

# SKCMDb

## Interoperability of Music Libraries and Archives with Public and Private Music Services

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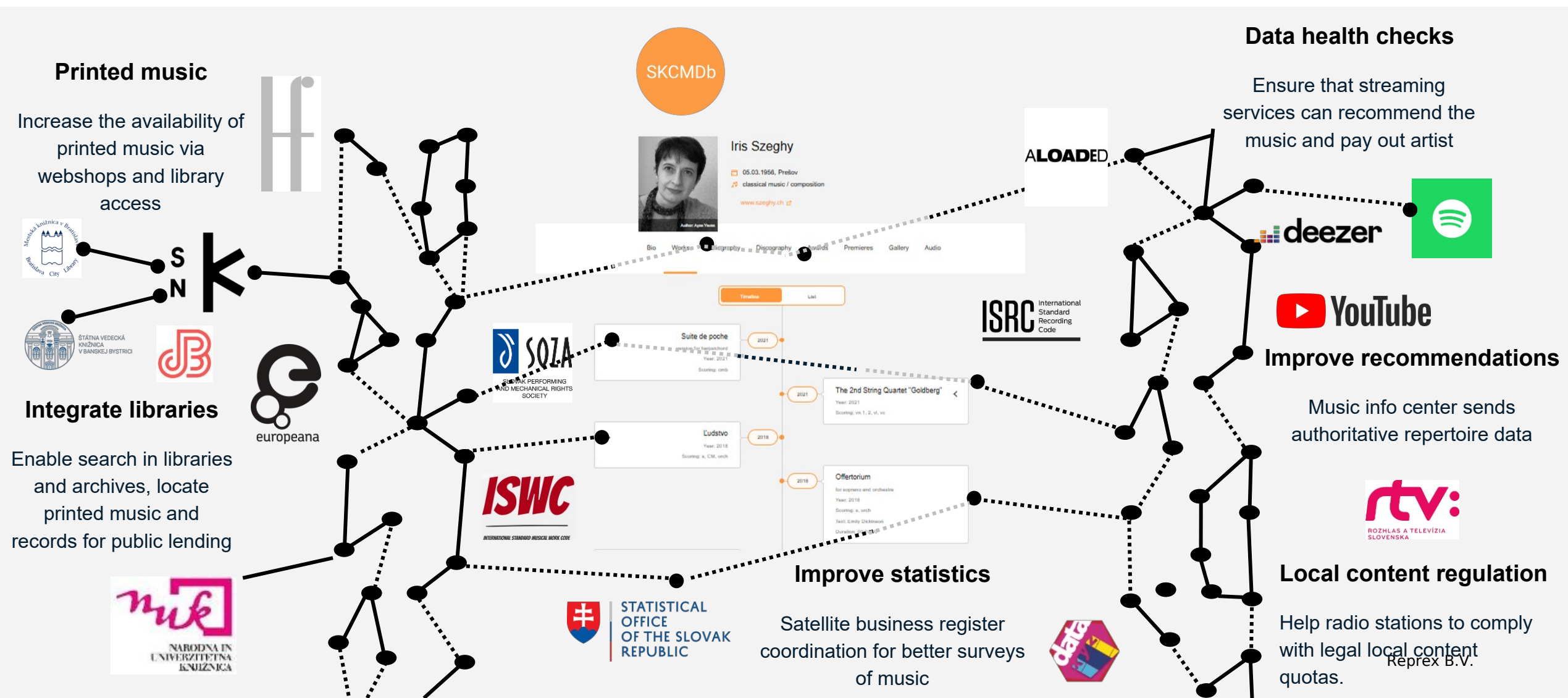
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# **From A Feasibility Study To Data Exchange**

