Gen AI by streaming platforms (1/2)

Passive music consumption (mood playlists) in streaming platforms | Focus on Spotify

	potify
--	--------

	Rank	<u>Playlists' name</u>	# of subs
TIDHE!	1	Today's Top Hits	34M
Top 50	2	Top 50 - Global	17M
RapCaviar	3	RapCaviar	15M
VIVA LATINO	4	Viva Latino	14M
Rock Classics	5	Rock Classics	11M
BAILA	6	Baila Reggaeton	10М
'All Out	7	All Out 2000s	10М
Songs to Sing in the Car	8	Songs to Sing in the Car	10М
All Out	9	All Out 80s	10М
Beast Mode	10	Beast Mode	10М

	<u>Rank</u>	<u>Playlists' name</u>	# of subs
Michael Jackson	89	This Is Michael Jackson	3M
One Direction	90	This Is One Direction	3М
Diero House Rolax	91	Deep House Relax	3М
Oitset Photover	92	Нуре	3М
HOT HITS	93	Hot Hits Deutschland	3М
Warm ruzzy reeting	94	Warm Fuzzy Feeling	3М
Control labite Jazz	95	Coffee Table Jazz	2М
Power Hou	96	Power Hour	2М
Intense Studying	97	Intense Studying	2М
Chill Vibes	98	Chill Vibes	2М



- platforms Music streaming increasingly offer curated playlists tailored to specific moods and activities. enhancing user engagement
- These **mood playlists** provide a seamless listening experience that requires minimal intervention from the user
- End-consumers streaming on increasingly platforms are gravitating towards passive music listening, driven by convenience, personalization, and discovery
- In the top 100 Spotify playlists in terms of subscribers, 41% are considered as functional/mood playlists (e.g., Morning Coffee), favouring passive listening



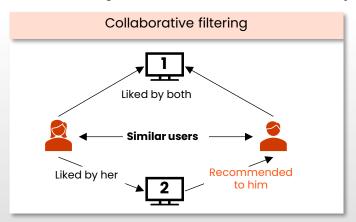
# Growing demand for interactive, on-demand, contextually relevant content, and the increasing trend toward passive consumption is driving the adoption of Gen AI by streaming platforms (2/2)

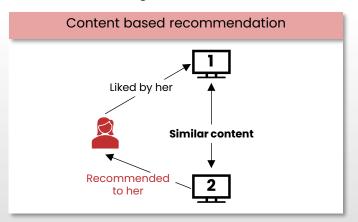
Video streaming recommendation | Example of Netflix | NETFLIX

**75%** 

of Netflix viewership is driven by its recommendation engine

<u>Diagram on Netflix recommendation system : Collaborative filtering vs. content based</u>





- Netflix recommendation's algorithm includes:
  - Data collection: viewing history, user interactions, and demographic data
  - Collaborative filtering: user-user and item-item
  - Machine learning models : identification of pattern in the user preferences
  - Content analysis : metadata analyses, natural language processing
  - Real-time personalization
- This directly influences user consumption behaviour: increased engagement and enhanced user experience



Consumers' appetite for recommended and personalised content is a key driver for the use of Generative AI,
 enabling even more advanced playlists and content with unlimited tailored content, down to the individual level



# Stakeholders across the entire value chain of the creative industries are increasingly adopting Gen Al to optimize content production and distribution and to renew their value proposition

Examples of current and projected Gen AI use cases across the main segments of the creative industries' value chain

### Artworks/Content aggregators

- Music: Music libraries using Gen Al to generate large number of new tracks, increasing catalog options and reducing prices
- BamMusic
- Audiovisual: Stock photo/video agencies using Gen AI to create short videos content, cutting costs and speeding up availability



#### **B2B** distributors

- Music: Audiovisual production companies using Gen AI to produce background scores in audiovisual content, lowering production costs, mainly in lower budget works
- Audiovisual: Brands using Gen Al video outputs on social media, enhancing end-consumer experience with more tailored and personalized content









### Commissioners of artworks/content

- **Music:** Press agencies using Gen AI to create background scores, lowering production costs
- **Audiovisual:** Advertising agencies using Gen AI to create personalized video ads, reducing costs and time



#### **B2C distributors**

- Music: Streaming platforms integrating Gen Al outputs in mood playlists, to create more tailored content with no copyright
- **Audiovisual:** VOD platforms using Gen Al videos to create trailers, cutting production costs











### **Approach and Methodology**

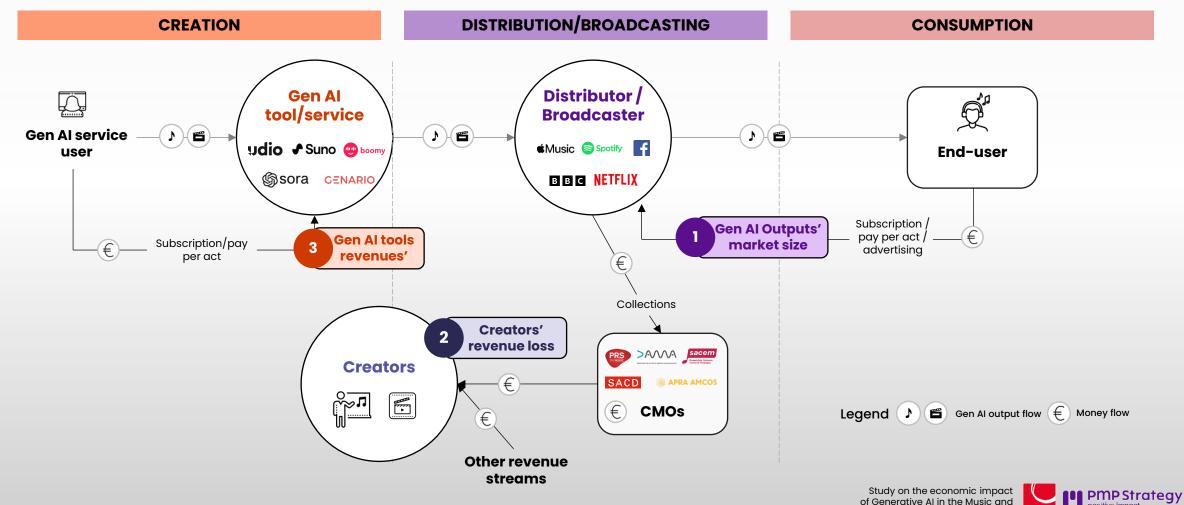
What will be the economic impact of Generative AI in Music by 2028?

What will be the economic impact of Generative AI in Audiovisual by 2028?

# CISAC has commissioned PMP Strategy to assess the economic impact of Generative AI on creation in the Music and Audiovisual sectors

**Key figure** What will be the <u>market size</u> of Music and Audiovisual outputs Market generated by AI in 5 years (2028)? size Market penetration and market value (on both B2C and B2B segments) of Gen AI outputs **Key figure** What will be the associated <u>loss of revenue</u> for creators by 2028? Revenue Potential cannibalisation of creator's revenue streams due to the substitution loss of human works by Gen AI outputs **Key figure** Gen Al What will be the <u>revenues of Gen AI tools/services</u> providers by 2028? services' Revenues of Gen AI tools aimed at the general public and professionals, offering either revenues complete outputs generation and/or assistance in the creative process

- The evaluation focuses on 1 the value of Gen Al outputs in the market,
  2 the associated impact on creators' revenues,
  - **10** the revenues of the tools enabling outputs' generation



# The methodology relied on qualitative and quantitative analyses, fuelled by interviews with industry players and workshops with CMOs



### **Qualitative** approach

Use cases identification and prioritisation

- Identification of the most significant generative AI use cases for creation in both fields
- Prioritisation of these use cases based on their potential adoption level to determine the ones with the most significant economic impact



### **Quantitative** approach

**Economic impact estimation** 

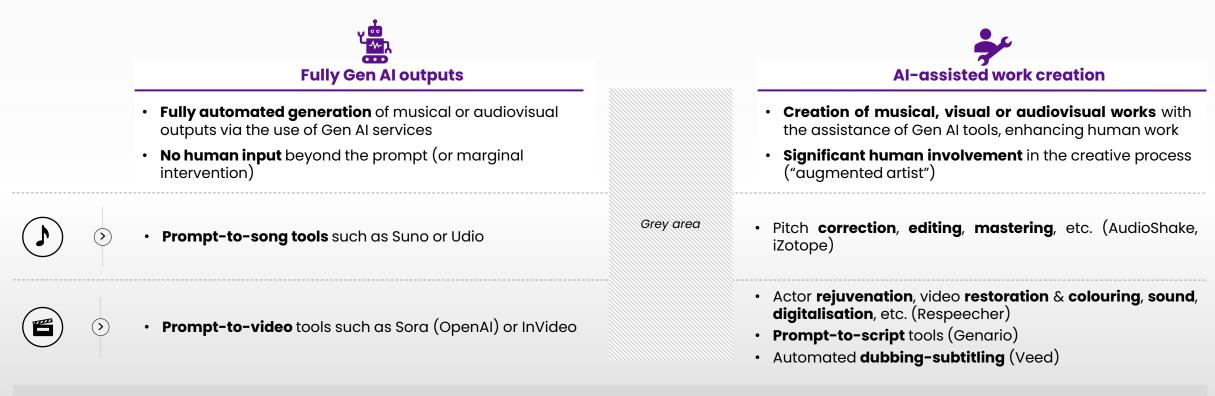
- Qualitative analysis used to feed the quantitative part (market hypotheses and impact estimates)
- Identification of market segments where generative Al has a significant impact
- Translation of qualitative assessments into quantitative estimates

# Generative AI has numerous applications in the filed of creative industries and can intervene at all stages of the creative process, from ideation to post-production

Generative Al use cases examples in Music and Audiovisual (non-exhaustive)

	Scope of the study				·- <u> </u>
	Creative inspiration	Research & Planning	Creation/execution	Post-production	Distribution & diffusion
Music	, ,	<ul><li>Trend analysis</li><li>Sample discovery</li></ul>	<ul> <li>Collaborative composition</li> <li>Arrangement optimization</li> <li>Prompt-to-music generation through Al</li> </ul>	<ul> <li>Automated mixing and mastering</li> <li>Pitch correction</li> <li>Voice cloning, synthesis</li> </ul>	<ul> <li>Playlist recommendation/optimization</li> <li>Targeted marketing</li> </ul>
Audiovisual	exploration	<ul><li>Scene visualization</li><li>Script analysis</li></ul>	<ul><li>Animation generation</li><li>Special effects creation</li></ul>	<ul><li>Video editing</li><li>Colour correction</li><li>Translating/Adapting</li></ul>	<ul> <li>Content recommendation</li> <li>Audience analysis</li> </ul>

# More generally, use cases fall into 2 categories: fully automated prompt-to-output applications or assistance in the creative process



- In the market size calculation, only fully Gen Al outputs are considered, as their distribution will affect the market by replacing human-created works.
- For the **creators' loss calculation**, (i) In the music sector, fully AI-generated outputs will cannibalize creators' revenues in specific market segments; (ii) whereas in the audiovisual sector, complete AI outputs and reduced production budgets due to Gen AI tools (e.g., screenwriting, translation) will lead to revenue losses
- There is **a grey area** where semi-automated works may still be considered as human creations. The study does not aim at estimating the Gen AI contribution in human works



### Gen Al impact estimation methodology: Market size of Gen Al outputs in 2028



What will be the market size of Music and Audiovisual outputs generated by AI in 5 years (2028)?

i.e. market penetration and market value of Gen Al outputs

### Key questions to be answered

- What will be the Music and Audiovisual market segments impacted by Gen AI use cases in the next 5 years?
- What will be the penetration rate and market value of Gen Al outputs in 5 years?
- Can we expect an "Al boost" (additional growth) due to Gen Al?
- What will be the share of existing players' (distributors) revenues driven by Gen Al outputs?

### Calculation methodology

• Segmentation of the Music and Audiovisual distribution markets (both B2C and B2B – including new Gen Al based services and current distributors)



• **Estimate of 2023 market size** for all the distribution segments likely to be impacted by Gen AI outputs



Forecast to 2028 based on historical growth and market trends



Estimate of **Gen AI outputs' penetration rate** for **each segment in 2028** based on the **prioritised use cases** 



Market size of Fully Gen Al outputs by 2028



### Gen Al impact estimation methodology: Creators revenue loss due to Gen Al cannibalisation

2

Revenue loss

# What will be the associated loss of revenue for creators by 2028?

i.e. risk of cannibalisation of creators' traditional revenue streams

Key questions to be answered

- What would be the evolution of creators' revenues in the next 5 years without Gen Al? - based on current remuneration rules and historical trends
- What will be the share of this revenue at risk due to the cannibalisation or substitution of human-made works by Gen Al outputs?

Calculation methodology

#### CMO-collected revenues (for both repertoires)

- Breakdown of CISAC collections in segments and sub-segments
- Estimate of 2023 revenues for each sub-segment and forecast to 2028
- Estimate of **cannibalisation rates** due to Gen Al outputs by sub-segment



#### Other revenues (only for Audiovisual)

- Share of the production budget / dubbing-subtitling market going to audiovisual creators/authors
- Estimate of **cannibalisation rates** due to Gen Al outputs by type of author



Potential revenue loss for creators by '28 compared to a no Gen Al scenario

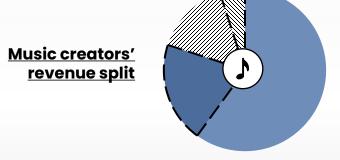
### Gen Al impact estimation methodology: Creators revenue loss due to Gen Al cannibalisation

Revenue loss

What will be the associated <u>loss of revenue</u> for creators by 2028?

i.e. risk of cannibalisation of creators' traditional, revenue streams

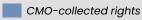
Creators' revenue streams considered for Music and Audiovisual repertoires



The perimeter of rights managed by CMOs is very homogenous between regions/geographies

- CMOs collection account for a significant share of creators' revenues
- For the Music field, the scope for the revenue loss calculation is hence the CMO-collected revenues

#### Legend

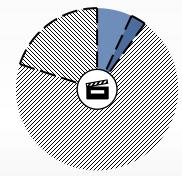


Impact of Gen AI on CMO-collected rights

**/////** Rights from upfront payments and other revenues

Gen Al impact on upfront payments and other revenues

Audiovisual creators' revenue split



- The perimeter of rights managed by CMOs is very heterogeneous between regions/geographies
- Only in a few countries do CMOs account for a large share of creators' revenues
- For the Audiovisual field, the scope has been extended to capture a better proportion of creators/authors' revenues

### Gen Al impact estimation methodology: Revenues of Gen Al services

Gen Al providers' revenues

What will be the revenues of Gen Al tools/services providers by 2028?

