# audio commons

# Deliverable D3.3

## D3.3 Guidelines for including new actors in the ACE

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|---|---|
| **Grant agreement nr** | 688382 |
| **Project full title** | Audio Commons: An Ecosystem for Creative Reuse of Audio Content |
| **Project acronym** | AudioCommons |
| **Project duration** | 36 Months (February 2016 - January 2019) |
| **Work package** | WP3 |
| **Due date** | 28 April 2016 (M14) |
| **Submission date** | 28 April 2016 (M14) |
| **Report availability** | Public (), Confidential (X) |
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| **Document status** | Final |

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# Executive Summary

This deliverable is part of WP3, a work package that will (1) clarify intellectual property aspects of the ACE, (2) relate them to the different Creative Commons licensing strategies, (3) define procedures that explain to content creators, content providers, tool developers and content users how to interact with the ACE, (4) and study emerging business models and long-term sustainability models for the ACE.

The present task provides use case comparisons between all current scenarios, whereby a user or partner joins the ACE, with consideration for multiple aspects of this process, including: motivation and potential benefits, interactions with other ACE partners or license usage requirements. All this information will be made available and function as guidelines for new actors in order to describe how they should be able to interact within the ACE. We outline different interaction scenarios and show how different needs of actors can be accommodated in the ACE. By doing so, we give special consideration to possibilities of commercial reuse of Creative Commons content. We draw on multiple use cases in order to illustrate the interaction process in the ACE in order to show how it facilitates the interaction process.

The first section briefly outlines main functions of the ACE and gives a background to services offered by AudioCommons. Then, this document considers four types of involvement in the ACE and accordingly forms the guidelines. It starts from the contributor level, which corresponds with individual users who upload their own work to sound repositories (and perhaps use others' open sound for compositions). Then, it describes the content provider level, referring to sound repositories that host CC-licensed music and/or audio and bring it to the ACE. We specifically refer to two use cases: FreeSound's (non-musical sound and no additional services), and Jamendo's (musical sound and additional licensing service). The next level refers to consumers who will be buying and consuming sound within the ACE. We provide examples of application developers who are interested in consuming content and re-using sound in different ways, for instance by putting it as background music in a game or by developing a procedural content generation algorithm simulating environmental noise. In the last section we concentrate on the tool creator level. Tool developers will offer services using multiple functions of the ACE, for instance writing plug-ins that are used within production workflows or audio content analysis.

The final section maps interaction between all participants, showing relations of different partner types, their licensing requirements, and elements of their joining process.

This deliverable clarifies issues connected to joining ACE and outlines different actors' needs that must be considered when joining ACE. The issues identified in this deliverable will also be utilized in the next deliverable, aimed at the exploration of business models for ACE.

# Background

This Deliverable is part of the third work package (WP3), which concentrates on investigating and understanding the rights management requirements and business models for the ACE. This document details work toward the objectives stated in Task 3.4, focusing on exploring use case comparisons to all current scenarios whereby a user or creator interacts with an available service.

This deliverable considers four major levels of interaction: from the contributor and content provider level (creating and hosting music and/or audio to bring to the ACE) to the consumer level (buying and using ACE audio), to the tool creator level (writing plug-ins that are used within production workflows and that consume particular kinds of audio content), also including other levels of interaction in which only a particular service is offered such as audio content annotation or licensing management.

This task was carried out by Surrey, with input from Jamendo and MTG-UPF (content providers).

The document is interconnected with Task 3.3, which researches emerging business models in the open sound industry, and the interaction between (1) content creators, (2) content consumers, (3) services, and (4) creative platforms, such as music production tools or game engines.

# 1 Introduction

The Audio Commons Ecosystem (ACE) will provide a number of functions for actors with different needs representing the gaming, music, and film/advertising industries, based on content licensed under the Creative Commons framework. This deliverable investigates the possible interactions within the ACE in the context of existing industry practice. The central issue of this document is to provide information that will be helpful for users joining the ACE. To do so, we provide descriptions that will, at a later stage, be turned into documents available for interested parties. We start this document by providing an outline of the ACE and explaining its main functions. Then we move to descriptions, providing them for each types of ACE partners and users: Content Creators, Content Providers, Consumers and Tool Creators. We consider different models of adapting to ACE, looking at different use case scenarios, based on multiple aspects of involvement: different partner needs and motivations, ACE interaction mapping, licensing needs and joining procedures. This Deliverable also tentatively draws some directions of development of the ACE business model, which will be further explained in the Deliverable 3.4.

## 1.1 Main objectives and goals

Objectives:

- Definition of procedures that explain to content creators, content providers, tool developers and content users how to interact with the ACE;
- Comparison of ACE participants' needs and licensing requirements;
- Analysis of participants' interactions within the ACE.

## 1.2 Terminology

**AudioCommons:** reference to the EC H2020 funded project AudioCommons, with grant agreement nr 688382.

**Audio Commons Initiative:** understanding of the AudioCommons project core ideas beyond the lifetime and specific scope of the funded project. The term "Audio Commons Initiative" is used to imply i) our will to continue supporting the Audio Commons Ecosystem and its ideas after the lifetime of the funded project, and ii) our will to engage new stakeholders which are not officially part of the project consortium.

**Audio Commons:** generic reference to the Audio Commons core ideas, without distinguishing between the concept of the initiative and the actual funded project.

**Audio Commons Ecosystem (ACE):** series of technologies and actors involved in publishing and consuming Audio Commons content.

**Audio Commons content (AC):** audio content released under Creative Commons licenses and enhanced with meaningful contextual information (e.g., annotations, license information) that enables its publication in the ACE.

**Content creator:** individual users, industries or other actors that create audio content and publish in the ACE through content providers.

**Content provider:** services that expose content created by content creators to the ACE.

**Content user:** individual users, industries or other actors that use the content exposed by content providers and created by content creators in their creative workflows.