# 01

# Data sharing and exchange in the Slovak music data sharing space



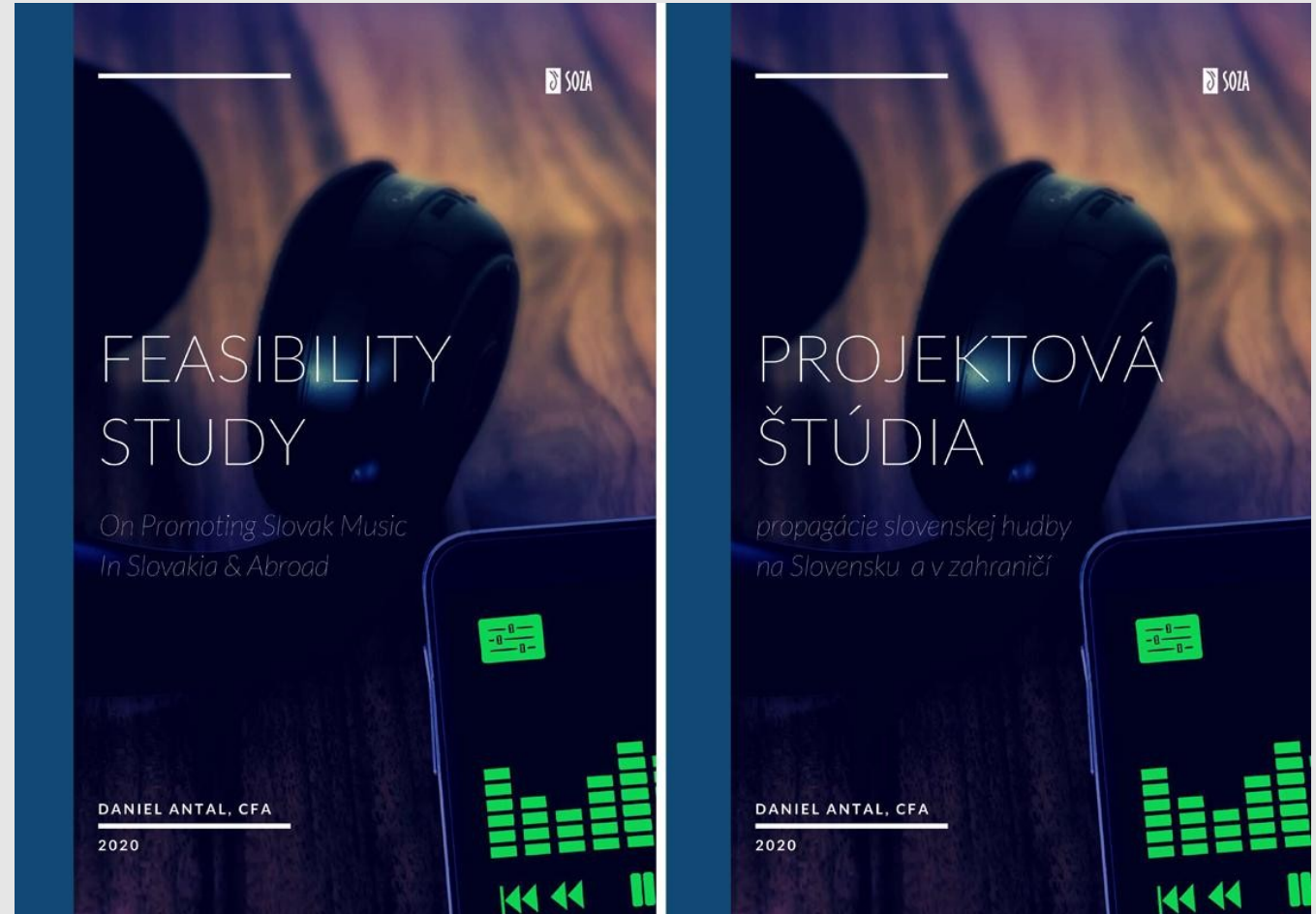
# Sustainability

Why do they not recommend music from Slovakia in Slovakia for Slovak people?

How can we avoid that small repertoires lose their original market, their only market?

## Findings

- Small repertoires have very low-quality data representation
- Because of low income, data improvement and documentation must not be expensive
- Public-Private Partnership is needed to solve data problems



# The opposite of success

It is often hard to say what would be a perfect metadata, or what we want to do with the data.

We started with the nightmare scenario: that a new release ends up on Forgotify, a funny service that plays songs which had never been played on Spotify.

We realised that many songs, often gold records, end up here with wrong data, because recommender systems place them on the wrong shelf and recommend them to an inappropriate audience.

( FORGOTIFY

## Forget Me Not.

Millions of songs on Spotify have been forgotten.  
Let's give them new life in new ears – yours.

[Start Listening](#)