### Key questions to be answered

- What will be the evolution of the Gen Al ecosystem in the Music and Audiovisual fields by 2028?
- What will be the market penetration of Al-assisted music and audiovisual/video creation tools among professionals by 2028?
- How many fully Gen AI promptto-outputs tools will exist by 2028, and what will be their user base and pricing?
- What will be the overall revenue generated by both AI assistance and fully prompt-to-output tools by 2028?

### Calculation methodology

#### Al-assisted creation tools

Estimate of the professional Music and Audiovisual software markets (editing, post-production...) in 2023, forecast to 2028



Gen AI penetration rate on this segment



#### Full prompt-to-outputs tools

Number of services providing fully automated prompt-to-music tools



Forecast of the **average number of users and average revenue per user to 2028** 





### Gen Al impact estimation methodology: Revenues of by Gen Al services

Gen Al providers' revenues

What will be the revenues of Gen Al tools/services providers by 2028?

Gen Al tools and service providers have been split in 2 categories



Music

· Prompt-to-songs generator







- Prompt-to-video complete outputs generator
- · Prompt-to dubbing Gen Al providers
- Prompt-to-scripts Gen Al providers



Full prompt-to-outputs tools

- · Gen AI tools for music ideation, mastering, editing, post-production...
- · Includes Gen AI tools providing prompt-to-music as one of their services, but mainly for professionals



- · Gen AI tools for video ideation, mastering, editing, post-production...
- Includes Gen AI tools providing prompt-tovideos as one of their services, but mainly for professionals





**Approach and Methodology** 

What will be the economic impact of Generative AI in the Music field by 2028?

**Main Applications** 

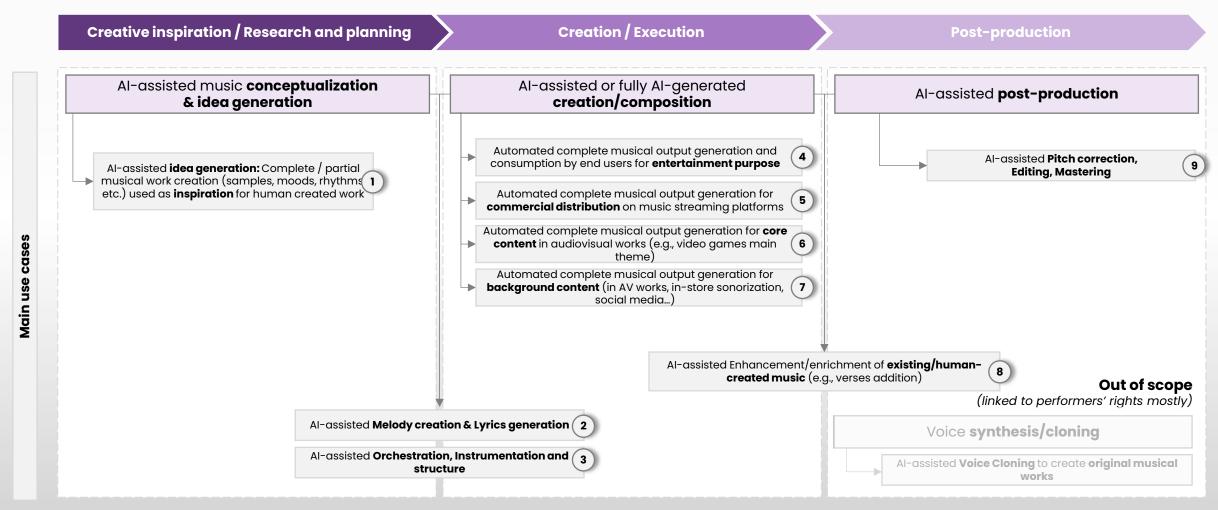
2028 forecast

What will be the economic impact of Generative AI in Audiovisual by 2028?





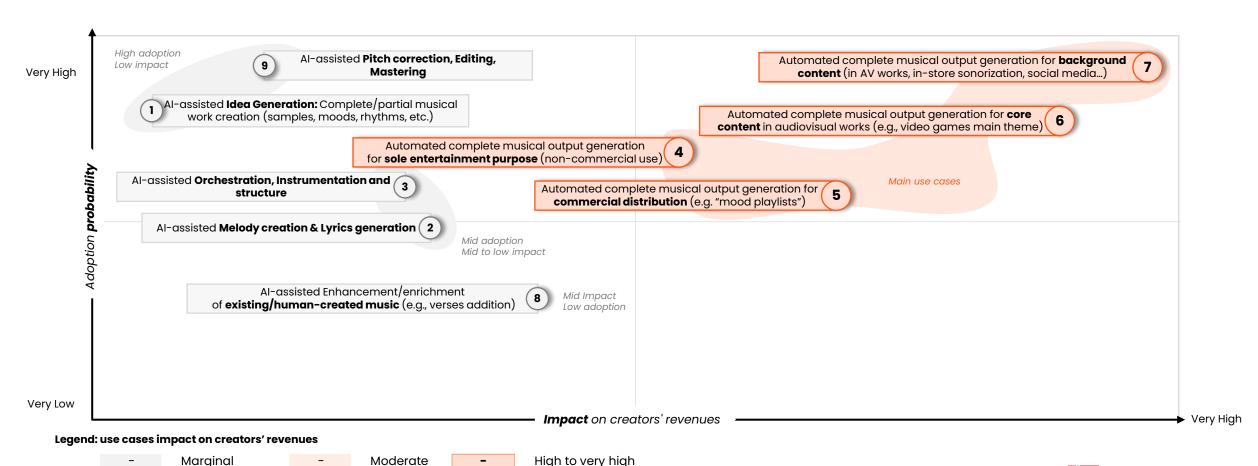
### Identification of Gen AI main applications in the music creation process





### Prioritisation of Gen Al use cases in the Music field

### Prioritisation of use cases based on expected impact on creators' revenues and adoption probability - Matrix Analysis



Study on the economic impact of Generative AI in the Music and Audiovisual industries





### Transformation of music streaming: end-users become music curators



Automated complete musical output generation for sole entertainment purpose (non-commercial use)

#### Current application

- Tools like Suno Audio, designed for the general public, allow users to generate and listen to music tracks created from a simple text prompt.
- For now, these tools are mainly used on an ad hoc basis for entertainment purposes among friends, colleagues etc.

**Current** level of adoption/maturity



- Technology & Output Quality: The tools are user-friendly and intuitive, but the quality of the outputs is still limited compared to traditional commercial music
- **Usage/Adoption:** Usage remains primarily occasional and for entertainment purposes

#### 2028 potential application

#### Two possible scenarios:

- 1. Tools like Suno and Udio evolve to become new players in the music streaming industry
- 2. Existing music streaming platforms integrate these new Al-powered content generation features themselves

2028 est. level of adoption/maturity



- Techno & quality of outputs: Improvement of the technology leading to increasingly higher-quality outputs
- Usage/adoption: Widespread adoption and a shift from occasional, ad hoc use to regular use, similar to traditional streaming platforms

Example

to AI-generated music (Suno app, see next page)



Al-powered platform allowing end-users to both produce and listen

Example of service providers

**→** Suno udio

With the perfecting and democratization of text-to-song and voice cloning tools, endconsumers are moving from simple users to music curators, thus questioning the very notion creator.

**Tech company** 

2028 main economic impacts identified

Market size Gen Al penetration

Market boost: monetization of these new features (for DSPs) or services (for AI tech companies)

**Revenue loss** 

No direct impact but dilution of human-created tracks in the overall revenues of streaming

Gen Al providers' revenues

Direct revenues for Gen Al providers, either directly providing services, or internalized in DSPs

Study on the economic impact

2028 impact on creators' revenues



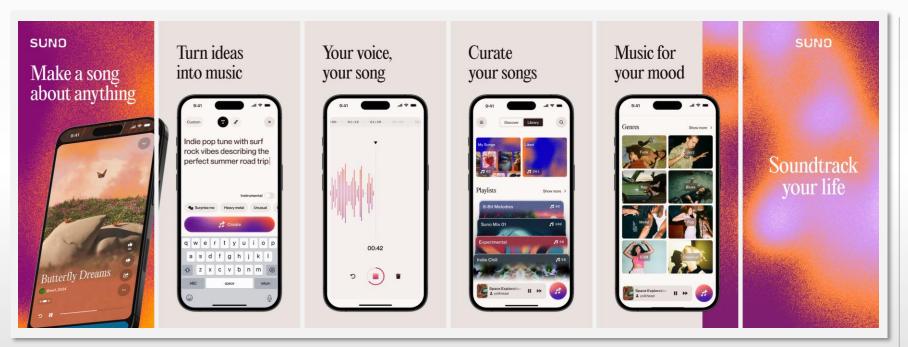




# Example - Suno's latest app launch transforms passive music listening into an interactive experience



### Suno launched its 'Suno for mobile' app in July 2024, offering enhanced functionalities



'Suno for mobile' promotion - Suno.com

I suspect that the strategy of both Suno and Udio is to become new streaming platforms. [...] where users can engage [with the content], create their own versions of it, republish it and become curators and creators themselves.

- Music and Al expert



## The Suno mobile app allows users to create and share music in new and innovative ways.

The key functionalities of the app include:

#### 1. Music Creation

- Text-to-song: users can generate songs by inputting lyrics or descriptions
- Audio recordings: The app allows the user to record an audio and use it for the song

### 2. Music Streaming

 Music curation: The app provides tools to curate and collect music that the user enjoys from other creators



### Penetration of Al-generated music on music streaming platforms

Automated complete musical output generation for **commercial distribution** (e.g. "mood playlists")

#### Current application

 Generative AI tools are already being used to create full music tracks for mainstream distribution on streaming platforms, often included in functional playlists.

**Current** level of adoption/maturity



- **Techno & quality of outputs:** Current tools can already produce good quality music for such purposes
- Usage/adoption: Usage is still limited but the adoption remains difficult to quantify

### 2028 potential application

- Al-generated music could represent a significant portion of mainstream music, particularly in functional music and passive listening through suggested playlists (mood/contextual playlists)
- DSPs might even use AI themselves to generate tracks, create and curate playlists based on user preferences and moods

2028 est. level of adoption/maturity



- · Techno & quality of outputs: Improved technology with increasingly higher-quality outputs
- Usage/adoption: high adoption potential for functional music and "passive" listening, for both individual and corporate customers

Example

Al-generated tracks produced to feed a DSP's contextual "Morning Motivation" or "Casual Run" playlist



Example of service providers



www boomy Suno udio

Generative AI represents a potential opportunity for DSPs to generate royalty-free tracks and integrate them into their playlists. This approach could significantly boost their margins by drastically reducing copyright costs. **Tech company** 

2028 Main economic impacts identified

Moderate penetration rate in volume and value on streaming platforms, particularly in mood playlists

Revenue loss

High potential cannibalisation of music creators' streaming revenues

Gen Al providers' revenues

Revenues driven by subscription fees from prompters, or by the internalization into DSPs

**Expected impact on** creators' revenues







### Example – 100% Al-generated music is already streamed on DSPs

5

Automated complete musical output generation for **commercial distribution** (e.g. "mood playlists")



### Spotify's catalogue now includes Al-generated music created and uploaded by third parties

Example of Al-generated songs on Spotify





Boomy is a platform allowing the creation of Al-generated music to be uploaded on DSPs



Boomy allows users to:

- Create and edit songs
- 2 Release created music on DSPs
- Use the musical work for :
- Non-commercial purposes in video, livestreaming, and other songs
- Commercial purposes in podcasts and social media and social media advertising
- In 2023, Boomy had created 14.4 million songs.
- The platform retains the copyright for all songs created, while users receive an 80% share of the royalty distribution fees

- Al-generated tracks are already circulating on streaming platforms, often featured in suggested playlists, with some generating substantial streams
- Tools from third-party players such as Boomy facilitate the creation and upload of these Gen Al tracks on DSP platforms
- The impact of this phenomenon, in terms of volume of tracks and streams, has yet to be quantified
- This raises questions about how platforms should handle these tracks (whether they should be tagged for user identification and/or removed)
- Managing this influx is challenging, as streaming services now receive about 1 million new songs each week



### Rise of tailored Al-generated music for social media content

Automated complete musical output generation for background content (AV works, in-store, social media...)

