

# Music Technology MIR Motion

27/04/2021



Hi! My name is Lucas

Co-founder & Director of Scienseed

Briefing for MIP-Frontiers video

### 1. Context - overview of the project

The field of Music Information Retrieval (MIR) involves the use of Information processing methodologies to understand and model music, and to develop products and services for creation, distribution and interaction with music and music-related information. It is an interdisciplinary field combining disciplines as diverse as computer science (machine learning), telecommunications (signal processing), musicology, and psychology (music cognition).

MIR is a fascinating field of research, able to contribute to many societal challenges by bringing science, technology, and arts together, thus showing the potential of truly interdisciplinary research approaches. It can have a huge impact on the whole music ecosystem, thus covering the creation, distribution and reception of music.

The field of MIR is quite unknown as an academic discipline and it is an ideal field of research for people with both musical and scientific/engineering interests.

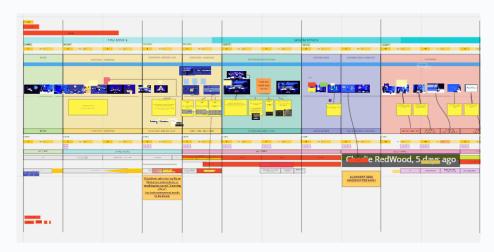
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The goal of this video is to promote research careers on Music Information Retrieval (MIR) among young people, presenting it as an attractive field in which to specialize in their studies, specially at the Master and PhD levels. We want to show its research and industrial potential.

### 3. Target audience

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Draft Draft Final Animation | Animation

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- The goal of this video is to promote research careers on Music Information Retrieval (MIR) among young people
- We want to show its research and industrial potential
- The target audience are university students, especially students interested in both science/engineering and music
- Duration of video: 3 minutes.

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Final Animation

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### **Training**

- Dealing with two dimensions
- Script writing basics
- Script structure
- Transitions
- Storytelling
- Storyboarding

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Can you imagine how listening to music might be in the future? And what about the process of creating it?

Music Information Research or MIR is a research field that uses information technologies to better understand and model music.

Its main aim is to develop products and services for the creation, production and

They can also help during recording and production, where one needs to search for adequate content, edit it, and create the final mix. The sound engineer can be helped by artificial intelligence during post-production while musicians can reduce mistakes while playing thanks to the feedback provided by MIR

Once the recording is made, artists need to distribute it on distribution platfo MIR can help by providing tools for instruments and genre classification, en analysis, cover detection, auto-tagging and many others. Such technologies help artists and isteners to come along!

You will be involved in creating new tools to experience music in hitherto unexplored

Do you want to be a MIR researcher of the next generation?

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Can you imagine how listening to music might be in the future? And what about the process of creating it?

Nowadays music results from a creative process that starts with an original idea and culminates in releasing a song.

The truth is: creating music can be very hard.

Luckily, science can support musicians in such a process.

Music Information Research or MIR is a research field that uses information technologies to better understand and model music.

Its main aim is to develop products and services for the creation, production and distribution of music.

MIR technologies can assist musicians during composition with tools to isolate different voices, transcribe a recording, or orchestrate a melody.

They can also help during recording and production, where one needs to search for adequate content, edit it, and create the final mix.

The sound engineer can be helped by artificial intelligence during post-production while musicians can reduce mistakes while playing thanks to the feedback provided by MIR software.

Once the recording is made, artists need to distribute it on distribution platforms. MIR can help by providing tools for instruments and genre classification, emotion analysis, cover detection, auto-tagging and many others.

Such technologies help artists and listeners to come along!

MIR can also improve the experience of the listener. Thanks to virtual reality, you can listen to a song as if you were in a real concert, or even play with your favourite musicians, or simply relaxing at home.

You can discover curious facts about the music you are listening to, get to know new instruments or uncover the secrets behind a song's structure. You can even follow the score in real-time!