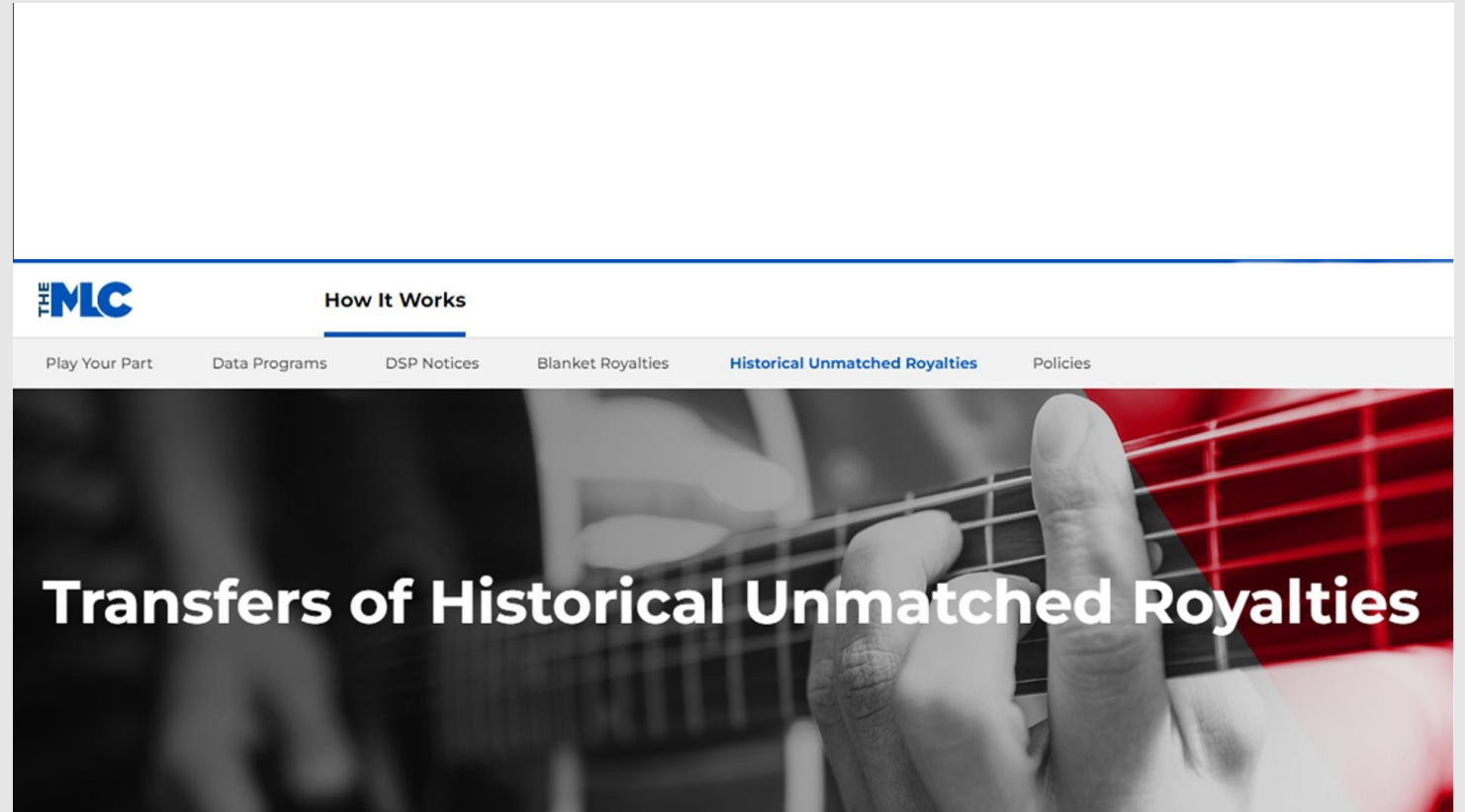
AS FEATURED ON

# What is at stake?

Wrong metadata comes with a cost. In the first 18 months of MLC, it returned a very large amount to mainly independent artists.

Our experience shows in Slovakia that similar proportions of the royalties may be late or lost due to data problems.

Often, royalties are not collected because of the high collection cost compared to the outstanding sum. We want to make royalty collection much cheaper.



## With **big data** problems everybody is **small**

The Slovak Music Dataspace is designed as a PPP, and we hope to initiate **at least metadata** cooperation between the private and public sector.

### ### very few

- Ontology engineers
- Information scientists
- Data steward and engineer
- statistician

**is available**, so cooperation is imperative



100,000  
sound recording  
Spotify: per day  
Europeana: 10 years



We are looking for ways  
for public and private  