#### Current application

- Music generation for social media content using Gen Al-powered tools is already underway
- Platforms are already investing in this technology (e.g., TikTok, with the acquisition of Jukedeck in 2019) or developing their own tools (e.g., Meta with AudioCraft)

**Current** level of adoption/maturity



- Techno & quality of outputs: Current services can produce quality musical content for such purposes
- Usage/adoption: Mass use remains limited as these tools are not fully integrated within major social networks functionalities

### 2028 potential application

- In addition to the current prompt-to-music system, Gen Al will allow to provide instant, context-aware music for user-generated content across all social media platforms
- Platforms will continue to invest in and promote Gen Al (copyright-free) music in their music libraries for content creators

2028 est, level of adoption/maturity



- Techno & quality of outputs: Improved technology with increasingly higher-quality outputs, with tools that are already user-friendly, easy to use, and feature advanced UX
- Usage/adoption: Widespread use can be expected with the integration of AI music generation tools into major social networks

Example

A TikTok video with Al-generated music specifically tailored to the video's content



Example of service providers

Generalist players

udio → Suno

Specialized players

Loudly MSOUNDRAW

Internal tools



Jukedeck (3) AudioCraft

Thanks to Generative AI, content creators can quickly create royalty-free music perfectly suited to their YouTube videos for instance CMO

- Main economic impacts identified

larket size Gen Al penetration Very high penetration rate of Gen Al outputs in user-generated content on social media

**Revenue loss** 

High potential cannibalisation of a portion of music creators' social media revenues

Gen Al providers' revenues

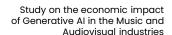
Revenues driven by B2B subscription fees and direct orders (brands, content creators...)

**Expected impact on** creators' revenues





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### Widespread adoption of Gen Al music for background content in audiovisual works or public places

Automated complete musical output generation for background content (AV works, in-store, social media...)

Current application

Gen AI tools are already used to generate **background** scores for various projects and applications (e.g., advertising, sound systems in public places etc.) but remain limited so far

**Current** level of adoption/maturity



- Techno & quality of outputs: Current tools can already produce good quality music for such purposes
- Usage/adoption: Penetration rates remain limited so far

2028 potential application • In addition to the use for background scores, Gen Al could provide customizable and context-sensitive background music services for a wide range of multimedia

2028 est, level of adoption/maturity



- Techno & quality of outputs: Improved technology with increasingly higher-quality
- **Usage/adoption:** High potential for adoption by B2B clients to reduce costs

Al-generated jingle for a TV show



Example of service providers

Loudly

MS OUNDRAW

splash 🚧

beatoven.ai



Generative AI has the potential to significantly impact background music, particularly in tasks where high volumes and quick production times are key, much like traditional music libraries. CMO

Main economic impacts identified

larket size

Very high penetration rate of Gen Al outputs in the music library market segment

Revenue loss

cannibalisation rates: replacement of human produced "production music" for B2B use

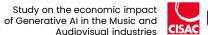
Gen Al providers' revenues

Gen Al tools' revenues driven by B2B subscription fees and direct orders

**Expected impact on** creators' revenues







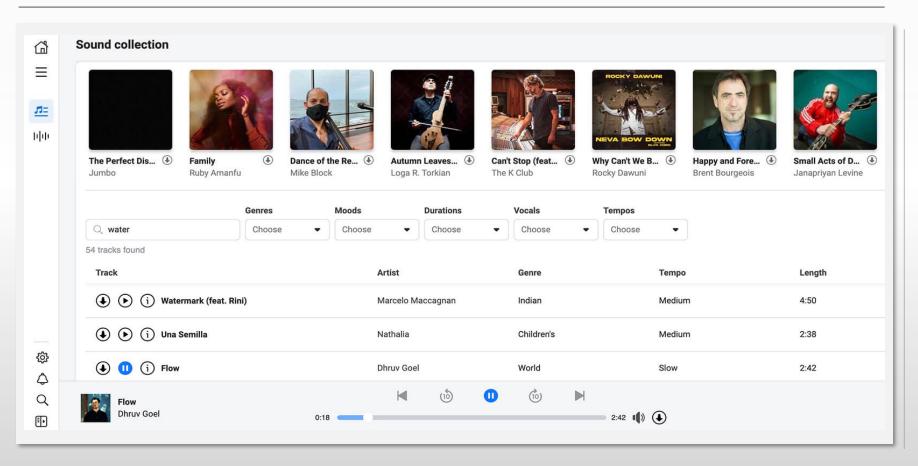


# Example - Meta invests in AI to improve its music library and enhance content creators experience

Automated complete musical output generation for background content (AV works, in-store, social media...)



### Meta's free access music library for social media posts



Meta has been active in the library music market since 2017:

 The Meta Sound Collection offers a library of Meta-owned audio clips available for free

In parallel, Meta invests in AI to expand its collection of copyright-free music content:

 In 2023, Meta launched AudioCraft, an open-source Al model allowing the generation of high-quality, realistic audio and music from text-based user inputs



### Moderate penetration of Gen Al music for core content in audiovisual works

Automated complete musical output generation for **core content** in audiovisual works (e.g., video games main theme)

**Current** application

**Very limited applications today,** with substantial musical content for audiovisual works remaining mostly commissioned compositions

**Current** level of adoption/maturity



- Techno & quality of outputs: Current services can produce quality musical content, but they are not always considered sufficient to fully replace high-impact and high-budget commissioned creations
- Usage/adoption: Use remains limited

2028 potential application

- Gen AI is used to generate outputs replacing commissioned works for core content in certain audiovisual works (lower production budget)
- In addition, Gen AI could be used for **more advanced personalization and real-time music creation** (e.g., video games)

**2028** est. level of adoption/maturity



- **Techno & quality of outputs:** Gen AI services will rapidly be able to offer highly qualitative content
- **Usage/adoption:** Expected to become a more widely used tool in audiovisual production for all application types such as series, movies, video games etc., except for high-budget projects requiring the support of famous industry names

Example

Al-generated substantial musical soundtrack for a video game production



- Example of service providers



Generative AI enables advanced personalisation and real-time music creation. In video games for instance, it can generate continuous music streams in a specific style, adapting the sound to match in-game events.

Tech Company

Main economic impacts identified —

Market size / 1 Gen Al penetration

**High penetration rate** of Gen Al outputs for background music in AV works, for cost reduction



High potential cannibalisation of revenues for audiovisual music composers (less orders / commissioned works)



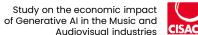
Revenues driven by B2B **subscription fees** and **direct orders** mainly from B2B producers

Expected impact on creators' revenues





33







**Approach and Methodology** 

What will be the economic impact of Generative AI in the Music field by 2028?

**Main Applications** 

2028 forecast

What will be the economic impact of Generative AI in Audiovisual by 2028?

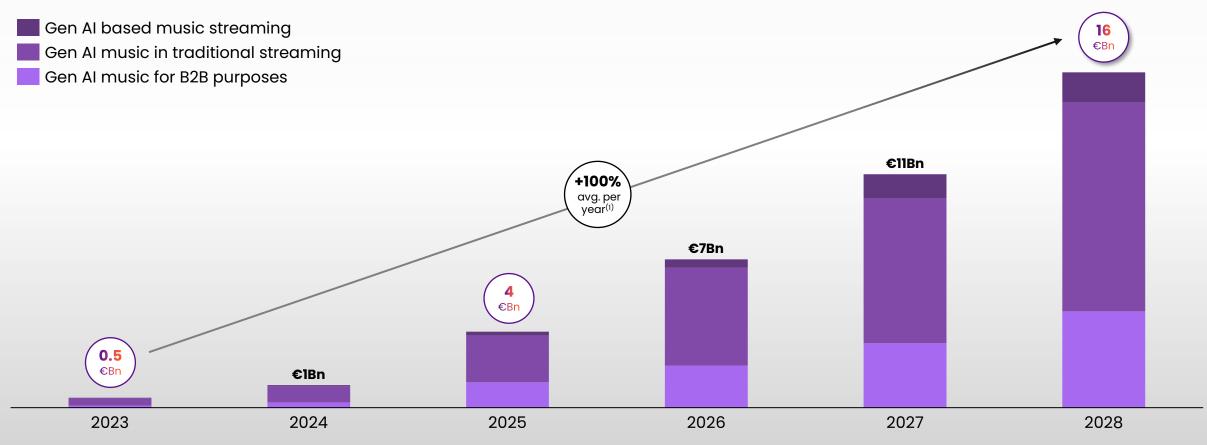




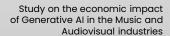
# Fully Gen AI outputs in Music are expected to be worth c.€16Bn in 2028, doubling on average each year



### Projected evolution of Gen Al music outputs market size | €Bn, 2023 - 2028



Note: In this market size calculation, no distinction is made whether the music outputs are copyrightable or not | (1) 2023-2028 CAGR





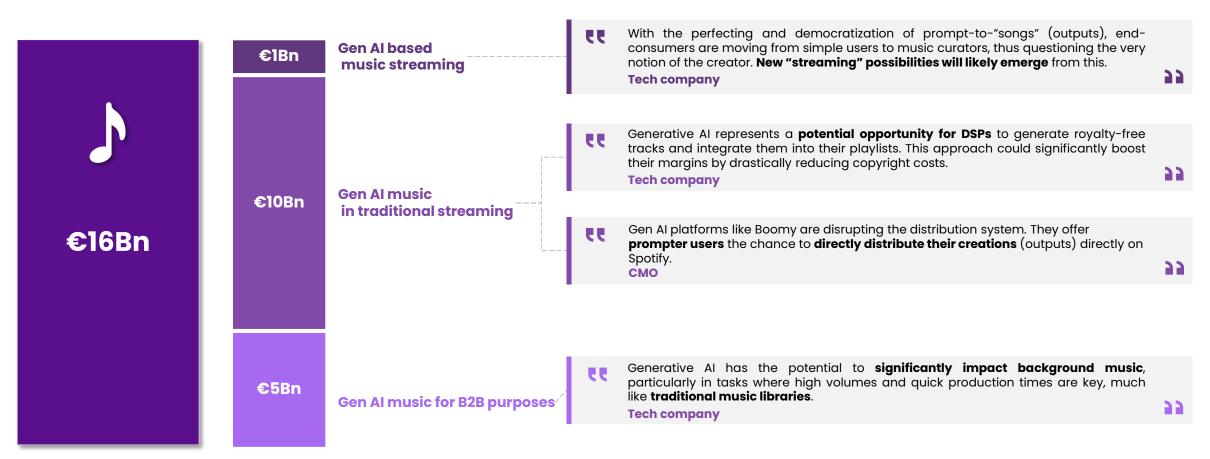


# This market will be mostly driven by Gen Al music on streaming platforms and Gen Al music for B2B purposes



Market size

Fully Gen AI music outputs market size | €Bn, 2028



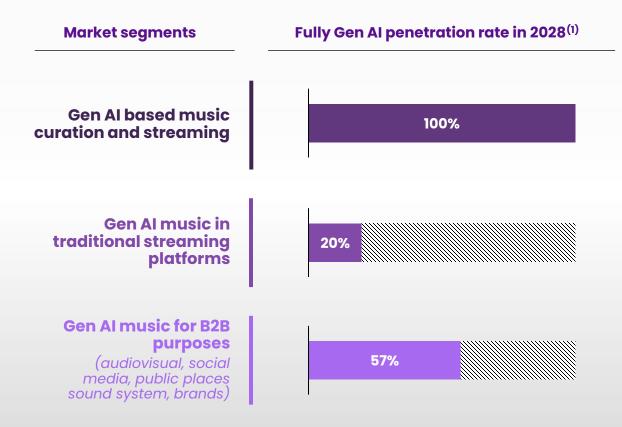
Note: In this market size calculation, no distinction is made whether the music outputs are copyrightable or not





## Market saturation will be significant on the music library segment (c.60%), with B2B clients looking to reduce costs





#### Use cases supporting the penetration of Gen Al outputs

- New services allowing both music listening and curation/creation (see associated use case)
- 2 potential scenarios: (i) Tools like **Suno** and **Udio** become **new players** in the music streaming industry, (ii) Existing music streaming platforms **integrate** and monetize these new **Gen Al features**
- Penetration of Gen AI outputs in DSPs catalogues, generated by third parties or by the streaming platforms themselves (see <u>associated use case</u>)
- High potential in mood music playlists (e.g., "Morning Coffee", "Beast Mode" on Spotify) where end-users adopt a more passive listening
- Use of fully Gen AI music for background music in audiovisual works, advertising, social media, in-store sonorization (see <u>associated use cases</u>)
- High adoption rates fostered by B2B clients looking for costs reductions and the unlimited potential of these Gen AI outputs for B2B consumers (brands, audiovisual professionals, content creators, etc...)