**Ontology**: In the context of computer and information sciences, an ontology defines a set of representational primitives with which to model a domain of knowledge or discourse. The representational primitives are typically classes (or sets), attributes (or properties), and relationships (or relations among class members). The definitions of the representational primitives include information about their meaning and constraints on their logically consistent application. In the context of database systems, ontology can be viewed as a level of abstraction of data models, analogous to hierarchical and relational models, but intended for modelling knowledge about individuals, their attributes, and their relationships to other individuals. Ontologies are typically specified in languages that allow abstraction away from data structures and implementation strategies; in practice, the languages of ontologies are closer in expressive power to first-order logic than languages used to model databases. [Gruber]

**Tool developer:** individual users, industries or other actors that develop tools for consumption (and also potentially publishing) Audio Commons content.

**Embeddable tools:** tools for consuming Audio Commons content that can be embedded in existing production workflows of the creative industries.

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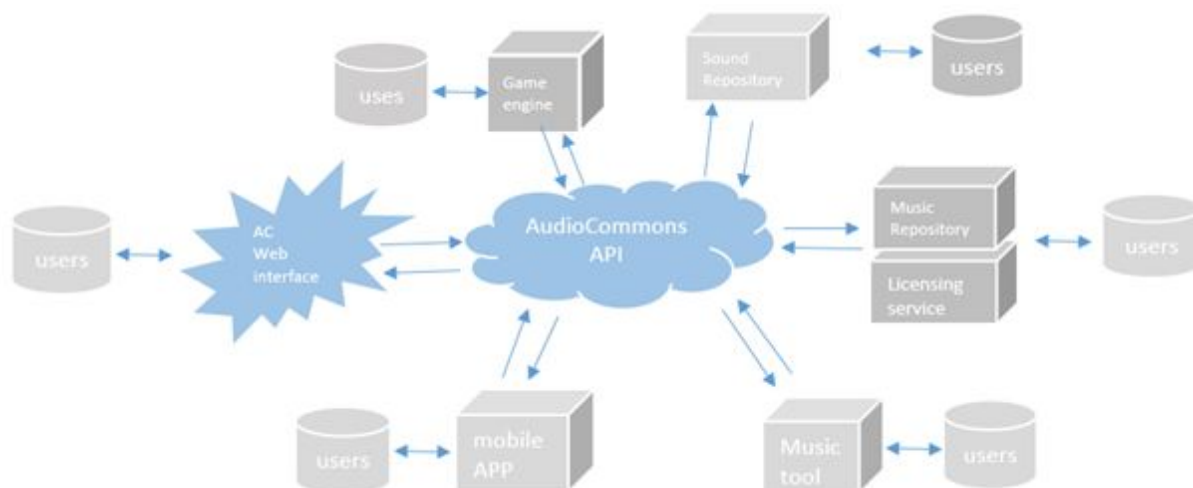Page 6 of 28

# 2 AudioCommons - Description of Service



**Figure 1: AudioCommons interaction map**

AudioCommons brings open content to the creative industries. We enable access and retrieval of open audio content in innovative ways that fits the requirements of different actors involved in the media industry by facilitating content search and purchase as well as benefiting creators by exposing their works to new professional groups and technological solutions. The AudioCommons Ecosystem provokes a shift in the audio industry by providing a platform in which content creators and platforms are given new means of interacting with content users. We provide an open and circular ecosystem through which the interaction between different parties is simple and efficient.

The AudioCommons technology responds to the existing industry needs, from cataloguing the data by building metadata specification, providing content annotation, content analysis, gathering of user feedback to facilitating licensing procedures. It opens opportunities for parties interested in finding content for creative projects, developing tools allowing to modify this content or having other opportunities or necessities for   involvement with the open sound community. By providing complex

annotation tools and API, we provide opportunities for new business models and engagement with open content.

AudioCommons is a non-profit organization with the main goal of promoting open media. Our entire service and activity is based on the financial participation of industrial partners. All funding that we receive is spent on maintaining the service, research and community growth. The launch of AudioCommons has been possible through the European Union's Horizon 2020 project.

**In brief, Audio Commons provides the following technology solutions:**

- Technological solution facilitating access and search of open sound;

- An ecosystem allowing multiple partners to be connected by offering distinguished and interlinked services based on open audio content;

- Supporting content licensed under the Creative Commons frameworks;

- Accessed through:

    - API

    - Web interface

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# 3 Contributor Level

**Description:**

AudioCommons provides distribution channels that ensure that content creators or contributors reach the broadest audience possible. As an ecosystem, AudioCommons connects creators, repositories and consumers of content, allowing for new type of outreach for creators. By integrating all types of Creative Commons licensing methods, we provide greater freedom in the choice of how creators' work may be consumed in the future. Audio Commons allows circulation of music, samples and sound effects, and at the same time provides new ways of monetising content. Through our partners creators will be able to not only share their audio content but also control licensing, for instance by initially sharing content under non-commercial license and allowing commercial usage of content upon a payment. AudioCommons will ensure that the content you share is properly annotated and categorized – we both provide you with the opportunity of tagging your data and also use advanced analysis tools that place content in the proper category.