metadata improvements

# **Building the Slovak Comprehensive Music Database**

02

# Public-Private Partnership for trustworthy music data

We create data (sharing) spaces that not only follow the models of the [European Interoperability Framework](#) and [EOSC](#) but extend to interoperability with private partners

## Open Science

Many disciplines study music, including in Open Music Europe, and we would like to reuse their data. We see the reuse of information models and ontologies for metadata improvement the most promising, because ontology development is more suitable for basic research than business.

## Public sector information reuse (open data)

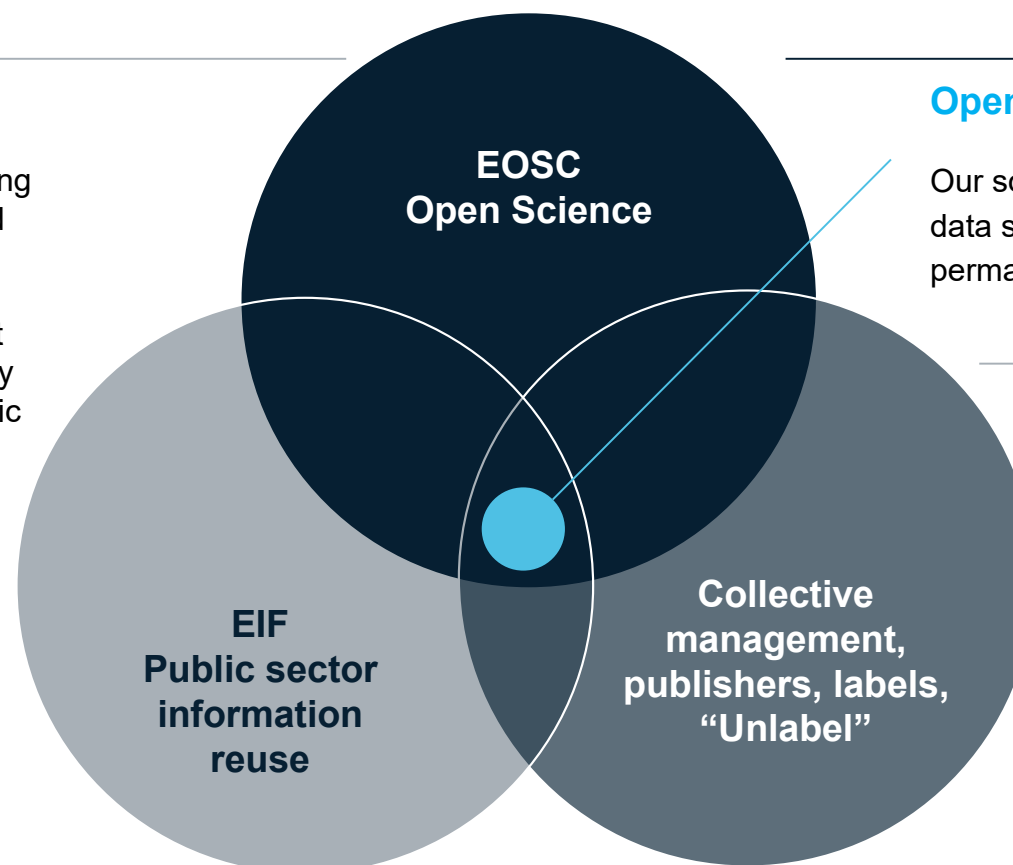
The Open Data Directive (2019/1024/EU), the Data Governance Act (2022/868/EU) gives legal access to much data for free or at marginal cost, however, these valuable data assets need to be **reprocessed** to be useful for the music sector.