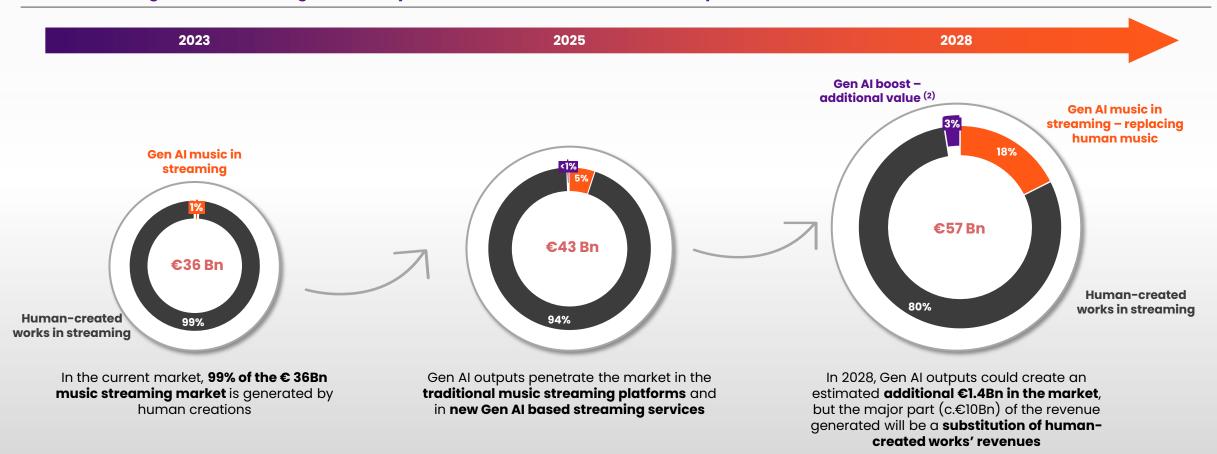




# A Gen Al boost is expected on the music streaming segment, due to new usage and functionalities which will be monetized by traditional or new players



Music streaming B2C<sup>(1)</sup> revenues, generated by human created works vs. Gen Al outputs | €Bn, 2023 - 2028



Note: <sup>(1)</sup> Music streaming platforms B2B revenues (brands, in-store sonorization...) have been excluded of this analysis (included in the B2B segment of the market size calculation) | <sup>(2)</sup> Gen AI based music platforms (new Gen AI platforms or new offers of traditional DSPs)



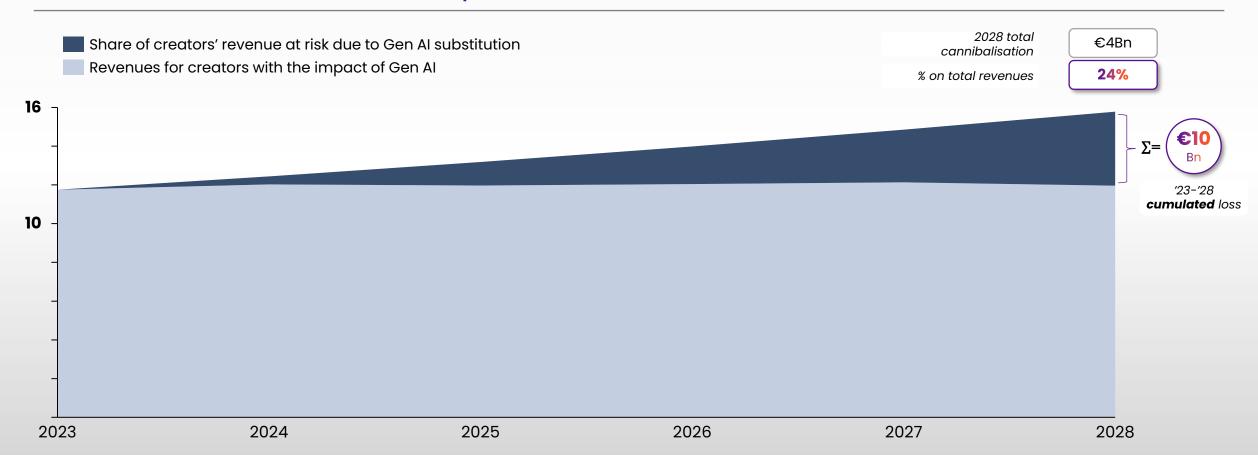
### Music 🎝

# Under current conditions, this market penetration by Gen Al outputs could put 24% of Music creators' revenues at risk by 2028

2

Revenue loss





Note: In this analysis, creators' revenues are represented by CMOs collections

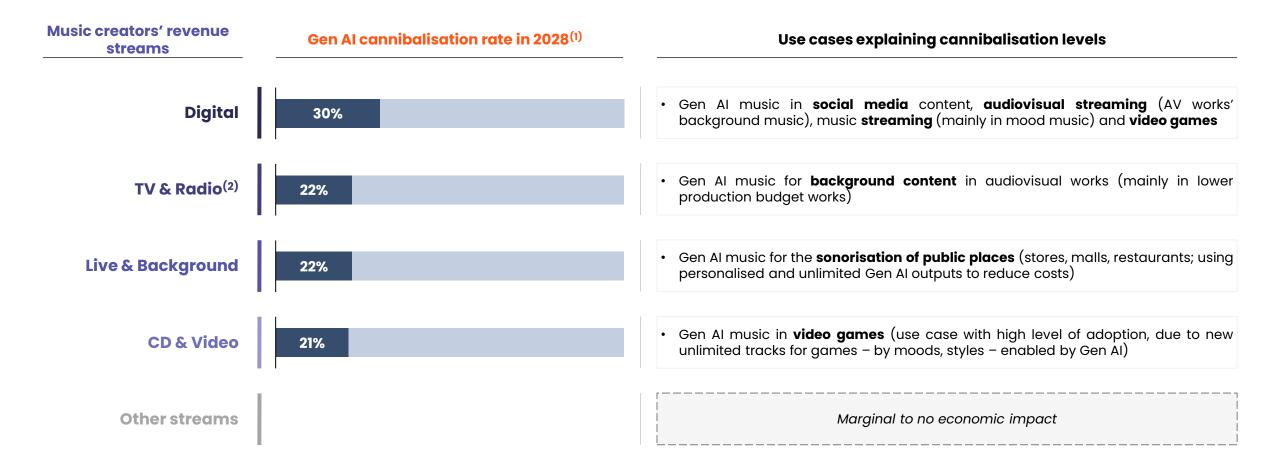




# The potential impact will be strong on Digital collections (up to 30% cannibalisation), TV & Radio and Background (c. 22% of collections)

2

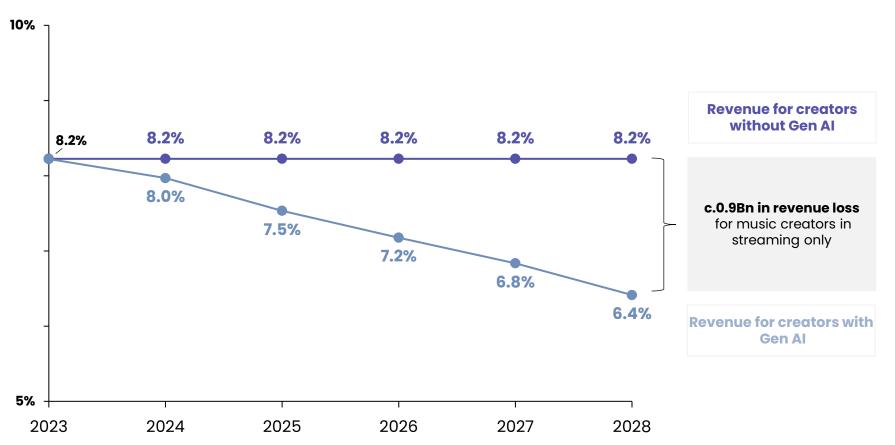
Revenue loss





### In a growing music streaming market, creators' share will thus decrease further due to Gen AI (-1.5pts)

### Music creators' revenue share in the music streaming market | €Bn, 2023 - 2028



- In 2023, the share of creators' revenue in the streaming market amounts to approximately 8%
- In 2028, this share could decrease to c.6%, on a significantly higher market
- · This dilution could represent a loss of c.€0.9Bn for creators in 2028 and a cumulated loss of c.€2.3Bn in the five coming years

Note: (1) Music streaming platforms B2B revenues (brands, in-store sonorization...) have been excluded of this analysis (included in the B2B segment in the market size calculation

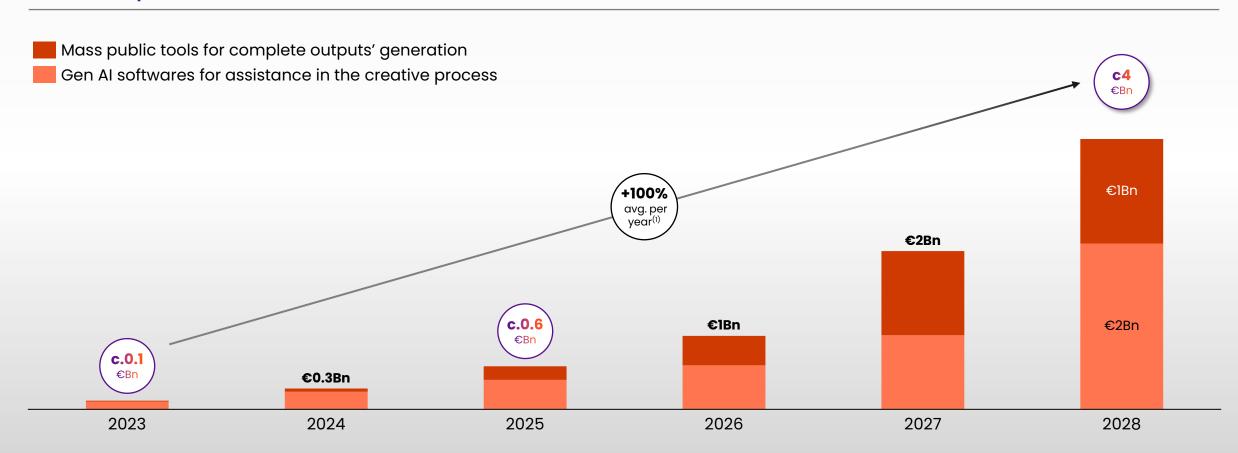


# Gen Al providers' revenues in Music could reach c.€4Bn in 2028, doubling on average each year from 2023 to 2028

3

Gen Al services revenues

Music Gen Al providers' revenues | €Bn, 2023 - 2028



Note: (1) 2023-2028 CAGR

### Study key takeaways – <u>Music</u>

1

Market size €16Bn

Estimated market value of Gen Al outputs in Music in 2028

Gen Al outputs in Music will be worth a cumulative €40Bn over the next five years, rising to an annual value of €16Bn in 2028

By 2028, Gen AI music will account for around 20% of traditional music streaming platforms' revenues and around 60% of music libraries revenues

2

Revenue loss €4Bn | 24%

Creators' revenues at risk in 2028 compared to a no Gen Al situation

Under current conditions, this market penetration by Gen AI outputs could put 24% of Music creators' revenues at risk in 2028

This represents a cumulative loss of €10Bn over the next 5 years, and an annual loss of €4Bn in 2028

2

Gen Al services' revenues €4Bn
Estimated revenues of Gen Al
Music services in 2028

Gen Al services are projected to generate exponential revenue growth, reaching an estimated €4Bn in 2028, with a cumulative total of €8Bn over 5 years

# Economic impact in Audiovisual creation

**Approach and Methodology** 

What will be the economic impact of Generative AI in the Music field by 2028?

What will be the economic impact of Generative AI in Audiovisual by 2028?

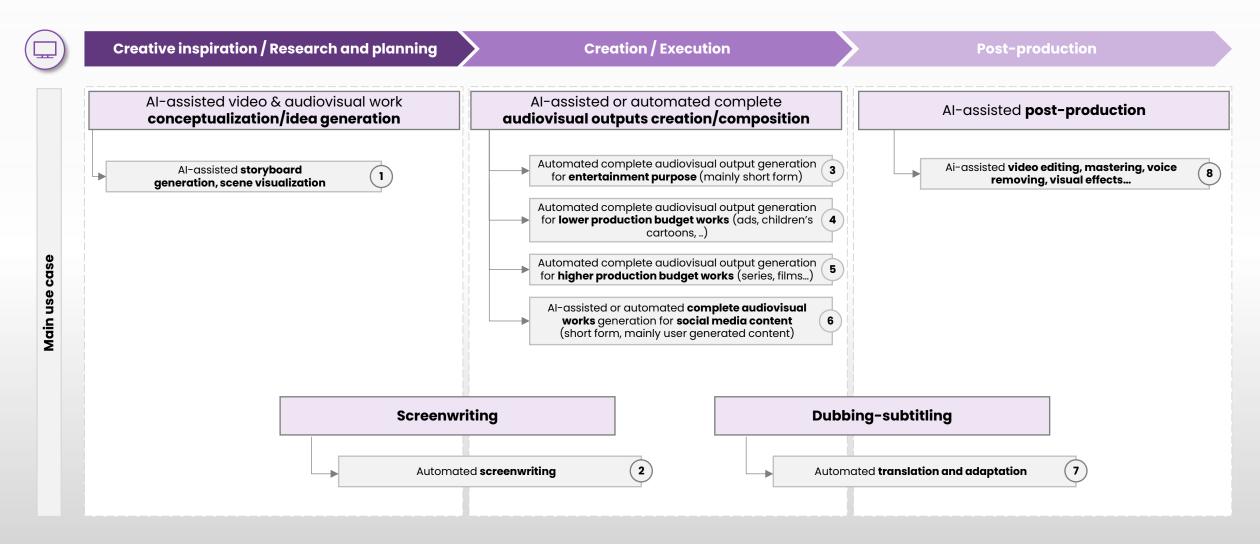
**Main Applications** 

2028 forecast





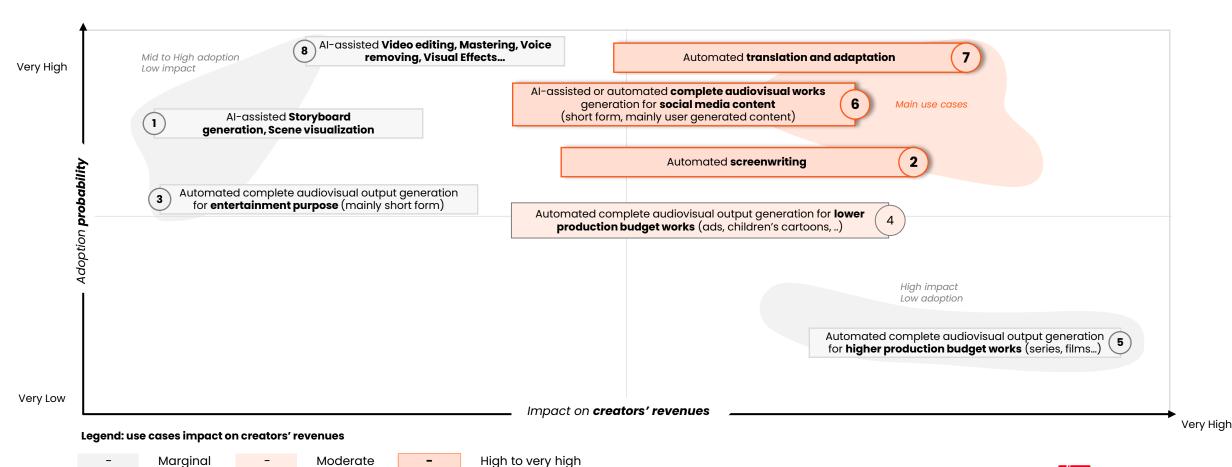
## Identification of Gen Al main applications in the audiovisual creation process