## 3.1 Contributor A: Musician

An enthusiast of open content, who admits to facing problems when searching for good (and free) sounds/samples and sometimes finding it difficult to understand licensing. This user has significant experience in the music industry. For several years he has been involved in music production. He has used sound repositories in the past. When looking for samples for his compositions, he typically first searches for samples on-line (using web browser), saves them to an external drive and transfers to offline DAW. When uploading them, he uses the preferred repository's page.
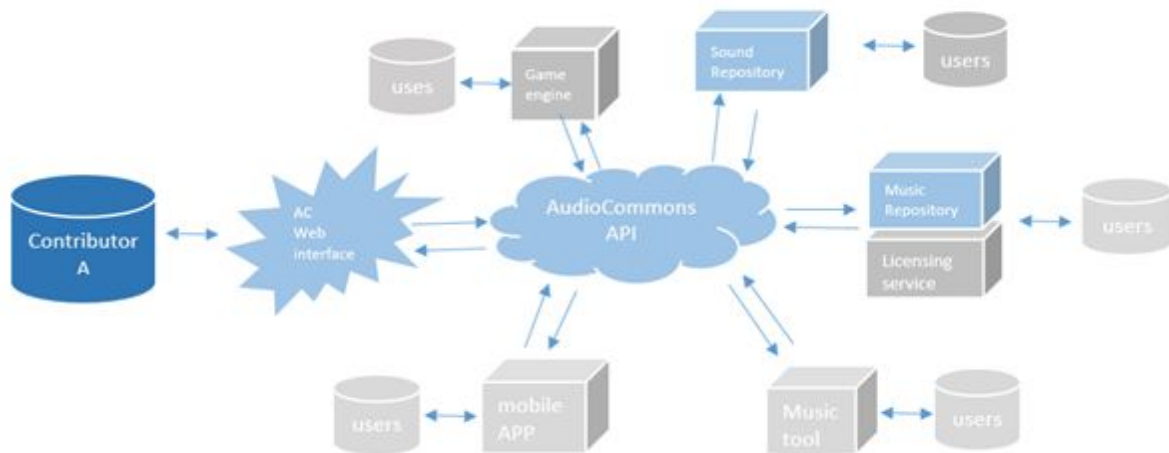
**Figure 2: Contributor A interaction scenario**

**Requirements :**

- user wants to easily filter through high quality results,
- user wants to upload sound and license it in accordance with the permissions defined in the previously downloaded samples.

**ACE interaction scenario:**

He connects through AudioCommons web interface and searches and browses for appropriate pieces from the available sound repositories. Because of analytical tools and functions of the ACE, this user is now able to enhance and expedite the search process. Previously he handpicked sound pieces from repositories, saving them and annotating manually. AudioCommons' metadata information facilitates licensing and remixing of content. Uploading is also made easier and could be done from the ACE web interface level, which re-directs the user to the appropriate repository's upload page, requiring only single log-in.

**Joining procedure:**

AudioCommons / repository sign up for single log-in.

## 3.2 Contributor B: Foley

A hobbyist who is passionate about recording high quality sound effects and would like to increase his own recognition and possibly generate new sources of income. For several years this user has been involved in recording high quality sound effects in the field. His sound pieces have been used professionally, appearing in a number of movie soundtracks and radio commercials. He is familiar with open sound repositories, having already shared some of his works there. He understands licensing procedures quite well. For this user making his own content available is a way of achieving recognition and gaining new industry contacts. He mostly enjoys hearing his production being re-used, however he regrets that the re-usage cannot be tracked more easily (re-usage without attribution commonly happens in the media practice). He would like to achieve more exposure through ACE and, at the same time, upload content through his existing repository account.
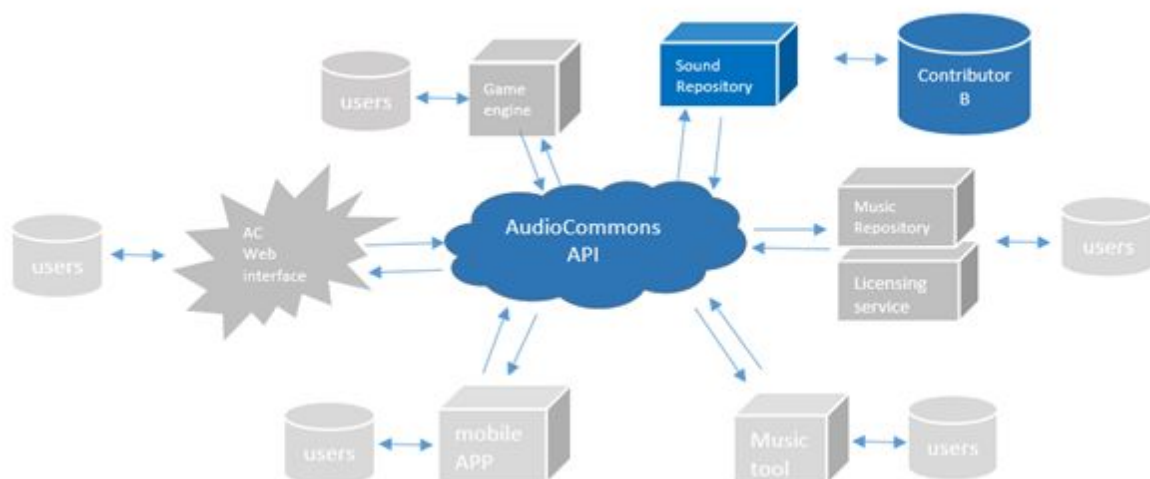


**Figure 3: Contributor B interaction scenario**

**Requirements :**

- user would like to reach the broadest audience possible

- user is looking forward to finding opportunities for collaboration and establishing professional networks.

**ACE interaction scenario:**

Even though this contributor does not feel a need to consume the content of the ACE and he would like to remain an active user of his preferred repository, there are several advantages of the ACE that he is likely to benefit from. His repository, being part of the ACE, allows his work to be better exposed, tagged and catalogued, facilitating access to the content by diverse consumer groups. This potentially might allow new contacts to be built and for broader exposure of this artists' works to be achieved. .

**Joining procedure (future outlook):**

AudioCommons / repository sign up for single log-in.

# 3. Content Provider Level

**Description:**

AudioCommons provides distribution channels ensuring that audio content providers, such as open sound repositories and hosting websites reach the broadest audience possible. As an ecosystem, AudioCommons connects creators, repositories and consumers of content, allowing for broad exposure of content to different media industry actors. By supporting all types of Creative Commons licensing, we ensure legal compatibility of content from multiple sources and promote consumers' knowledge of Creative Commons licensing framework. We represent freedom of the sound industry in the digital economy – allowing for circulation of music, samples and sound effects. Through our partners you will be able to not only share your content and website, but also fully support your business model – integrating it with AudioCommons and making it available through tools and web interface. AudioCommons will also ensure that your content is properly annotated and categorized – we will both integrate your tags with our system and also use advanced analysis tools that place content in the proper category.