## Open Music Observatory

Our solution involves the creation of a data sharing space operated by a permanent observatory.

## Coordination of privately-held and public sector data

The Data Governance Act and various statistical regulations allowing novel data coordination between privately-held and governmental data. We want to facilitate “experimental statistics” and novel music library products to help metadata-poor rightsholders to become competitive in the digital space.

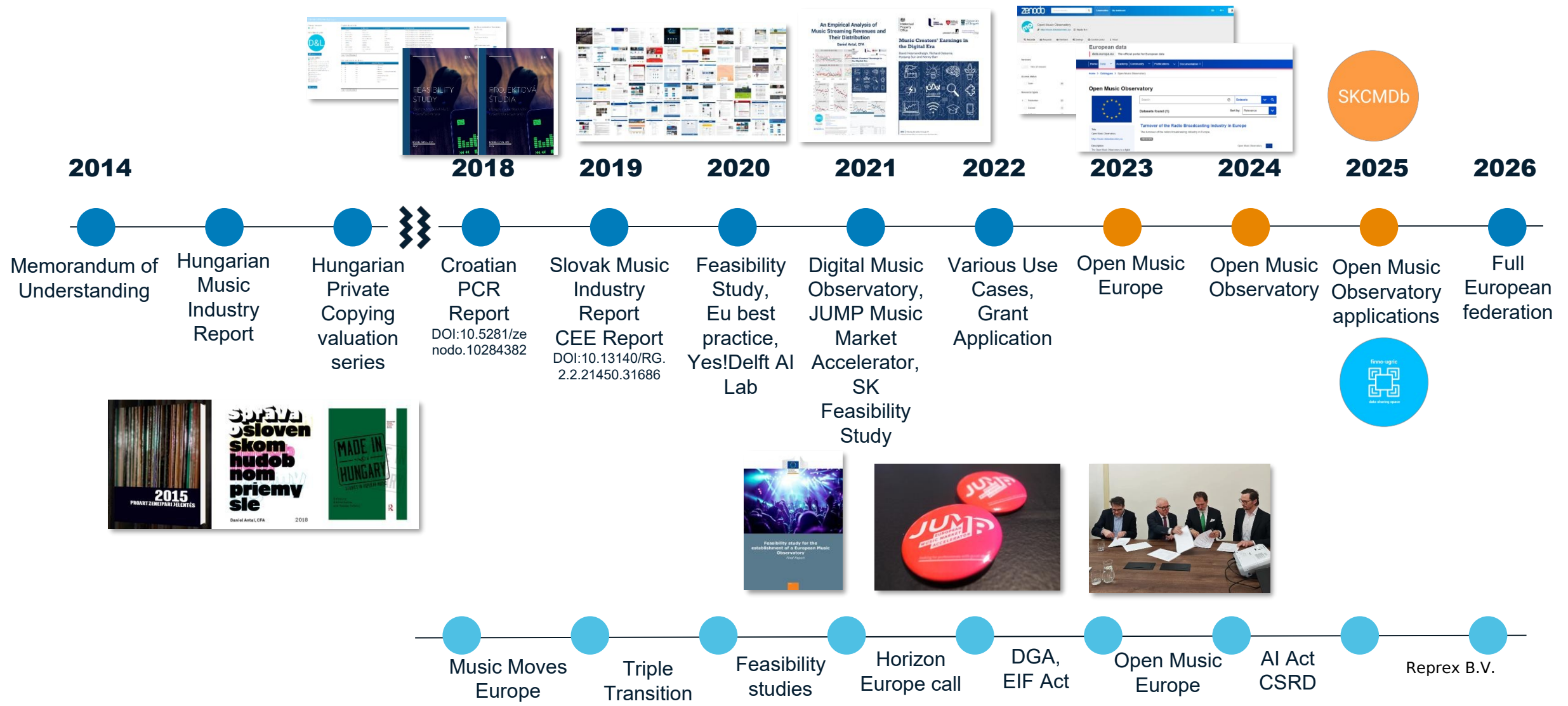


# Case study: MIC Information Could Be Improved

|    | A           | B                    | C                      | D      | E               | F              | G            | H            | I               | J                       | K                        | L                   | M                | N   | O   | P   | Q   | R   | S   | T   | U   | V   | W   | X   |
|----|-------------|----------------------|------------------------|--------|-----------------|----------------|--------------|--------------|-----------------|-------------------------|--------------------------|---------------------|------------------|---|---|---|---|---|---|---|---|---|---|---|
|    | in_playlist | name                 | type                   | gender | data_of_birth   | inception_date | years_active | origin_place | residence_place | music_scene             | genre                    | language(s)         | official_website | mic_url   | wikipedia_url   | wikidata_url  | spotify   | youtube   | instagram   | facebook  | twitter   | email   | phone_number  | name_info_web   |
| 1  | no          | Ale Vis              | Music band             |        |                 | 1995           | 1995-1       | Kaunas       |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>               | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>   | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>   | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>   | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>   | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>   | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>               | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>               | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>               | <a href="https://www.mic.lt/vis/">https://www.mic.lt/vis/</a>               |   |
| 2  | no          | Ryta Andruskevicius  | Music artist           | Male   | 27 August 1961  | 1985           | 1985         | Kaunas       |                 | folk-rock, post-folk    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>             | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>   | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>   | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>   | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>   | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>   | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>             | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>             | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>             | <a href="https://www.mic.lt/ryta/">https://www.mic.lt/ryta/</a>             |   |
| 3  | yes         | Alaija               | Music band             |        |                 | 1995           | 1995         | Kaunas       |                 | folk-rock               | folk-rock                | Lithuanian          |                  | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>         | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>   | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>   | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>   | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>   | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>   | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>         | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>         | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>         | <a href="https://www.mic.lt/alaija/">https://www.mic.lt/alaija/</a>         |   |
| 4  | yes         | Bango Collective     | Music band             |        |                 |                |              | Vilnius      | Vilnius         | substep                 | hip-hop, dubstep         | Lithuanian, Russian |                  | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>           | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>   | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>   | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>   | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>   | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>   | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>           | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>           | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>           | <a href="https://www.mic.lt/bango/">https://www.mic.lt/bango/</a>           |   |
| 5  | yes         | Dorotas Beikauskas   | Musical artist         | Male   | 1977            | 1995           | 1995         | Jurbarkas    |                 | ambient, neo-folk       | post-folk                | Lithuanian          |                  | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>       | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>   | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>   | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>   | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>   | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>   | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>       | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>       | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>       | <a href="https://www.mic.lt/dorotas/">https://www.mic.lt/dorotas/</a>       |   |
| 6  | yes         | Egipijus Danile      | Musical artist         | Male   | 1972            |                |              | Utena        | Baikalas        | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>     | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>   | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>   | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>   | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>   | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>   | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>     | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>     | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>     | <a href="https://www.mic.lt/egipijus/">https://www.mic.lt/egipijus/</a>     |   |
| 7  | no          | Funa                 | Music project          | Male   |                 | 2012-2013      | 2012         |              |                 | ambient                 | ambient                  | Lithuanian          |                  | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>             | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>   | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>   | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>   | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>   | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>   | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>             | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>             | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>             | <a href="https://www.mic.lt/funa/">https://www.mic.lt/funa/</a>             |   |