Music Information Researchers aren't superheroes or wizards. MIR is the result of the joint efforts of computer scientists, psychologists and musicologists. If you join this research field, you will be part of a multidisciplinary experience that involves math, computer science and perception.

You will be involved in creating new tools to experience music in hitherto unexplored ways.

Do you want to be a MIR researcher of the next generation?

### Script

- Futuristic setting
- Process of creating music
- MIR: research field that supports creation, production and distribution.
- **Creation**: isolate voices, transcribe, orchestrate.
- Recording: Edit, final mix
- Distribution: genre classification, emotion analysis, tagging...
- Listener experience (concert, playing, transcription)
- Who makes this possible? ---> MTG people
- Call to action!

Timeline	Voiceover	Description of the action	Sounds / Music
sten)			
Intro 00.00 - 00:15		Spaceship floating in the space and as a subtitle "Somewhere in space in 2080"	spaceship noise (typical sci-fi sounds EFX)
		Zoom in the space ship. A guy sitting in his ultra- modern living room (e.g. something like this) inside the spaceship.	click - click - click (browsing EFX)
	Since ages, people have been listening to music but	We see him from behind while choosing the right piece of music on a futuristic screen (like the one on the top image here but much bigger or like this one). When he finds the right music he relaxes on the sofa/space-chair (e.g. those). Maybe with a cat on his legs (actual quote, Mrs Listener with the cat, e.g. lofi girl Ahsoke or Cyberpunk)?	MASTER.main_theme (~10 sec)
	Have you ever wondered how this music is created, processed and distributed?	Zoom out of the spaceship and zoom in another galaxy-earth-continent-country-city- dirty rehearsal room where a band is thinking about a song	MASTER and fading out / away EFX as the camera zooms out
	00.00 -	Since ages, people have been listening to music but  Have you ever wondered how this music is created, processed and	Spaceship floating in the space and as a subtitle  "Somewhere in space in 2080"  Zoom in the space ship. A guy sitting in his ultramodern living room (e.g. something like this) inside the spaceship.  Since ages, people have been listening to music but  We see him from behind while choosing the right piece of music on a futuristic screen (like the one on the top image here but much bigger or like this one). When he finds the right music he relaxes on the sofa/space-chair (e.g. those). Maybe with a cat on his legs (actual quote, Mrs Listener with the cat, e.g. loft girl Ahsoka or Cyberpunk)?  Have you ever wondered how this music is created, processed and