## 3.1 Content Provider: Sound Repository A (Freesound)

An open sound repository which has an important position in the open sound community. The repository has accumulated a significant amount of musical and non-musical content over the years, all of which are shared under the CC licensing framework. It has gathered a large community of regular users, but currently the page is growing slowly; its monthly traffic remains stable over time. Being financed by university funding, site owners would like it to expand the user base and monetize from its popularity.
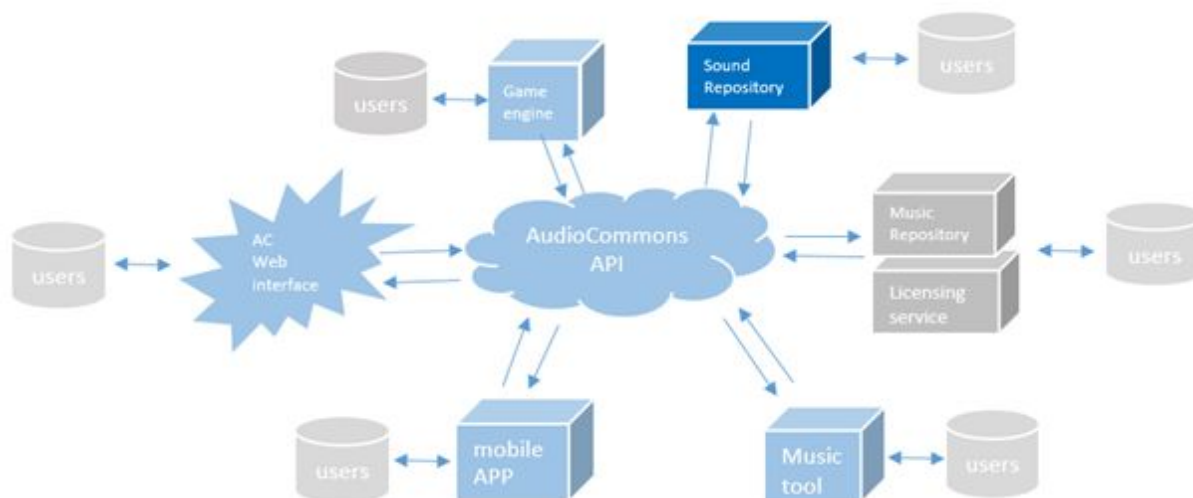
**Figure 4: Sound Repository interaction scenario**

**Licensing support:** all Creative Commons license types

**Requirements:**

- user is looking for an opportunity to grow the page by expanding users and developing services,
- user is looking for a better way of monetizing from the page.

**ACE interaction scenario:**

Being part of the ACE allows for new types of exposure of this repository's content. Because ACE will be integrated with a number of tools and services, this repository's users, for instance through plug-ins, will provide easier access to content and services. There is large potential for cross-interaction with different AudioCommons partners and their consumers. Additionally, this repository will also be able to expand services available to its existing consumer base. For instance, using ACE, content creators will gain the possibility of editing their sound through plug-ins and uploading it directly to the repository. This both opens new ways for expanding the content base and consumer groups.

**Joining procedure:**

Becoming the AudioCommons partner: e.g. integration of the repository (metadata, sound formats), compliance with CC licensing.

## 3.2 Content Provider: Repository B + Licensing Service (Jamendo)

This partner is a leading repository of open music. On the top of the music catalogue, this actor has developed a licensing service, based on offering a paid extension of existing non-commercial licenses (CC-NC) to commercial applications (and sharing revenue with the artists). By delivering a payment system and managing contacts with copyright owners and buyers, the content provider generates a profit by charging a percentage fee on the cost of re-licensing.
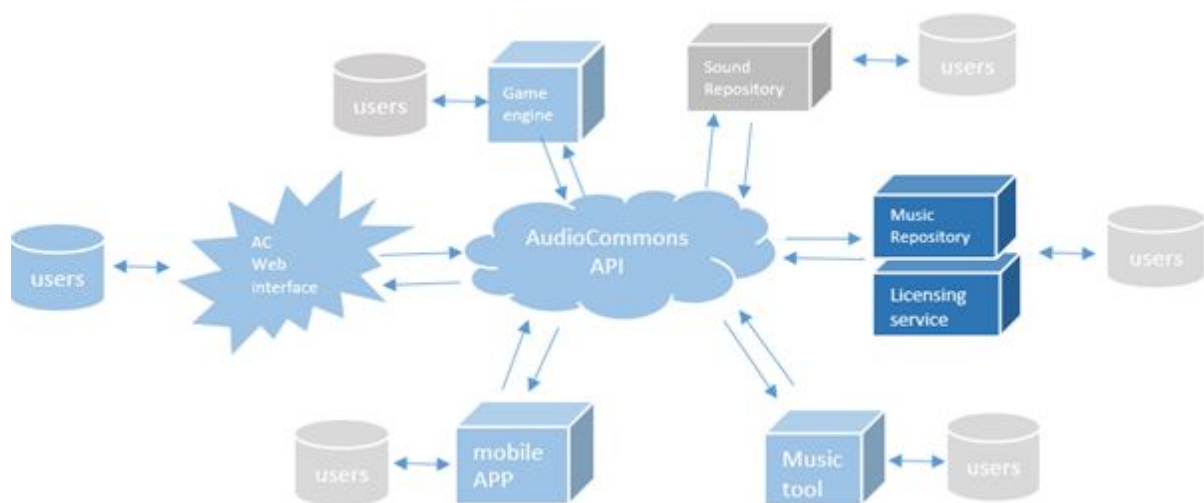


**Figure 5: Repository B + Licensing Service interaction scenario**

**Requirements: :**

- Looking for new client groups;
- Expanding licensing services through offering a newly developed automated re-licensing system;
- Looking for partnerships with repositories or creators who could be looking for monetisation opportunities of content that they own;
- Looking for solutions regarding the process of verification of track ownership.