## Prioisation of Gen Al use cases in the Audiovisual field

#### Prioisation of use cases based on expected impact on creators' revenues and adoption probability – Matrix Analysis



Study on the economic impact of Generative AI in the Music and Audiovisual industries





## Widespread adoption of Gen AI tools for video content generation on social media

Al-assisted or automated complete audiovisual works generation for social media content (short form, mainly user generated content)

#### Current application

- Generation of illustrative, moderate quality videos that support and enhance various types of content
- Automating tasks like adding relevant visuals, animations, and effects, allowing them to produce engaging content more efficiently

**Current** level of adoption/maturity



- Techno & quality of outputs: Currently, Al services cannot produce complex and highly customized visuals using the prompt-to-video
- Currently, adoption is low, as the technology is still developing

2028 potential application

Generation of high quality, longer video sequences with minimal input

2028 est, level of adoption/maturity



With expected strong improvement in technology capacities, by 2028, the adoption is expected to be very high, with Al-assisted tools becoming standard in the content creation process, particularly for creators who need to produce high-quality, visually rich content on tight deadlines

Illustrative videos supporting a history-themed video on YouTube



Example of service providers Make-a-Video by 

Meta



invideo





Gen AI will democratize creation and increase user-generated audiovisual content. If technology allows it, we'll have tools enabling to create affordable, high-volume short videos for social networks which will flood the market. **Audiovisual institution** 

Main economic impacts identified

High penetration rate and market growth with the use of Gen Al video mainly for content creators

**Revenue loss** 

High cannibalisation of creators' revenues from traditional video production services

Gen Al providers' revenues Revenues driven by subscription fees from content creators and other social media users

**Expected impact on** creators' revenues









## Improving technology for the automation of translations and adaptations

Automated translating/adapting

#### Current application

- Automatina translation. subtitles speech synchronisation and voice dubbing generation
- · Application is currently focused on non-substantial video due to technology capacity

**Current** level of adoption/maturity



- Techno & quality of outputs: Currently, Al services can produce complex and highly customized visuals using the prompt-to-video method
- Currently, adoption is low for complex and high-quality audiovisual works but is high for lower value content

2028 potential application

High-quality real-time translations and lip-syncing that are indistinguishable from human performance

2028 est, level of adoption/maturity



By 2028, adoption is expected to be very high, with automated dubbina and subtitlina becoming more qualitative and therefore a standard practices in the industry, particularly for streaming platforms and global content distributors.

Gen Al automated subtitling for a documentary production



- Example of service providers







If the technology improves, Gen AI could be used to produce high-quality content. However, as of now, automated subtitling and dubbing are still limited to low added-value applications.

**Dubbing and Subtitling Agency** 

· Main economic impacts identified

Market size Gen Al penetration High penetration rate of Gen Al DB/ST; potential shrinking of the overall market (cost reduction)

**Revenue loss** 

High cannibalisation of revenues for DB/ST authors and less orders for DB/ST agencies

Gen Al providers' revenues

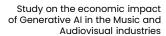
Revenues driven by subscription fees from audiovisual producers for DB/ST works

**Expected impact on** creators' revenues





33







## Generative AI as an assistant and/or a substitution for screenwriting in audiovisual works

Automated screenwriting

Current application

Current tools allow to automate / facilitate a number of tasks related to scriptwriting: scenario analysis, research, rewriting, ...

**Current** level of adoption/maturity



- Techno & quality of outputs: easy to use tools
- · Currently, adoption is still pretty low as tools are mostly used for assistance / idea generation or rewriting

2028 potential application

· The progress of tools will allow to generate more quality scripts and automate the full generation of scenarios for certain contents

2028 est, level of adoption/maturity



By 2028, adoption is expected to be very high especially on lower production value segments, with AI tools allowing to create ever more complex stories based on specified criteria

Fully Gen AI automated screenwriting for a TV soap opera



- Example of service providers



**GENARIO** 

The main concerns about the impact of Gen AI often arise from screenwriters among our members: the profession is likely to be heavily impacted in the coming years. **Audiovisual CMO** 

Main economic impacts identified

Market size

High penetration rate of Gen Al scripts; potential shrinking of the overall market (cost reduction)

Revenue loss

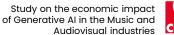
High cannibalisation of revenues for screenwriters as Gen Al scripts become more cost-effective

Gen Al providers' revenues Revenues driven by subscription fees from audiovisual producers for screenwriting works

**Expected impact on** creators' revenues











## Rise of Gen AI content for lower budget audiovisual productions, fostered by producers' willingness to gain efficiency

Automated complete audiovisual output generation for lower production budget works (ads, soap opera...)

#### Current application

- First creations of entire audiovisual outputs in animated fiction films & series
- · Ads or Music clips generation, with enhanced possibilities but mid production quality

**Current** level of adoption/maturity



- Techno & quality of outputs: Currently, Al services cannot produce quality audiovisual content
- Currently, adoption is low, due to the poor quality of Al-automated audiovisual outputs generation

#### 2028 potential application

- High-quality audiovisual content that is indistinguishable from human-made productions
- Potential seamless integration into some audiovisual production sectors (soap operas, advertising, music clips, animated works...)

2028 est, level of adoption/maturity



Mid- to high adoption, depending on the evolution of the quality of the audiovisual content/output

Example

Extract of Qianqiu Shining, China Media Group Al-generated animated series in 2022



- Example of service providers





Adoption depends on the technology's capabilities. Currently, producing a high-quality audiovisual work from start to finish, especially a two-hour film, is beyond reach, while it is already feasible for a short-animated film. **Audiovisual institution** 

– Main economic impacts identified

larket size Gen Al penetration High penetration rate of Gen Al; shrinking of the traditional market (cost reduction)

**Revenue loss** 

Very high impact on audiovisual creators/authors due to productions' budget decrease

Gen Al providers' revenues

Revenues driven by B2B subscription fees from audiovisual production companies

**Expected impact on** creators' revenues





33



# Economic impact in Audiovisual creation

**Approach and Methodology** 

What will be the economic impact of Generative AI in the Music field by 2028?

What will be the economic impact of Generative AI in Audiovisual by 2028?

**Main Applications** 

2028 forecast

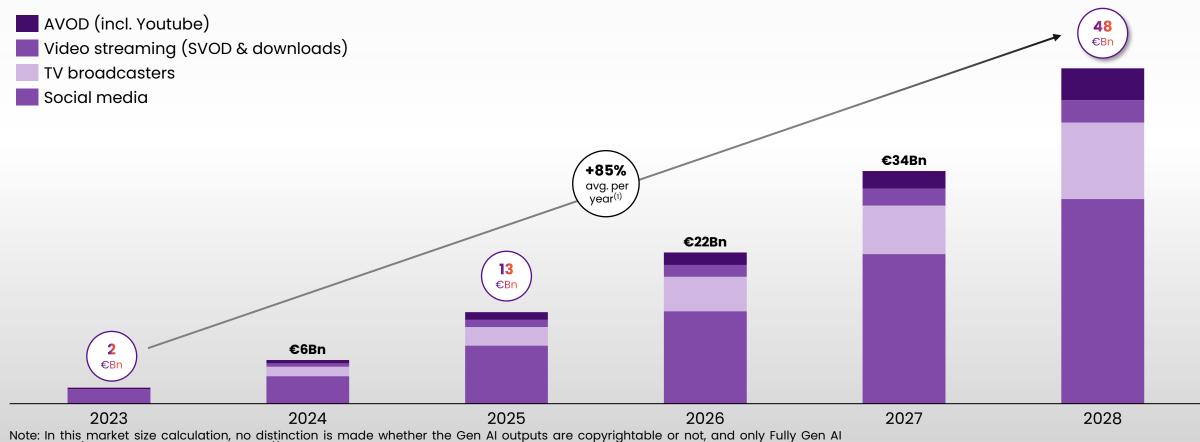




# Fully Gen AI audiovisual outputs are expected to be worth c.€48Bn in 2028, with an average growth of c.85% each year



#### Projected evolution of Gen Al audiovisual outputs market size | €Bn, 2023 - 2028



Note: In this market size calculation, no distinction is made whether the Gen AI outputs are copyrightable or not, and only Fully Gen AI audiovisual/video outputs are considered | (1) 2023-2028 CAGR

Study on the economic impact of Generative AI in the Music and Audiovisual industries





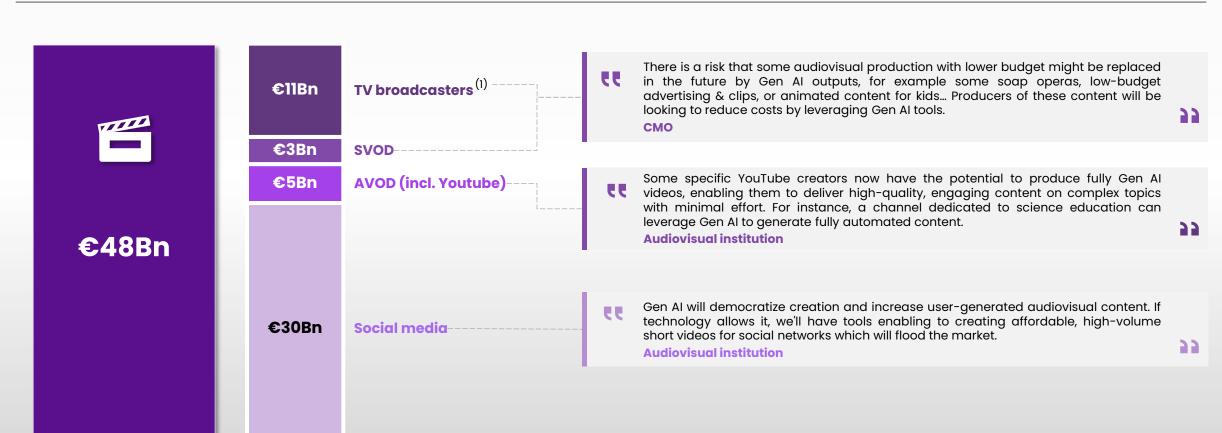


# The market will be mostly driven by the penetration of Gen Al outputs on social media and in lower production value TV programmes



**Market size** 

Fully Gen Al audiovisual outputs' market size | €Bn, 2028



Note: In this market size calculation, no distinction is made whether the Gen AI outputs are copyrightable or not | (1) includes SVOD, FAST, Pay-per-view, EST (downloads)





# Market saturation by Gen AI complete audiovisual outputs will remain more limited than for Music



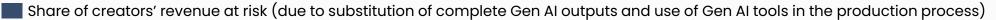
Market segments	Fully Gen Al penetration rate in 2028 <sup>(1)</sup>	Use cases supporting the penetration of Gen Al outputs
TV Broadcasters	4%	<ul> <li>Leveraging of Gen AI content to produce lower budget and more personalized programmes (lower budget TV shows, advertisings, kids animated,) allowing to keep up with audience demand at reduced costs</li> </ul>
SVOD	2%	Penetration of Gen Al audiovisual outputs in SVOD platforms catalogues
AVOD	8%	Use of Gen Al tools to produce audiovisual outputs for <b>short and viral content on AVOD platforms</b> (mainly YouTube)
Social media	13%	<ul> <li>Use of Gen AI tools to automate the generation of short form videos on social media, and produce engaging and personalized content more efficiently by adding relevant visuals, animations, and effects</li> </ul>

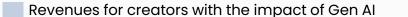


#### Revenue loss

## The use of Gen AI tools to automate tasks in the production process could put 21% of audiovisual creators' revenue at risk by 2028

Revenues for Audiovisual creators with and without the impact of Gen AI outputs | €Bn and %, 2023 - 2028



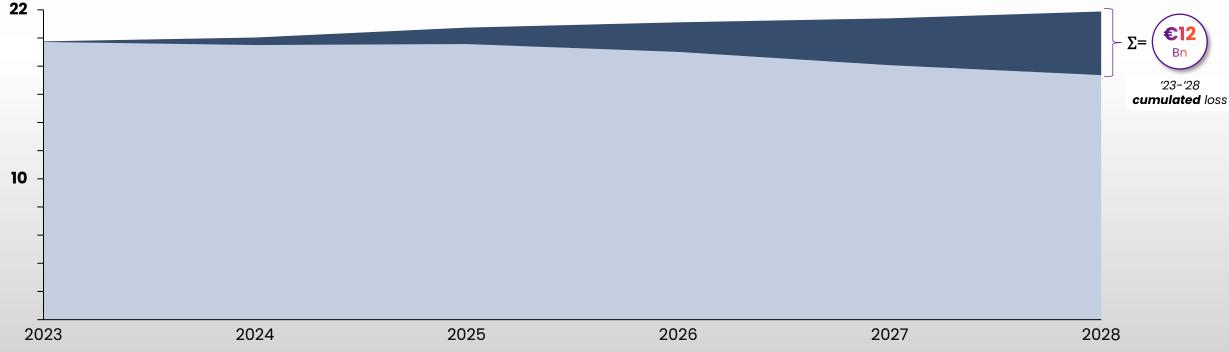


2028 total cannibalisation

% on total revenues



€4.5Bn



Note: In this analysis, revenues include both CMOs collections and other revenue streams (upfront payments)

Study on the economic impact of Generative AI in the Music and Audiovisual industries