| 8  | yes         | Jurga Gaižauskas     | Composer               | Male   | 23 October 1922 |                |              | Kaunas       |                 | classical, folk         | classical, folk          | Lithuanian          |                  | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>   | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>   | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>   | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>   | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>   | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           | <a href="https://www.mic.lt/jurga/">https://www.mic.lt/jurga/</a>           |
| 9  | no          | Gila                 | Music band             |        |                 | 1994           | 1994         | Kaunas       |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>             | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>   | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>   | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>   | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>   | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>   | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>             | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>             | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>             | <a href="https://www.mic.lt/gila/">https://www.mic.lt/gila/</a>             |   |
| 10 | yes         | Qing Duosuo          | Musical project        | Male   | August 28, 1987 | 2009           | 2009         | Kaunas       | Mateikiai       | folk, techno, folk      | dub                      | Lithuanian          |                  | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>   | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>   | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>   | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>   | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>   | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             | <a href="https://www.mic.lt/qing/">https://www.mic.lt/qing/</a>             |
| 11 | yes         | Gryta                | Music band             |        |                 | 2009           | 2009         | Mateikiai    |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>           | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>   | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>   | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>   | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>   | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>   | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>           | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>           | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>           | <a href="https://www.mic.lt/gryta/">https://www.mic.lt/gryta/</a>           |   |
| 12 | yes         | Griekaitis           | Music band             |        |                 |                |              |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a> | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a>   | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a>   | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a>   | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a>   | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a>   | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a> | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a> | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a> | <a href="https://www.mic.lt/griekaitis/">https://www.mic.lt/griekaitis/</a> |   |
| 13 | no          | Intakas              | Music band             |        |                 | 1989           | 1989         |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>       | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>   | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>   | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>   | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>   | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>   | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>       | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>       | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>       | <a href="https://www.mic.lt/intakas/">https://www.mic.lt/intakas/</a>       |   |
| 14 | no          | Joni                 | Music band             |        |                 | 1984           | 1984         |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             |   |
| 15 | no          | Joni                 | Music band             |        |                 | 1984           | 1984         |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>   | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             | <a href="https://www.mic.lt/joni/">https://www.mic.lt/joni/</a>             |   |
| 16 | no          | Vytautas Juozapaitis | Music artist, composer | Male   | 2 December 1936 |                |              | Vilnius      | Vilnius         | folk, classical         | folk, classical          | Lithuanian          |                  | <a href="https://www.mic.lt/vytautas/">https://www.mic.lt/vytautas/</a>     | <a <="" a="" href="https://www.mic.lt/vytautas/&lt;/a&gt;&lt;/td&gt;&lt;td&gt;&lt;a href=" https:="" vytautas="" www.mic.lt=""></a> | <a <="" a="" href="https://www.mic.lt/vytautas/&lt;/a&gt;&lt;/td&gt;&lt;td&gt;&lt;a href=" https:="" vytautas="" www.mic.lt=""></a> | <a <="" a="" href="https://www.mic.lt/vytautas/&lt;/a&gt;&lt;/td&gt;&lt;td&gt;&lt;a href=" https:="" vytautas="" www.mic.lt=""></a> | <a <="" a="" href="https://www.mic.lt/vytautas/&lt;/a&gt;&lt;/td&gt;&lt;td&gt;&lt;a href=" https:="" vytautas="" www.mic.lt=""></a> | <a <="" a="" href="https://www.mic.lt/vytautas/&lt;/a&gt;&lt;/td&gt;&lt;td&gt;&lt;a href=" https:="" vytautas="" www.mic.lt=""></a> |   |   |   |   |   |
| 17 | yes         | Indra Jurgilevičiūtė | Musical artist         | Female |                 |                |              | Kaunas       |                 | electronic, folk        | electronic, folk         | Lithuanian          |                  | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>   | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>   | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>   | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>   | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>   | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           | <a href="https://www.mic.lt/indra/">https://www.mic.lt/indra/</a>           |
| 18 | yes         | Kamajis Dile         | Music band             |        |                 | 2011           | 2011         | Vilnius      | Vilnius         | indie, folk             | indie, folk, alternative | Lithuanian          |                  | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>   | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>   | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>   | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>   | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>   | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       | <a href="https://www.mic.lt/kamajis/">https://www.mic.lt/kamajis/</a>       |
| 19 | yes         | Kauno folkloro grupė | Musical project        | Male   |                 | 1989-2021      | 1989-2021    | Kaunas       |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>   | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>   | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>   | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>   | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>   | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           | <a href="https://www.mic.lt/kauno/">https://www.mic.lt/kauno/</a>           |