**ACE interaction scenario:**

Joining ACE, similarly to Repository A, will expand the customer base and attract new creators to upload music to the repository. Additionally, ACE will provide a new channel for the licensing service, which will be integrated with DAW plug-ins (in the form of buttons allowing purchase of a track) and accessible through API and web interface – exposing it to new types of consumers.

**Joining procedure:**

Becoming the AudioCommons partner: e.g. integration of repository (metadata, sound formats), compliance with CC licensing.

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# 4 Consumer Level

**Description:**

AudioCommons provides an environment for finding, accessing and consuming open sound in the audio industry. Being an ecosystem, AudioCommons connects creators, repositories and consumers of content, allowing a broad exposure of content to different sound industry actors. By supporting all types of Creative Commons licensing, we ensure legal compatibility of content from multiple sources and promote the knowledge of Creative Commons frameworks by consumers. We represent freedom of sound industry in the digital economy – allowing circulation of music, samples and sound effects. AudioCommons ensures that the content is properly annotated and categorized – we use advanced analysis tools that posit content in a proper category. Through our ecosystem you will be able to not only to access sound, but also fully support your business model – integrating it with AudioCommons API and using it in your projects.

## 4.1 Consumer A: Indie Game Studio

The gaming industry actor who is looking for the opportunity to integrate a large library of sound into an open-world multiplayer game. The selection of sound will be mostly hand-picked by the game's sound designer. The sound would both be based on edited samples as well as samples processed by the sound engine, adapting them to game reality (e.g. imitating weather conditions). The game will be free to users, offering in-app purchases.
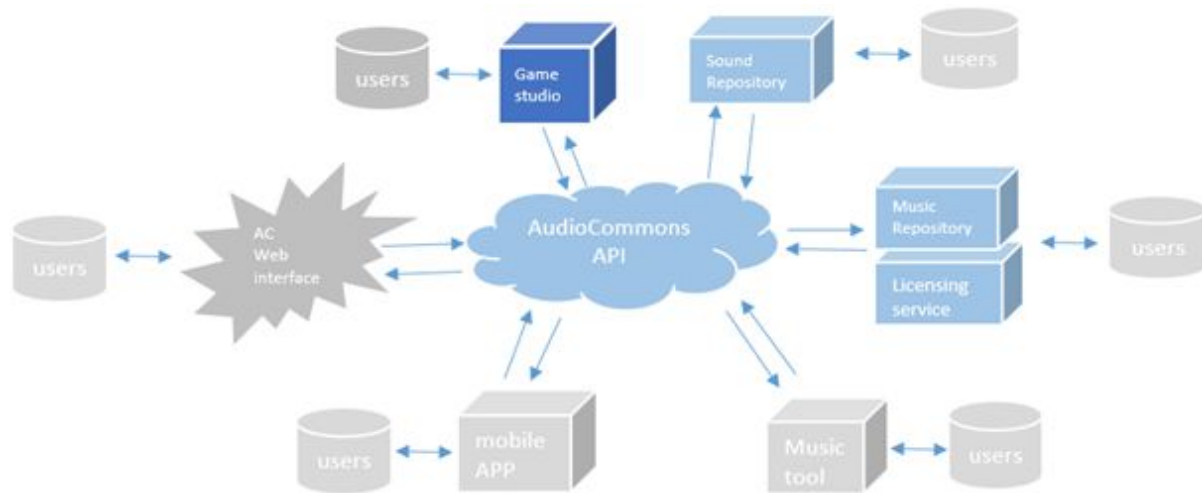
**Figure 6: Game Studio interaction scenario**

**Licensing requirements:** content licenses allowing commercial usage (CC-BY, CC-BY-ND, CC0).

**Needs:**

- access to a large library of sound, filtering and integration of quality pieces into the game;
- would like to automatically add new sounds to the game if new matching pieces are added to the platform;
- would like to automate the licensing/attribution process;
- standardization of samples and expedited sound editing.

**Benefits of participation:**

AudioCommons offers a unique opportunity for exploring a large library of sound and music. Its unique metadata and annotation tools will allow the curator to search and access for content of specific features and under commercially suitable licensing frameworks. The API will permit integration of ACE into the sound designer's workflow and integration with the game engine in order to expedite the inclusion of of new sound samples.

**Joining procedure:**

Integration of API, negotiations with content providers regarding commercial usage of content