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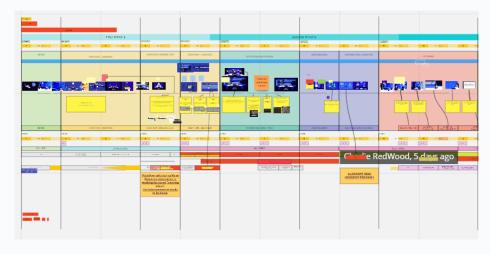
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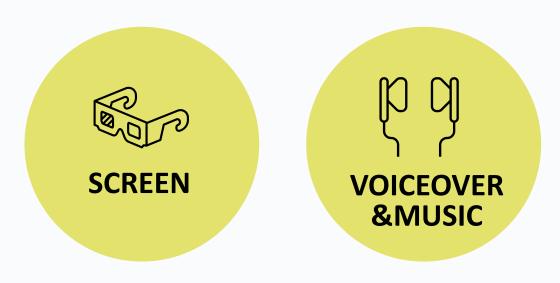
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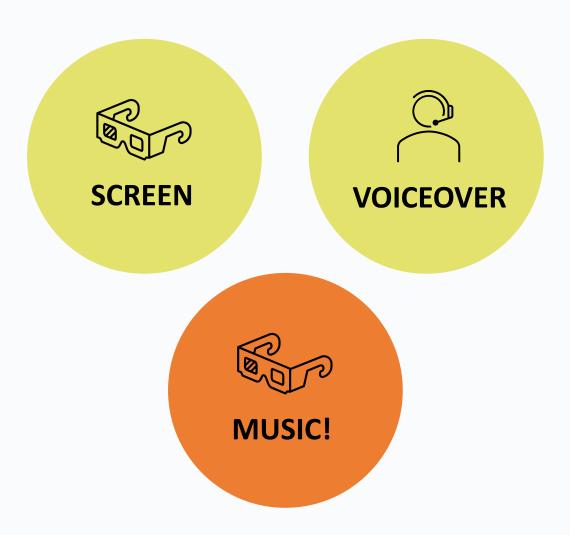
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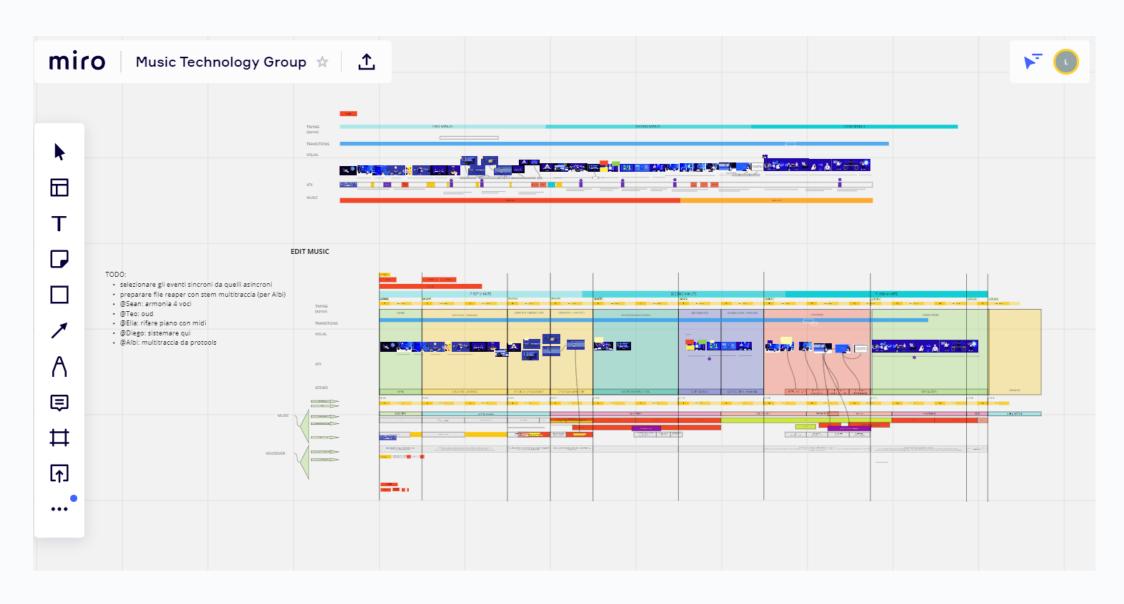
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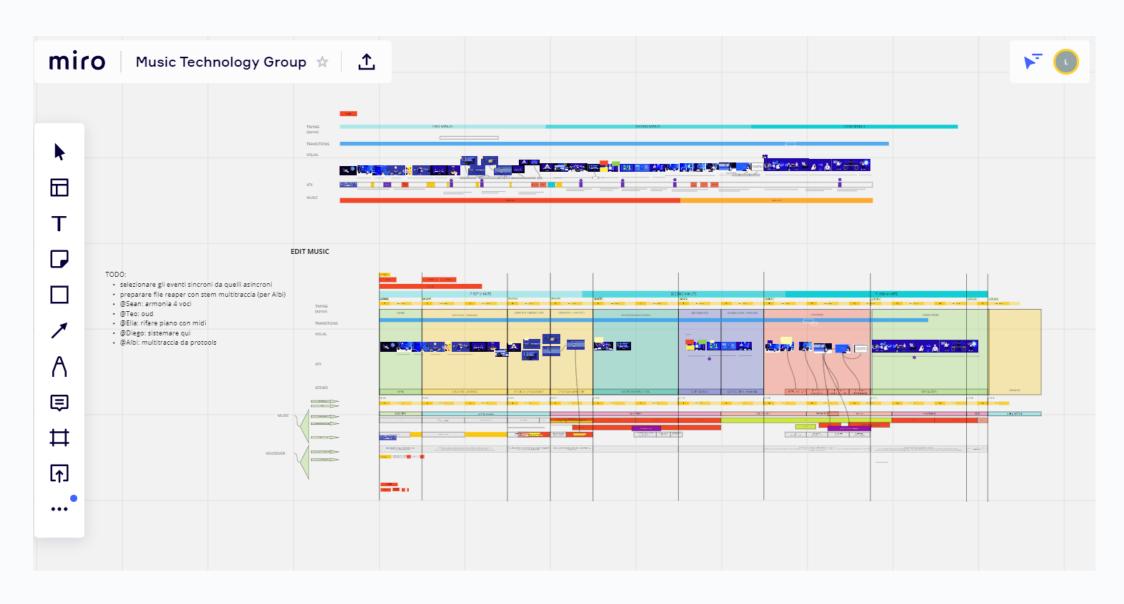






