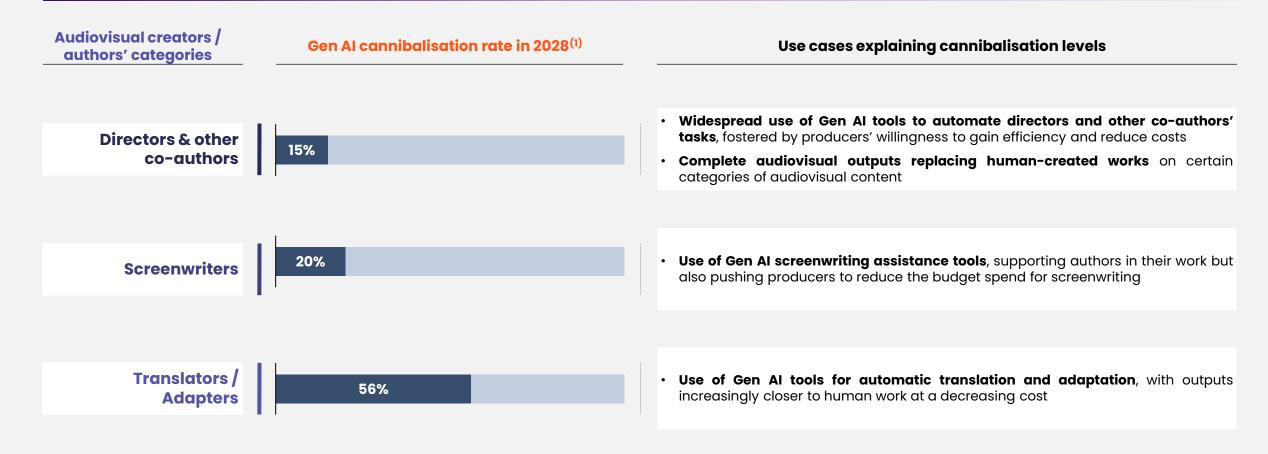


'23-'28



# The potential impact will be particularly strong for Translators and Adapters (c.56% of cannibalisation rate)

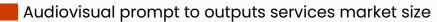




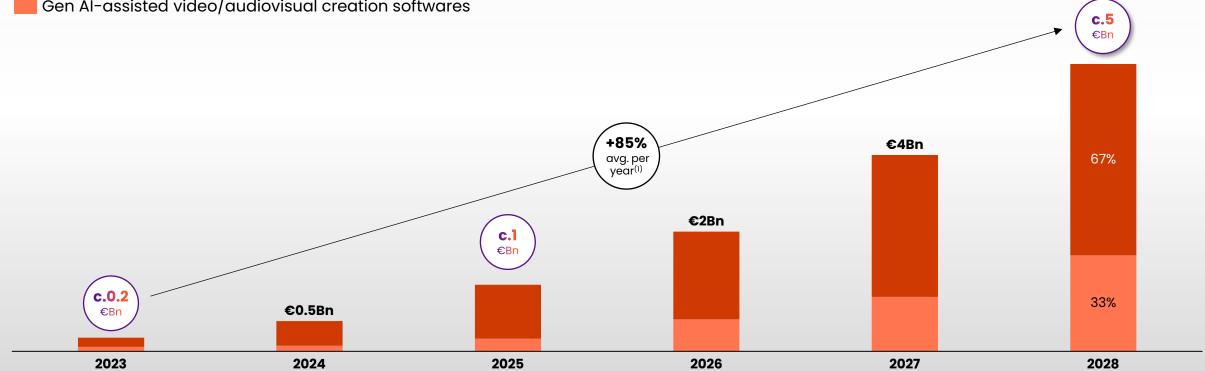


# In Audiovisual, Generative AI providers' revenues could reach €5Bn in 2028, driven by Gen AI prompt-to-outputs tools

#### **Audiovisual Gen Al providers' revenues** | €Bn, 2023 - 2028







Note: (1) 2023-2028 CAGR



#### Study key takeaways – <u>Audiovisual</u>

1

Market size

€48Bn

Estimated market value of Gen Al outputs in Audiovisual in 2028

Al-generated complete Audiovisual outputs are expected to be worth c. €48Bn in 2028.

Audiovisual outputs generation for social media and TV will account for the lion's share of the market.

2

Revenue loss €4.5Bn 21%

**Audiovisual creators' revenues at risk in 2028** (compared to a no Gen Al situation) The widespread use of Gen AI tools throughout the production process of audiovisual works could put 21% of creators' revenue at risk by 2028.

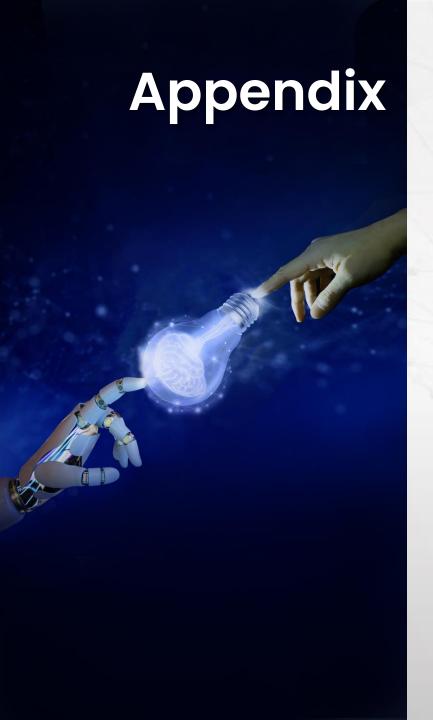
This represents a cumulative loss of €12Bn over the next 5 years, and an annual loss of €4.5Bn in 2028.

2

Gen Al services' revenues €5Bn

Estimated revenues of Gen Al Audiovisual services in 2028

Gen AI services in Audiovisual (both mass public and professional tools/softwares) are projected to generate exponential revenue growth, reaching an estimated €5Bn in 2028, with a cumulative total of €13Bn over 5 years.



Detailed methodology and assumptions – Music

Glossary

**Detailed list of interviews conducted** 

PMP Strategy presentation



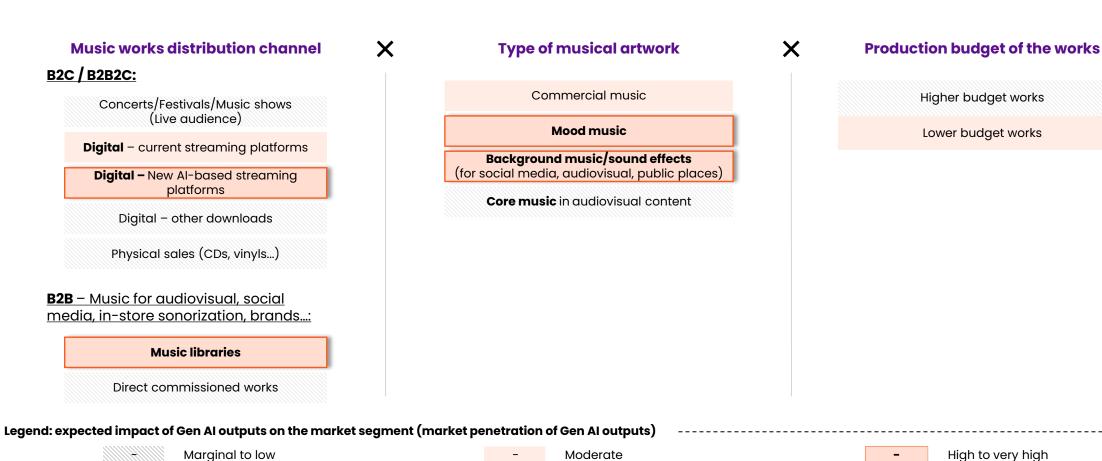


# Use cases analysis has allowed to identify the Music market segments most likely to be impacted by Gen Al in the next 5 years



Market size

Market segmentation and impact of Gen Al use cases done by crossing 3 dimensions





# For each of these segments, a Gen AI penetration rate has been estimated based on use cases expected adoption and impact (from low to very high)



Market size

		size and 2028 fore s impacted by Ge		×		Fully Gen AI outputs Penetration rate in 2028	2028 Fully Gen Al music outputs' market size
		<u>'23 market size</u>	'28 forecasts			Weighed penetration rates considering :	
BC2	New Gen Al music streaming platforms <sup>(1)</sup>	<0.1Bn	1.4Bn		100%	<ul> <li>New Gen AI based streaming platforms allowing listeners/users to curate and listen to Gen AI music and/or new offers in current streaming platforms</li> </ul>	€1.4Bn
B2C/B2BC2	Music streaming platforms	€36Bn	€55Bn		20%	<ul><li>Commercial music</li><li>Mood music</li></ul>	€10Bn
B2B	Music libraries <sup>(1)</sup> - for <b>audiovisual</b> , social <b>media</b> , public places <b>sonorization</b> , <b>brands</b>	€5Bn	€7.8Bn		57%	<ul> <li>Licensed music – commercial/preexisting tracks</li> <li>Licensed music – background/sound effects</li> <li>"Royalty free" music (buy out)</li> </ul>	€4.5Bn
						Total Gen Al market size for musical outputs	c. €16Bn

- We consider here the "public price" of music for B2B clients buying / commissioning musical works for audiovisual content, public places sonorization, etc.
- The impact on the value driven by the diffusion of this music in audiovisual works (by SVOD platforms, TV/Radio broadcasters) is considered as part of question 2/
- The market size calculation includes **royalty-free** music content



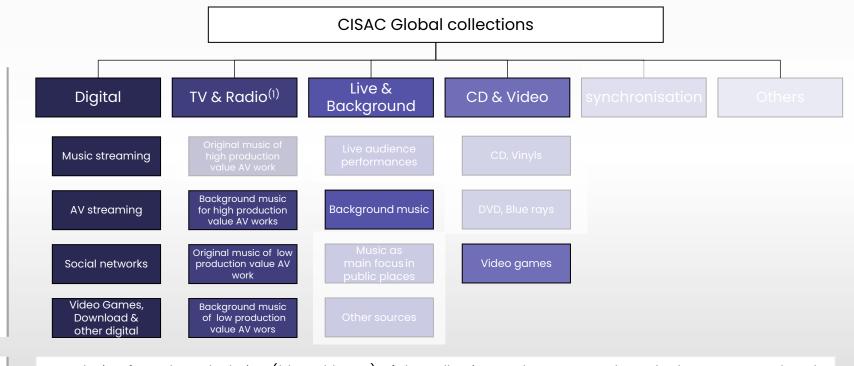


# Revenue cannibalisation for Music creators has been calculated based on a segmentation of the global CMOs collections

2

Revenue loss

#### Music market segmentation on segments impacted by AI generated outputs



#### **Key methodology insights**

- Segmentation approach to measure Al outputs' cannibalisation on creators' revenues:
  - Breakdown of CISAC 2023 global Music collections by categories (e.g Digital) and subsegments (e.g Music streaming platforms, SVOD platforms, Social networks, etc.)
  - 2028 collections forecast for each subsegment based on historical growth rates and future market trends
  - For each subsegment: estimated cannibalisation rate in 2028 based on use cases and market estimates conducted as part of question 1/

Rationale

Collections segmentation by use

- Exclusion from the calculation (*blurred boxes*) of the collections' subsegments where the human created works are unlikely to be replaced by AI:
  - E.g. : it is estimated that the music used for live shows will remain predominantly human-created, as the audience always associates itself with a musician when attending a live event

Note: <sup>(1)</sup> Segmentation of this category crossing the type of audiovisual content on which it is played and the importance of the music in the AV work

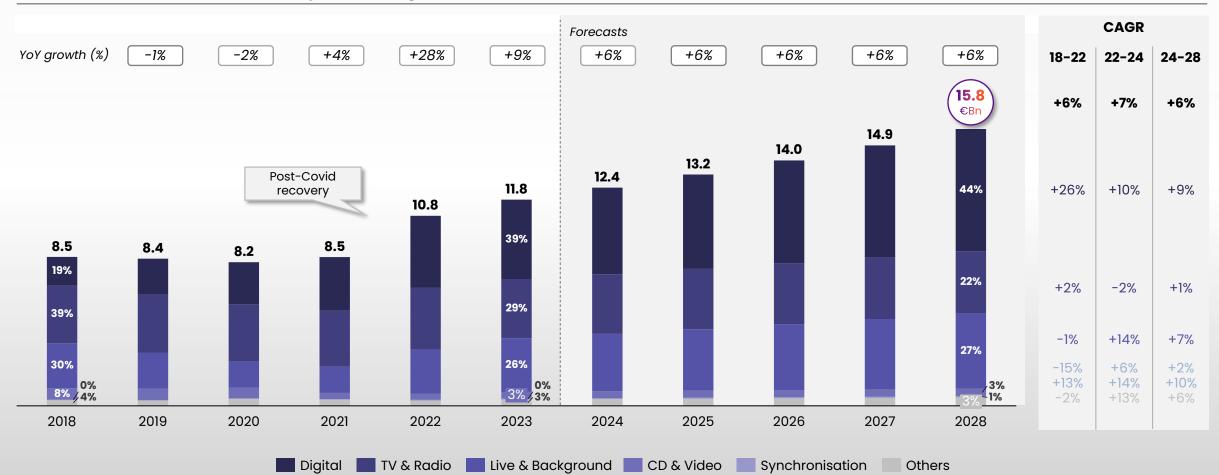


# Based on historical growth and future market trends, CISAC collections for Music are expected to reach c. €15.8Bn by 2028

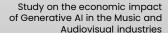
2

Revenue loss

#### CISAC Music collections evolution by music usage in current market evolutions | €Bn, 2018-2028



Note: Forecasts CAGR based on historical collections and upcoming trends





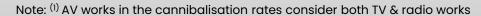


# To estimate the revenue loss for Music creators, key assumptions have been made on Gen Al cannibalisation rates by collections subsegments