## 4.2 Consumer B: VR application "tra-VR-ler"

A software studio is looking for a large database of sounds for a VR algorithm. This actor is currently developing an innovative application, based on procedural content generation. Working in a similar way to a personal assistant, this application will allow the user to experience any kind of requested environment – providing a simulated VR experience of travel. The uniqueness of the programme will allow the generation of endless variations, making the application user-adaptable. For instance, the user could be able to request any imagined environments such as "Hawaiian Summer", "Polish Winter", "Indian Market" or "Chinese restaurant". The software will both generate image and sound. The audio engine will compose content on demand – each time the tool is run, a new sound piece will be created or mixed in real time, based on number of interactive factors. The studio is currently looking for a database of sound that can be integrated with the audio algorithm, considering the CC-licensed content. The studio plans to offer this software to VR hardware producers, which may use it as demonstrators and bundle software. Further plans include integrating the service with Android's and Apple's personal assistants.
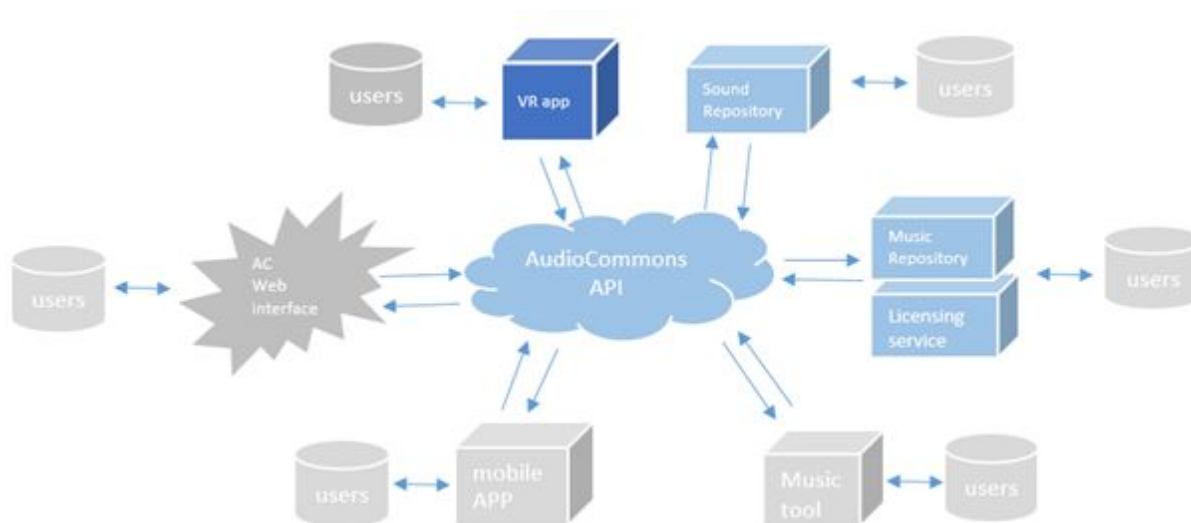
**Figure 7: VR app interaction scenario**

**Licensing needs:** content licenses allowing commercial usage (CC-BY, CC-BY-ND, CC0).

**Requirements: :**

- seeking a well catalogued database and willing to pay for commercial usage of samples;
- looking for a platform able to handle machine-to-machine transactions;
- intends to automatize the licensing process via algorithm.

**Benefits of participation:**

AC's API offers a unique opportunity of integrating a large scale repository of sound and music with the game engine. Its unique metadata and annotation tools will allow the game engine to search and access for content of specific features and under commercially suitable licensing frameworks.

**Joining procedure:**

Integration of API, negotiations with content providers regarding commercial usage of content and licensing.

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## 4.3 Consumer C: Mobile App

A startup owner looking for music pieces that could be integrated into her app. This user has significant IT experience but has no background in the audio industry. She is currently running a startup aimed at delivering background sounds to food consumers. She is looking for diverse and quality music pieces, which the startup is going to describe and associate with different food types. Even though she understands basic principles of music editing, she would like to automatically normalize and trim tracks. She would like to easily contact the author if the piece would need to be purchased for commercial use.
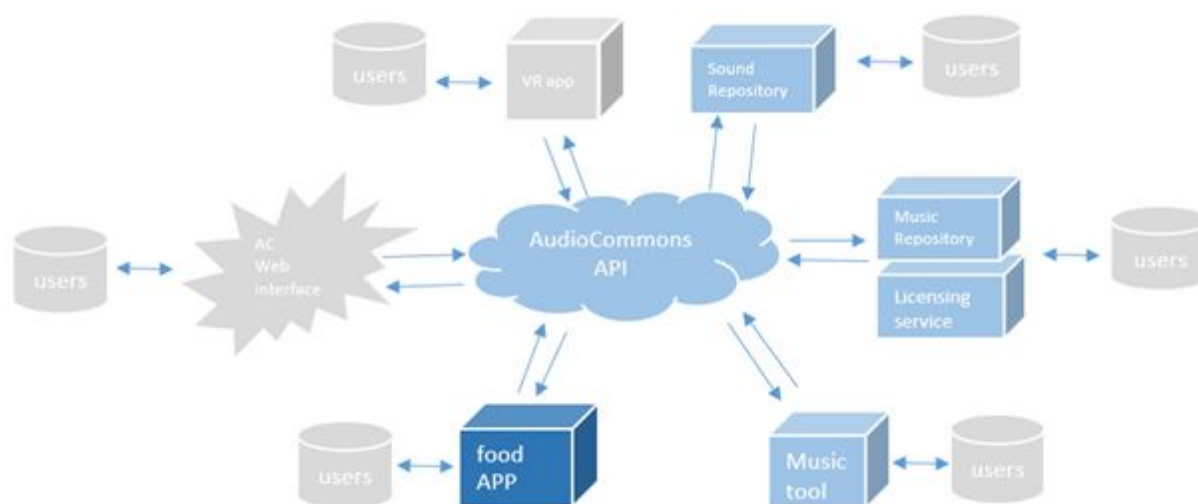


**Figure 8: Food app interaction scenario**

**Requirements:**

- find and access high quality open sound pieces (motivated by cost reduction – does not want to pay for content)
- user could potentially pay for content (conversion of license from NC to commercial usage)
- user is looking for simple and straight-forward ways of purchasing content.

**ACE interaction scenario:**

ACE's API offers a unique opportunity of interacting with a large scale repository of music. Its unique metadata and annotation tools will allow the app creator to search for and access content of specific features and under commercially suitable licensing frameworks. The music tool will expedite the normalization and editing process – so that the suitable track will be ready to download and integrate with the application quickly.

**Joining procedure:**

Integration of API, negotiations with content providers regarding commercial usage of content

# 5 Tool Creator Level

**Description:**

AudioCommons provides an environment for developing new innovative business models based on finding, accessing and consuming open sound in the audio industry. Being an ecosystem,

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AudioCommons connects creators, repositories and consumers of content, allowing for broad exposure of content to different sound industry actors. By supporting all types of Creative Commons licensing, we ensure legal compatibility of content from multiple sources and promote the knowledge of Creative Commons frameworks by users. We represent freedom of the sound industry in the digital economy – allowing for circulation of music, samples and sound effects and its integration with new projects relying on sound and sound services. AudioCommons ensures that the content is properly annotated and categorized – we use advanced analysis tools that puts content in the appropriate categorisation / classification but also support for complex searching and filtering (e.g. tools that allow search by specific sound descriptors or musically relevant concepts). Through our ecosystem, you will be able to not only to access sound, but also fully support your business model – integrating it with AudioCommons API and using it in your projects and business models.