| 20 | yes         | Algis Kivla          | Music artist           | Male   | 26 October 1958 | 1984           | 1984         | Kaunas       |                 | folk, world             | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>   | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>   | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>   | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>   | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>   | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           | <a href="https://www.mic.lt/algis/">https://www.mic.lt/algis/</a>           |
| 21 | yes         | Kilgirda             | Music band             |        |                 | 1984           | 1984         |              |                 | pop-folk                | pop-folk                 | Lithuanian          |                  | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>     | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>   | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>   | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>   | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>   | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>   | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>     | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>     | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>     | <a href="https://www.mic.lt/kilgirda/">https://www.mic.lt/kilgirda/</a>     |   |
| 22 | yes         | Lainioja             | Music band             |        |                 | 2010           | 2010         |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>     | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>   | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>   | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>   | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>   | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>   | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>     | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>     | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>     | <a href="https://www.mic.lt/lainioja/">https://www.mic.lt/lainioja/</a>     |   |
| 23 | yes         | Liberte              | Music band             |        |                 | 2010           | 2010         |              |                 | folk                    | folk                     | Lithuanian, Russian |                  | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>   | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>   | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>   | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>   | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>   | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       | <a href="https://www.mic.lt/liberte/">https://www.mic.lt/liberte/</a>       |
| 24 | yes         | Lyla                 | Music band             |        |                 | 2004           | 2004         |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>   | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>   | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>   | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>   | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>   | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               | <a href="https://www.mic.lt/yla/">https://www.mic.lt/yla/</a>               |
| 25 | no          | Mikšas               | Music project/Album    |        |                 | 2013           | 2013-2014    |              |                 | folk, world             | folk, world              | Lithuanian          |                  | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>   | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>   | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>   | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>   | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>   | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         | <a href="https://www.mic.lt/miksas/">https://www.mic.lt/miksas/</a>         |
| 26 | yes         | Marga muzika         | Music band             |        |                 | 2009           |              |              |                 | world                   | folk, world              | Lithuanian          |                  | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>   | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>   | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>   | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>   | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>   | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           | <a href="https://www.mic.lt/marga/">https://www.mic.lt/marga/</a>           |
| 27 | yes         | Merga                | Music band             |        |                 |                |              |              |                 | folk, world             | folk, world              | Lithuanian          |                  | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>   | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>   | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>   | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>   | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>   | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           | <a href="https://www.mic.lt/merga/">https://www.mic.lt/merga/</a>           |
| 28 | yes         | Miglauskas           | Music band             |        |                 |                |              |              |                 | folk, world             | folk, world              | Lithuanian          |                  | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a>   | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a>   | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a>   | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a>   | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a>   | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> | <a href="https://www.mic.lt/miglauskas/">https://www.mic.lt/miglauskas/</a> |
| 29 | yes         | Obelija              | Music band             |        |                 |                |              |              |                 | folk                    | folk                     | Lithuanian          |                  | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>   | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>   | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>   | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>   | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>   | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       | <a href="https://www.mic.lt/obelija/">https://www.mic.lt/obelija/</a>       |
| 30 | yes         | OKATA                | Music band             |        |                 |                |              |              |                 | electronic, folk, world | world, electronic        | Lithuanian          |                  | <a href="https://www.mic.lt/okata/">https://www.mic.lt/okata/</a>           | <a href="https://www.mic.lt/okata/">https://www.mic.lt/okata/</a>   | <a href="https://www.mic.lt/okata/">https://www.mic.lt/okata/</a>   | <a href="https://www.mic.lt/okata/">https://www.mic.lt/okata/</a>   | <a href="https://www.mic.lt/okata/">https://www</a>   |   |   |   |   |   |   |