2

Revenue loss

Revenue sub-streams <sup>(1)</sup> , 2023 collections and 2028 orecasts		_ X	Gen Al o	utputs 2028 cannibalisation rates	2028 revenue loss for creators	
	<u>'23 collections</u>	'28 forecasts			Weighed cannibalisation rates considering :	
Digital	€4.5Bn	€6.9Bn		30%	<ul><li>Music streaming</li><li>AV streaming</li><li>Social media</li><li>Video Games</li></ul>	€2Bn
TV & Radio <sup>(1)</sup>	€3.4Bn	€3.5Bn		22%	<ul> <li>Original music for higher budget AV works/ music tracks on radio</li> <li>Background music for higher budget AV works</li> <li>Original music for lower budget AV works</li> <li>Background music for lower budget AV works</li> </ul>	€0.7Bn
Live & Background	€3.1Bn	€4.2Bn		21%	<ul> <li>Live audience performances</li> <li>Music as main focus in a live audience (clubs)</li> <li>Background music (sonorization of public places)</li> </ul>	€0.8Bn
CD & Video	€0.4Bn	€0.4Bn		21%	<ul><li>CD, Vinyls</li><li>DVD, Blue-rays</li><li>Video games</li></ul>	€0.1Bn
Other sub- streams	€0.3Bn	€0.7Bn			Marginal to no impact	
Total collections	€11.8Bn	€15.8Bn			Total revenue loss for music artists in 2028	<b>c. €3.8Bn</b> (24%)





music artists in 2028

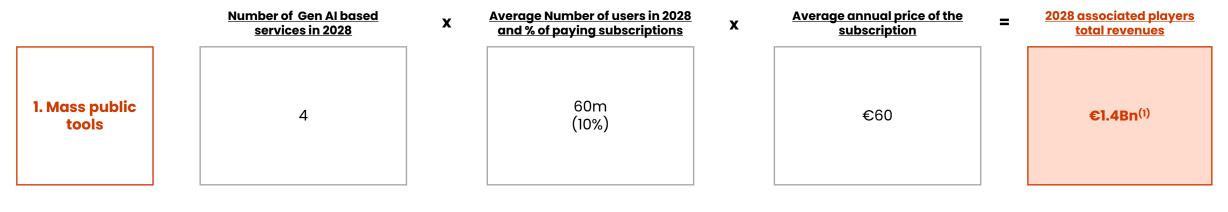


# Gen Al tools providers have been segmented in 2 categories to assess their revenues

3 <sup>G</sup>

Gen Al services revenues

#### Music Gen Al tools providers' revenues - 2023-2028, €Bn



Audio/Music software market size

2023

2028

2028

2028

2028

2028

2028

2028

2028

2028

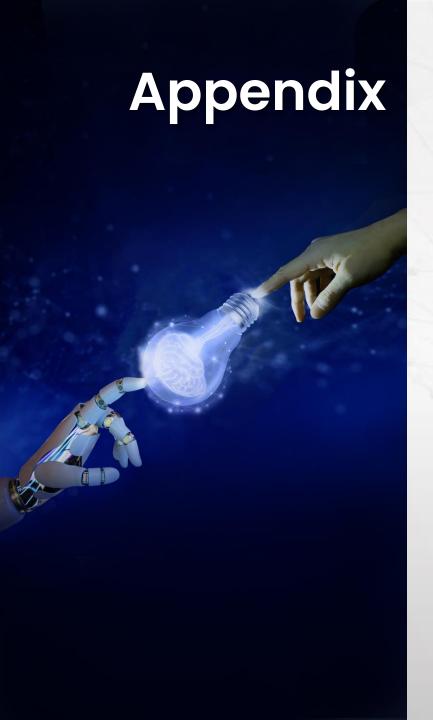
60% / High

€2.3Bn

Note: <sup>(1)</sup> Calculated in question 1, representing new AI based streaming platforms (and described as the use case: end-user as curators) | <sup>(2)</sup> High growth rate as new services (providing both prompt-to-outputs and assistance in the creation – such as Boomy and Beatoven) will lead to revenue growth on the market







Detailed methodology and assumptions – Audiovisual

Glossary

**Detailed list of interviews conducted** 

PMP Strategy presentation





## Use cases analysis has allowed to identify the Audiovisual market segments most likely to be impacted by Gen Al in the next 5 years



Market size

Audiovisual market segmentation(1) and impact of Gen Al use cases done by crossing 3 dimensions

X

# channels/media Cinema TV broadcasters Radio broadcasters Digital - AVOD Digital - SVOD Digital - Social Media Physical sales (DVD, Blue-ray, ...)

**Audiovisual works distribution** 

Type of audiovisual content **Complete Audiovisual content:** Films / Series TV magazines/TV news/weather/ sports event Animated works/Kids shows Soap Opera Music clips Advertising Short forms / User-generated content

the programmes Higher budget works Lower budget works Flow programmes\* Stock programmes\*

Artistic value of the works / Nature of

Legend: expected impact of Gen AI works on the market segment (market penetration of Gen AI works)

High to very high

Note: (1) Audiovisual market excluding audio podcast and video games



<sup>\*</sup> Stock programs can be rebroadcast (e.g., fiction, documentaries), while flow programs are usually aired once (e.g., news, sports, games)



# For each of these segments, a Gen Al penetration rate has been estimated based on use cases expected impact (from low to very high) <u>– Focus on complete AV outputs</u>



**Market size** 

2023 market size and 2028 forecasts on segments impacted by Gen Al		×	Fully Gen AI artworks Penetration rate in 2028		2028 Fully Gen AI AV works' market size	
	<u>'23 market size</u>	'28 forecasts			Weighed penetration rate, including <sup>(1)</sup> :	
TV broadcasters	€327Bn	€298Bn		4%	<ul> <li>Flow programmes of which news, weather, feature stories)</li> <li>Flow programmes of which sports events, games</li> <li>Ads &amp; clips (lower budget works)</li> <li>Stock programmes – of which films, series</li> <li>Stock programmes – of which kids animated works</li> </ul>	€llBn
Digital - SVOD	€107Bn	€161Bn		2%	<ul> <li>Higher budget AV works (films for cinema)</li> <li>Lower budget complete AV works (daily soap opera, reality TV)</li> <li>Animated works/Kids' content</li> </ul>	€3Bn
Digital - AVOD	€37Bn	€60Bn		8%	<ul> <li>Music/covers videos</li> <li>Educational/tutorial</li> <li>Gaming videos</li> <li>Corporate videos</li> <li>Others (incl. vlog, comedy)</li> </ul>	€4.5Bn
Digital - Social Media	€186Bn	€230Bn		13%	<ul> <li>Short form videos (Reels, TikTok)</li> <li>Long-format videos</li> </ul>	€30Bn

Total Gen Al market size for complete audiovisual productions



Disclaimer: Market size including royalty-free audiovisual content (mainly videos)







## Revenue cannibalisation for creators has been calculated based on a segmentation of Audiovisual global collections

#### Audiovisual collections segmentation and identification of segments on which Al impact is marginal



- Exclusion (or marginal impact on the total) from the calculation of the collections' subsegments where the AI generated works are unlikely to be cannibalized by Gen AI (blurred boxes):
  - E.g., (i) Marginal impact on radio collections as few collections from radio components likely to be impacted by AI (audio podcasts) (ii) Private copying works may shrink due to shrinking of global revenues but collections will still be from human creations

#### **Key methodology insights**

- collections 1. Isolation for of translators/adapters and screenwriters, and calculation of the revenue loss of these categories based on cannibalisation rates assumptions for each AV works represented
- 2. For the other works (complete audiovisual outputs): Bottom up & Top-down approach to calculate the potential revenue loss for complete audiovisual outputs:
  - Breakdown of CISAC 2023 global collections audiovisual categories and subsegments
  - 2028 collections forecast for each subsegment based on historical arowth rates and future market trends
  - Estimation of Gen Al outputs' works cannibalisation rate in 2028 based use cases and market estimates conducted as part of question 1.

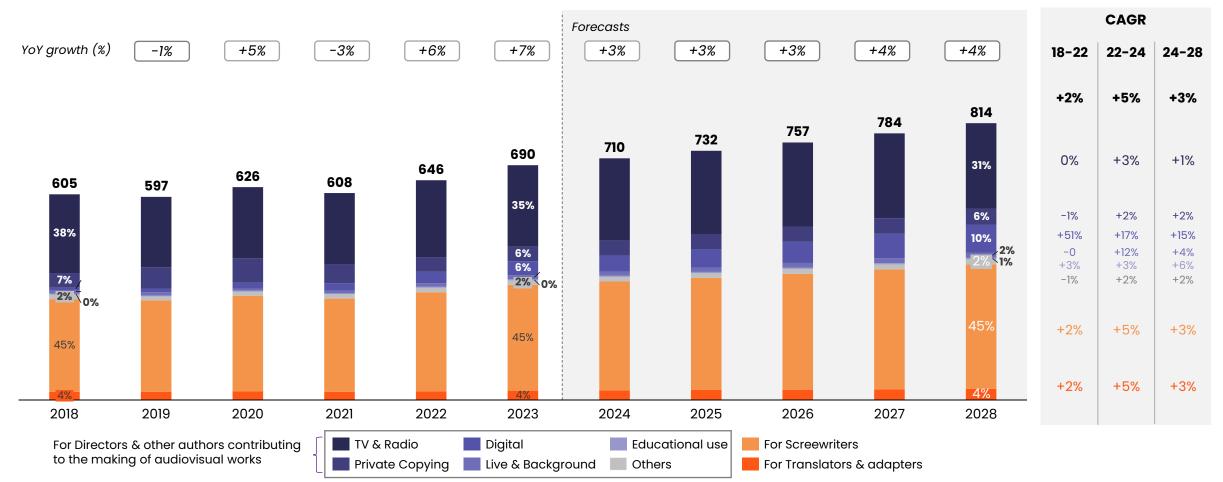




# Based on historical growth and future market trends, CISAC collections for Audiovisual are expected to reach 814m by 2028, with a 24-28 CAGR of c.3%

loss

#### CISAC audiovisual's collections evolution by categories/revenue streams in current market evolutions | €m, 2018-2028





# The revenue loss for <u>directors and other authors contributing to the making of the AV works</u> has been estimated by applying 2028 estimated cannibalisation rates

2

Revenue loss

Revenue sub-streams forecasts	<sup>(1)</sup> , 2023 collection	ns and 2028	x	Gen Al works 2028 cannibalisation rates	2028 revenue loss for creators
	<u>'23 collections</u>	'28 forecasts	<u>Weigh</u>	ed penetration rate, including <sup>(1)</sup> :	
TV & Radio	€240m	€252m	<ul><li>4%</li><li>Ads</li><li>Sto</li></ul>	v programmes of which news, weather, feature stories v programmes of which sports events, games s & clips (lower budget) ck programmes – of which films, series ck programmes – of which kids animated works	€9m
Digital	€4lm	€82m	<b>5%</b> • SVC	DD: (weighed penetration rate from market) DD & digital TV cial media	€4m
Live & Background	€12m	€15m	<b>30%</b> (co	ekground audiovisual works nsidered as highly at risk as Gen AI will enable to broadcast imited content in public places, stores)	€5m
Other sub- streams	€59m	€66m		Marginal to no impact	
Total collections	€352m	€415m		Total revenue loss for <u>directors &amp; other</u> authors contributing to the making of audiovisual works	<b>c. €19m<sup>(1)</sup></b> (5%)

Note<sup>: (1)</sup> Includes cannibalisation for <u>educational use</u> (potential replacement for tutorials, webinars...) resulting in a €1m revenue loss





# The revenue loss for <u>translators/adapters</u> and <u>screenwriters</u> have been estimated based on a forecast of 2028 revenues and the application of cannibalisation rates

2

Revenue loss

2028 revenue loss Gen Al works 2028 cannibalisation rates '23 revenue sub-streams and '28 forecasts for creators '23 collections '28 forecasts Translation / cannibalisation rate equivalent to the weighed penetration rates from €13m €28m €33m market size calculations Adaptation **Total revenue loss** c. €13m for translators/adapters cannibalisation rate equivalent to the weighed penetration rates from Screenwriting €311m 19% €70m €366m market size calculations **Total revenue loss for screenwriters Total collections** Total revenue loss in 2028 for (incl. the three €690m €814m audiovisual creators categories)



## Additional Revenue loss calculation for <u>screenwriters</u>, <u>directors</u> & <u>other co-authors</u>





'23 AV production market size (budget) and '28 forecasts

X

Share of main segments going to AV creators

X

Gen Al '28 cannib. Rates by segments

=

'28 creators' revenue loss (and %)

'23 market size

'28 forecasts

€209Bn

€229Bn

Includes streamers & broadcasters original content spending, public fundings and fiscal incitation (i.e., includes also independent production)

For directors & other co-authors

c.4-5%

For screenwriters

c.4-5%

Includes upfront payment and contingent payment from producers

For directors & other co-authors

15%

- Unscripted works
- Higher production budget
- Lower production budget
- Animated works

For screenwriters

20%

- Higher production budget
- Lower production budget
- Animated works

€1.9Bn

В

€1.2Bn



# Additional Revenue loss calculation for authors of <u>audiovisual translations</u>, <u>adaptations and subtitles</u>



Revenue loss

'23 worldwide (non CMO-collected) revenues and '28 forecasts

X

Gen Al '28 cannib. Rates by segments

=

'28 creators' revenue loss (and %)

'23 market size

'28 forecasts(1)

€1.9Bn

€2.2Bn

**56%** 

- Higher production budget
- Lower production budget

€1.3Bn



## Calculation methodology for the audiovisual segments (1/2) Complete video/audiovisual works



#### Audiovidual Can Al providers' revenues - 2022-2028 EPn

	Runway 2028 active users' estimation	x	Runway 2028 ARPU	 Runway market share in prompt-to-video market	=	2028 associated players' total revenues
1. Mass public tools						
(also suitable/used for professional purposes)	c.4m - 30%		40€	15%		c. €3.5Bn
						2028 associated players



€0.8Bn

total revenues

creative process)

(support in the

Note: (1) Considered as slightly lower as in audiovisual, due weaker maturity of tools to date, and an estimated even more expensive price for these tools in 2028