## 5.1 Tool Creator A: Music Tool – Plugin (Waves)

A well-known producer of sound production software, specializing in audio software is looking for business opportunities to engage with open sound users and give them easy tools to participate in the open sound community, such as sound editor   software allowing basic ways of modifying and uploading open sound.
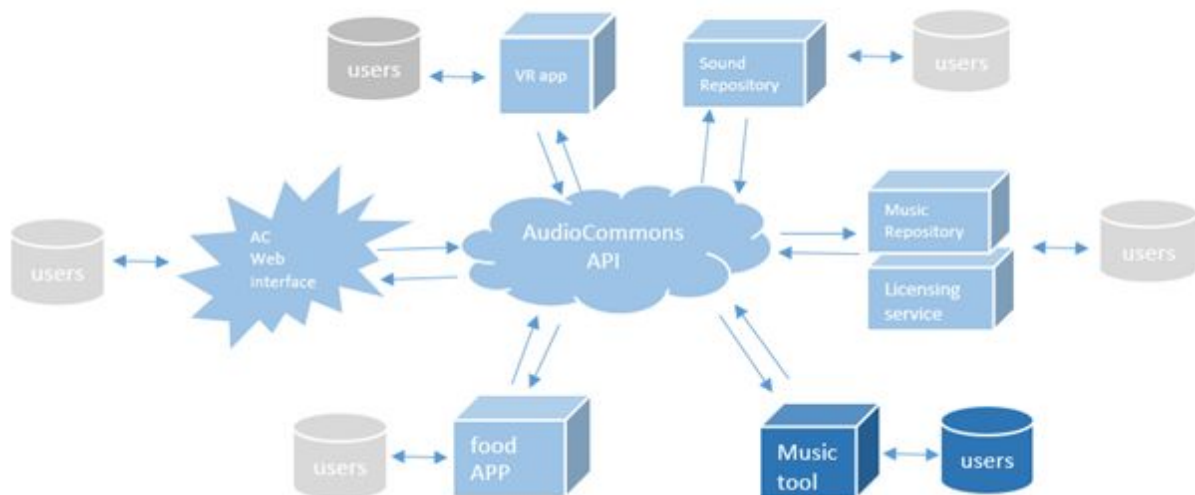
**Figure 9: Music Tool interaction scenario**

**Needs:**

- Looking for outreach based on engaging with the open sound community;
- Seeking potential partners whose services could be integrated with the firm's software;
- Hoping for new ways of monetization.

**ACE interaction scenario:**

The tool, developed on the top of AudioCommons' API, provides another channel of accessing services and content of AC partners. By using the plug-in within the DAW station, music creators and users are able to access repositories, edit and modify sound, upload it and interact with the ACE. Moreover, automated services of other parties could also rely on modification services available through this tool. Connecting the user base of plug-ins and the open community allows these two groups to be merged

**Joining procedure:**

Becoming an AudioCommons partner: Integration of services provided by the tool into the ACE (API and Web interface), negotiations regarding participation costs (possible: fee or other contribution towards maintenance of ACE).

# 5.2 Tool Creator B: Analysis / Curation Tool

An analytical service facilitating search of open media using new types of analysis tools. Providing its exclusive service at a subscription fee, this service is aimed at enabling commercial users to browse through a curated library of open sound in order to facilitate the production process and decision making.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 688382
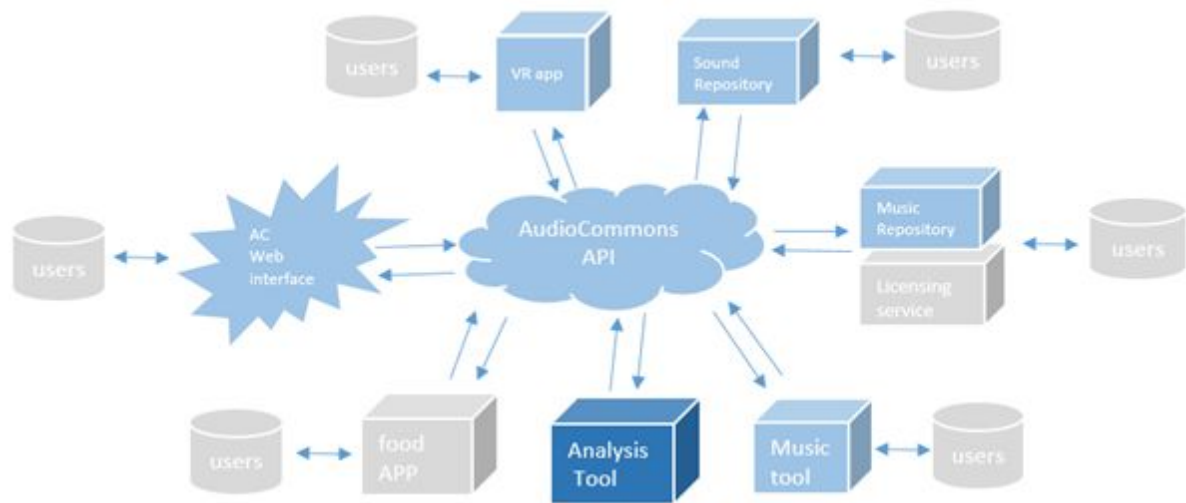
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**Figure 10: Analysis tool interaction scenario**

**Needs:**

- Looking for outreach based on engaging with the open sound community;
- Seeking potential partners whose services could be integrated with the firm's software.