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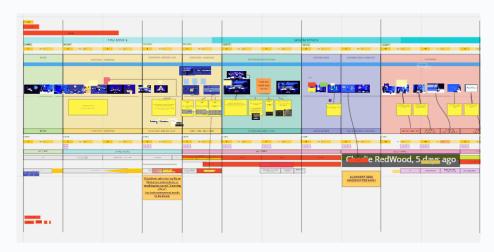
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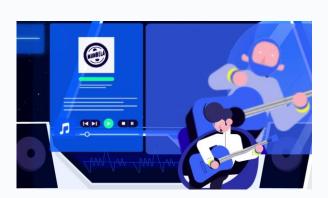
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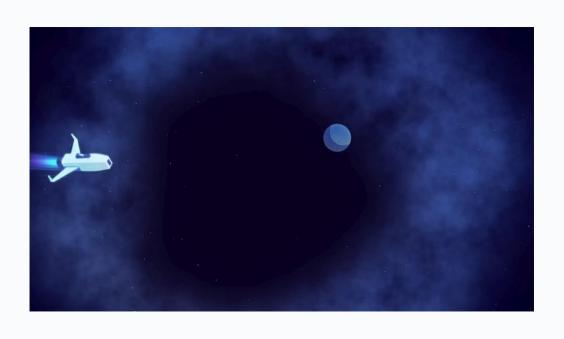
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### Feedback I



- Branding issues
- Diversity in characters
- Name of the sections to underline the structure.
- Waveforms could be more realistic.
- Instruments not matching the music
- **Editing** Raw recording. NG. Source sep. Transcription & harmonisation.
- <u>Recording</u> musicians behind the window. Audio morphing is missing, spatialization not clear.
- <u>Distribution</u> marketing team, automatic analysis vs mandela logo
- <u>Listening</u> electric guitar, mirrored screens, transition to MTG
- <u>Conclusion</u> cloud with symbols researchers not musicians.

### Feedback II



- Waveforms still not realistic enough.
- **Creation**: bass strings, add "composition" tag. NG two bars. Some tags are wrong.
- Recording: studio equipment missing, DAW showing multiple waveforms, update spatialization.
- **Music Recommendation**: syncro issues, spectrogram dynamism, music genre
- Listener experience branding
- MTG plots in background
- Call to action: upload voiceover

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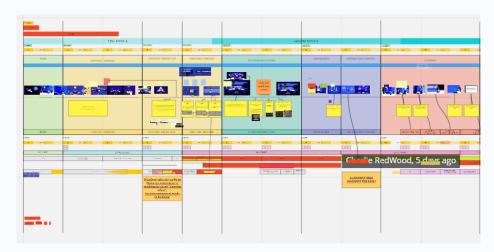
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# Thank you!

scienseed.com | lucas.sanchez@scienseed.com