Video/Audiovisual software market size



2028 Generative AI tools penetration rate

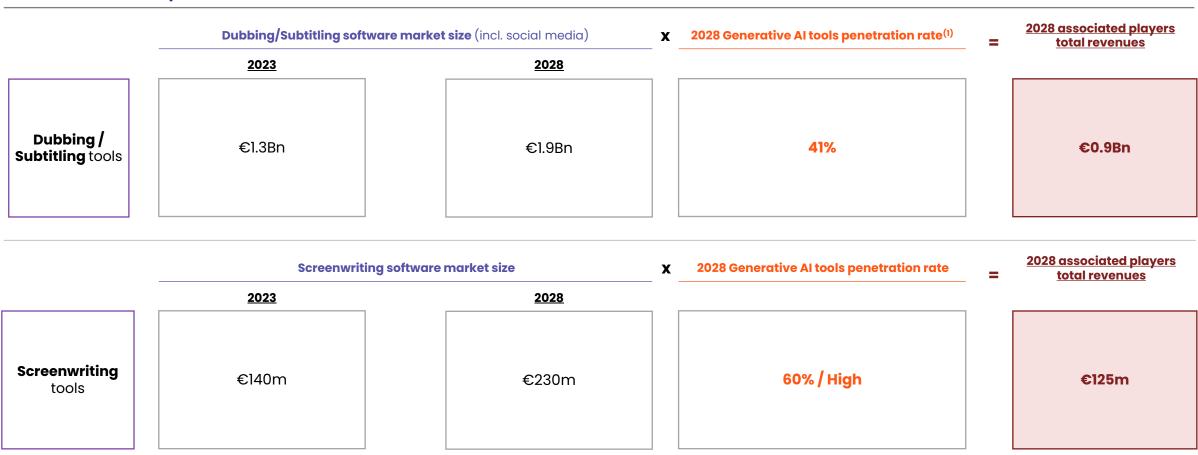


## 3

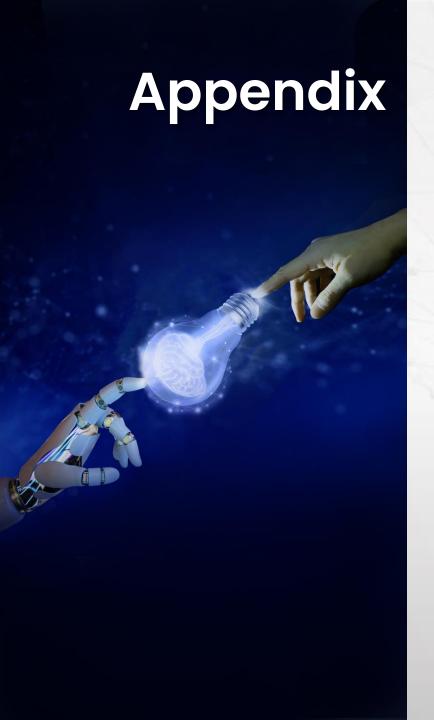


# Calculation methodology for the audiovisual segments (2/2) <a href="Dubbing/Subtitling">Dubbing/Subtitling</a> and <a href="Screenwriting">Screenwriting</a>

#### Audiovisual Gen Al providers' revenues - 2023-2028, €Bn



Note: <sup>(1)</sup> Based on weighed penetration rate calculated in the market segment | <sup>(2)</sup> Higher rate as in the market calculation, as such software are widely used for audiovisual content that is not intended to generate revenue or is not widely distributed (corporate content, content for social networks)



Detailed methodology and assumptions

Glossary

**Detailed list of interviews conducted** 

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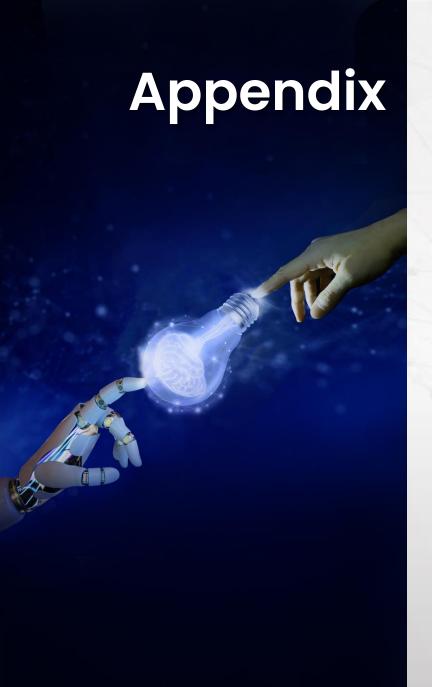


## **Glossary** Main abbreviations and definitions (1/2)

- AV: Audiovisual
- **ARPU:** Average Revenue Per User
- B2B (Business-to-Business): Refers to transactions between businesses, such as a manufacturer selling to a wholesaler. Examples include companies providing office supplies to other businesses
- B2C (Business-to-Consumer): Businesses selling products or services directly to individual consumers. Examples include online retailers like Amazon.
- Buy-out: A one-time payment for the full rights to use a creative work, with no future royalties owed to the creator.
- CAGR: Compound Annual Growth Rate
- CMO: Collective Management Organization
- Deep Learning: A subset of machine learning involving neural networks with many layers, enabling the analysis and learning from large amounts of complex data.
- **DSPs (Digital Service Providers)**: In the context of music streaming, Digital Service Providers are online platforms that distribute and stream music to listeners. Examples include Spotify, Apple Music, and Amazon Music.
- GAFAM: Acronym for Google, Apple, Facebook, Amazon, and Microsoft
- Gen AI (Generative Artificial Intelligence): AI systems that generate new content based on training data.
- Input: The data or information fed into an AI system or algorithm for processing and analysis.
- LLM (Large Language Model): A type of artificial intelligence model trained on vast amounts of text data to understand and generate human language.
- Machine Learning: A branch of artificial intelligence where algorithms learn from and make predictions or decisions based on data.
- NLP (Natural Language Processing): A field of artificial intelligence focused on the interaction between computers and humans through natural language.
- OTT: Over the top, self-distribution model outside the operator set-top box: content accessible directly through an app/website on all devices (smart TVs, smartphones, tablets, etc.)

## **Glossary** Main abbreviations and definitions (2/2)

- Output: The result or product generated by an Al system, such as text, images, or other data.
- Pay-per-view (TVoD): a television service in which viewers are required to pay a fee in order to watch a specific programme.
- **UGC** (User-Generated Content): Content created and published by users rather than by professional creators or brands, often shared on social media and other online platforms.
- VOD: Video-on-demand
  - **AVOD:** Advertising video on demand, i.e. advertised-funded digital video platforms (YouTube, Social Media)
  - **BVOD:** Broadcaster Video On Demand, free-access streaming platforms from local broadcasters (VRT MAX, VTM Go, Go Play)
  - HVOD: Hybrid video on demand, combining several business models (advertised-funded and subscription/consumer-funded for instance)
  - **SVOD:** Subscription video on demand, traditional streaming platforms, including international players (Netflix, Disney+, etc.) and local players (Streamz)
  - FAST: Free ad-supported streaming TV



Detailed methodology and assumptions

Glossary

**Detailed list of interviews conducted** 

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# Interviews | CMOs (1/2)

		888
Name	Company	Repertoire
Marie-Anne Ferry-Fall & Thierry Maillard	ADAGP	Visual Arts
Dean Ormston & Richard Mallett	APRA AMCO	Music
Christian Zimmermann & Reema Selhi	DACS	Visual Arts
Ricardo Gómez Cabaleiro	DAMA	Audiovisual
Tobias Holzmüller & Kai Welp	GEMA	Music
Kazumasa Izawa & Kay Yamaguchi	JASRAC	Music
Chu Ga Yeoul & Seon Cheol Hwang	KOMCA	Music
Andrea Czapary Martin & John Mottram	PRS	Music
Alexandra Cardona Restrepo	REDES	Audiovisual
Géraldine Loulergue-Husson & Patrick Raude & Sandrine Sandoval	SACD	Audiovisual
Héloïse Fontanel	Sacem	Music
Julien Dumon	Sacem	Music
David El Sayegh	Sacem	Music
Julien Lefebvre	Sacem	Music

# Interviews | CMOs (2/2)

	<b>n</b>	
Name	Company	Repertoire
Annabell Lebethe	SAMRO	Music
Cristina Perpiñá-Robert Navarro	SGAE	Transversal
Matteo Fedeli & Fabrizio Zavagli & Adriana Galli & Andrea Marzulli	SIAE	Transversal
Jennifer Brown	SOCAN	Music
Jürg Ruchti	SSA	Audiovisual
Marcelo Bastos Castello Branco & collaborators	UBC	Music
Sylwia Biadun	ZAPA	Audiovisual
Vianney Beaudeu & Raphaël Léaupard	LaScam	Audiovisual
Maria Garateche	Argentores	Audiovisual
Richard Combes	ALCS	Audiovisual

# Interviews | Tech players

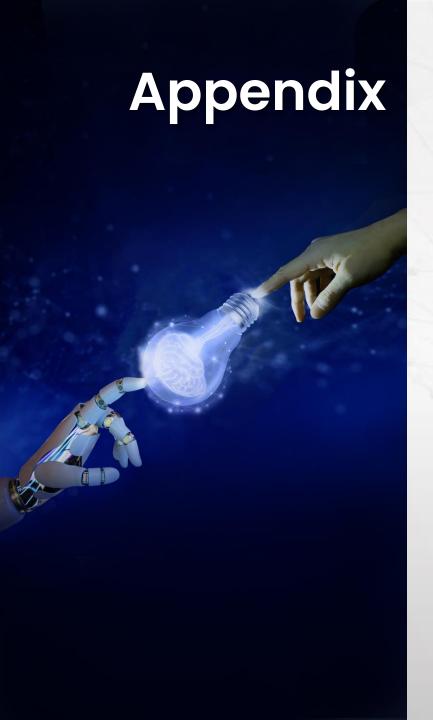
Name	Company	Repertoire
Àlex Loscos	ВМАТ	Music
Ed Newton Rex	Fairly Trained	Transversal
Ryan Groves	Infinite Album	Music / Audiovisual
Nathalie Birocheau	Ircam Amplify	Music
Alexandre Défossez	Kyutai	Transversal
Philippe Guillaud	Matchtune	Music
Eric Samson	Microsoft	Transversal
Christophe Müller & Kevin Montler	YouTube / Google	Transversal

## **Interviews** Production, Distribution, Publishing companies

	<u>a</u>	
Name	Company	Organisation type
Pierre-Michel Levallois	BAM Music	Production Company
Aurélien Hérault	Deezer	DSP
Mathieu Taieb	Dubbing Brothers	Production Company
Perrine Guyomard	Ex-Warner / Sacem Lab	Production Company / CMO
Tiphaine Des Déserts	Getty Image	Production & Publishing
Michael Turbot	Sony Computer Science Laboratories	Production Company
Anne Jouanneau	Sony Music Publishing	Publishing Company

# **Interviews** Institutions, Legal bodies and other organisations

Name	Company	Repertoire
Marion Carré	Ask Mona / Commission Européenne	Transversal
Sylvie Fodor	CEPIC	Visual Arts
Cécile Lacoue	CNC	Audiovisual
Arshia Cont	Ex-Ircam / Antescofo	Music
John Phelan	ICMP	Music
Lauri Rechard, Abbas Lightwalla	IFPI	Music
Alfons Karabuda	NIM / ECSA	Music
Alexandra Bensamoun	Paris Saclay / Commission interministérielle de l'IA	Transversal
Benoît Carré	SGYGGE / Ministère de la Culture	Music
Isabelle Wekstein-Steg	WAN AVOCATS	Transversal
Juliette Prissard	Eurocinema	Audiovisual
Céline Despringre	SAA	Audiovisual
Pauline Durand-Vialle	FERA	Audiovisual
Gilles Fontaine	European Audiovisual Observatory	Audiovisual
Eduardo Senna & Matheus Leopardi	Senna Advogados	Audiovisual



Detailed methodology and assumptions

Glossary

**Detailed list of interviews conducted** 

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## A Strategic Consulting Firm

Your business environment is changing faster and faster. **We already know that we will not work or consume tomorrow as we do today.** 

We have learned that we need to be able to adapt quickly to major disruptions, which are unpredictable by nature. And that it is no longer acceptable to impact business performance without taking into consideration the world we live in.

At PMP Strategy, we are committed to working with senior executives to achieve both goals and create a positive impact.

Just as you are, we are true experts in your market. We apply rigorous analysis, leveraging our high level of competence and understanding. We believe that there is no positive impact without great conviction and the total mobilisation of a diversified team.

We cannot address today's problems with yesterday's answers. We are dedicated to finding tailor-made and innovative solutions, as if we were doing it for ourselves. We are always focused on working with you and your teams, hand in hand, with the entrepreneurial spirit that motivates us.

We strongly believe in diversity, human commitment and openness. These are the values that forge the strong relationships and mutual trust that we cultivate with our clients.

PMP Strategy is a renowned consulting firm in the **Media & Cultural industries**, helping its clients adapt their business models and organisations in a market disrupted by digital "pure players".

### PMP Strategy, Posit+ve Impact

#### Industries

- 💢 Telecom Media Tech
- Transportation & Mobility
- Energy & Industry Decarbonization
- Ultural & Creative Industries

#### Capabilities

- Strategy & Transformation
- Private Equity
- 🖫 Digital, Data & Customer Experience
- © CFO Advisory and Integrated Performance CSR-ESG

#### PMP Strategy: An International Player

Europe

Africa & Middle East

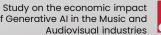
North America

Paris, London, Madrid, Brussels, Luxembourg Dubai, Casablanca New York, Montreal, Seattle, Toronto



## Key figures

11 Offices. +150 Consultants. +100 Expert Advisors.







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