**ACE interaction scenario:**

This tool would offer unique analysis tools that will facilitate browsing and curating sound. Through those channels it will be much easier and faster to go through repositories and find media for creative projects. For instance, VR app creators might decide to buy a subscription to this service and be able to better browse available content. The paid analysis service might also be accessed through other tools offered within the ACE – for instance through plug-ins.

**Joining procedure:**

Becoming an AudioCommons partner: Integration of services provided by the tool into the ACE (API and Web interface), negotiations regarding participation costs (possible: fee or other contribution towards maintenance of ACE).

# 6. Summary

As a way of summarising the content of this deliverable , we have generated tables showing the interrelations between actors and requirements connected to joining the ACE.

Table 1 (below) presents interactions occurring within the ACE, which were described in the sections above (according to the different types of engagement).

| | ACE Web interface | Contributor A (musician) | Contributor B (foley) | SOUND REPOSITORY A | REPOSITORY B AND LICENSING SERVICE | INDIE GAME STUDIO | VR APP | MOBILE APP | MUSIC TOOL | ANALYSIS TOOL |
|---|---|---|---|---|---|---|---|---|---|---|
| **CONTRIBUTOR LEVEL** | | | | | | | | | | |
| Contributor A (musician) | X | | | X | X | | | | | |
| Contributor B (foley) | | | | X | X | | | | | |
| **CONTENT PROVIDER LEVEL** | | | | | | | | | | |
| SOUND REPOSITORY A | X | X | X | | X | X | X | X | X | X |
| REPOSITORY B AND LICENSING SERVICE | X | X | X | X | | X | X | X | X | X |
| **CONSUMER LEVEL** | | | | | | | | | | |
| INDIE GAME STUDIO | | | | X | X | | | | | |
| VR APP | | | | X | X | | | | | |
| MOBILE APP | | | | X | X | | | | | |
| **TOOL CREATOR LEVEL** | | | | | | | | | | |
| MUSIC TOOL | X | | | X | X | | | | | |
| ANALYSIS TOOL | X | | | X | X | | | | | |

**Table 1: ACE table of interactions**

Table 2 (below) presents the different types of licenses that different partners will rely on. AudioCommons will rely on all types of CC licensing.

| | CC 0 | CC-BY | CC-BY-SA | CC-BY-ND | CC-BY-NC | CC-BY-NC-SA | CC-BY-NC-ND | OTHER CC: (eg. Sampling) | OTHER NON-CC |
|---|---|---|---|---|---|---|---|---|---|
| **CONTRIBUTOR LEVEL** | | | | | | | | | |
| Contributor A (musician) | X | X | X | | | | | | |
| Contributor B (foley) | X | X | X | X | X | X | X | | |
| **CONTENT PROVIDER LEVEL** | | | | | | | | | |
| SOUND REPOSITORY A | X | X | X | X | X | X | X | X | |
| REPOSITORY B AND LICENSING SERVICE | X | X | X | X | X | X | X | | X |
| **CONSUMER LEVEL** | | | | | | | | | |
| INDIE GAME STUDIO | X | X | X | X | | | | X | |
| VR APP | X | X | X | X | | | | X | |
| MOBILE APP | X | X | X | X | | | | X | |
| **TOOL CREATOR LEVEL** | | | | | | | | | |
| MUSIC TOOL | X | X | X | X | X | X | X | | |
| ANALYSIS TOOL | | X | X | X | X | X | X | X | X |

**Table 2: Licensing usage**

Table 3 (below) presents an overview of procedures that different partners will need to fulfill when joining AudioCommons.

| CONTRIBUTOR LEVEL | |
|---|---|
| Contributor A (musician) | AudioCommons / repository sign up for single log-in. |
| Contributor B (foley) | AudioCommons / repository sign up for single log-in. |
| **CONTENT PROVIDER LEVEL** | |
| SOUND REPOSITORY A | Becoming the AudioCommons partner: e.g. integration of repository (metadata, sound formats), compliance with CC licensing, negotiations with tool developers to be integrated into the interface. |
| REPOSITORY B AND LICENSING SERVICE | Becoming the AudioCommons partner: e.g. integration of repository (metadata, sound formats), compliance with CC licensing, negotiations with tool developers to be integrated into the interface. |
| **CONSUMER LEVEL** | |
| INDIE GAME STUDIO | Integration of API, negotiations with content providers regarding commercial usage of content |
| VR APP | Integration of API, negotiations with content providers regarding commercial usage of content |
| MOBILE APP | Integration of API, negotiations with content providers regarding commercial usage of content |
| **TOOL CREATOR LEVEL** | |
| MUSIC TOOL | Becoming AudioCommons partner: Integration of services provided by the tool into the ACE (API and Web interface), negotiations regarding participation costs (possible: fee or other contribution towards maintenence of ACE). |

**Table 3. Procedures when joining the ACE**

# 7. Conclusion

In this document we provided use case comparisons between all current scenarios whereby a user or creator joins the ACE, with consideration for the multiple aspects of this process, including: their motivation and potential benefits, interactions with other ACE partners and license usage requirements. All this information is made available as guidelines for new actors in order to describe how they should be able to interact within the ACE. We outlined different interaction scenarios and show how different needs of actors can be accommodated by the ACE. By doing so, we have given special consideration to the possibilities of commercial reuse of Creative Commons content. We have shown multiple use cases in order to illustrate the interaction process in the ACE and how ACE facilitates the interaction process.

As a result of this document, we have mapped the interaction between all participants, showing relations of different partner types, their licensing requirements, and their joining process. This deliverable has clarified issues connected to joining the ACE and outlined different actors' needs that must be considered when joining the ACE. The issues identified in this deliverable will also be utilized in the next deliverable, aimed at the exploration of business models for the ACE.

This deliverable is part of the WP3 work package. Other deliverables that will be created under this work package will facilitate research on emerging business models and long-term sustainability models for the ACE.