# Open Music Observatory Timeline

From CEEMID via Open Music Europe towards a decentralised music observatory data sharing space

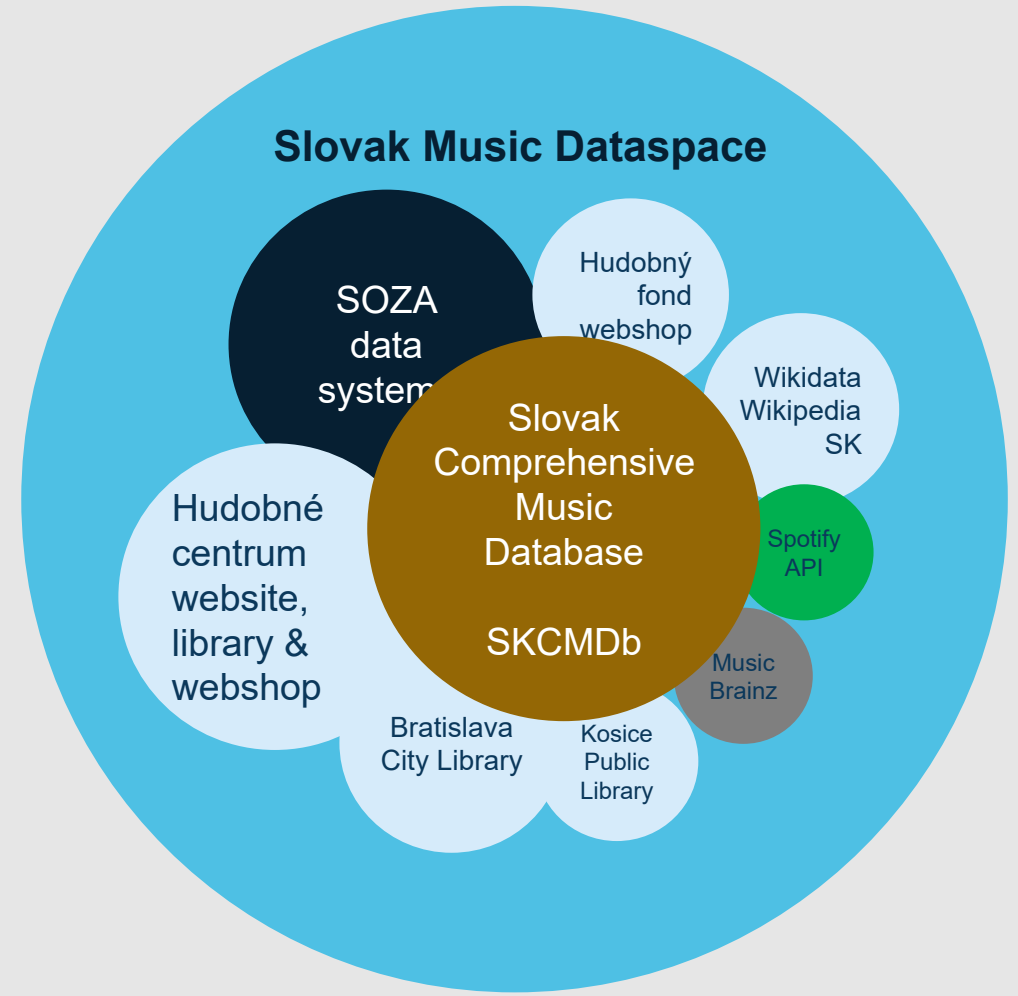


# Slovak Music Dataspace

A space to share data securely among Slovak data owners

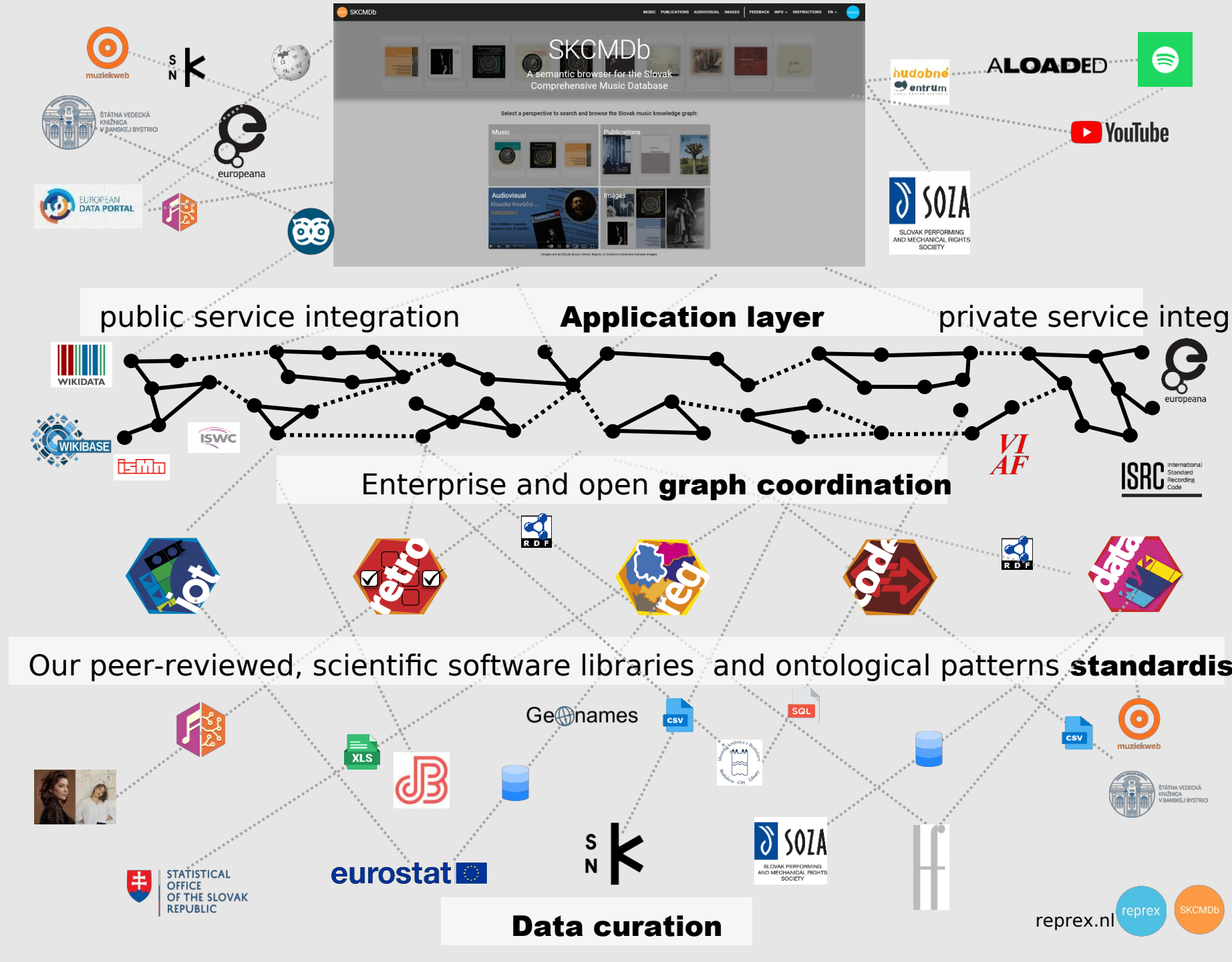
„A **dataspace** is an emerging approach to data management. To reduce the initial effort required for data integration, it offers a set of legal, organisational, semantic, and technical protocols to map the potential benefits of a future data exchange.

In the data (sharing) space, **data integration** only happens on an "**as-needed**," "**as-permitted**," or "**as-agreed**" basis, with some of the labour or negotiation-intensive data integration aspects postponed until they are genuinely needed. ”



# Dataspace for the European music sector

Our ReprexBase system combines Wikibase with a peer-reviewed set of software libraries for statistically valid indicator production, impact and materiality testing.



# **Ontological Modelling and Metadata Pragmatics**

03

**Data curation** is the organisation and integration of data collected from various sources.

It involves annotation, publication and presentation of the data so that the value of the data is maintained over time, and the data remains available for reuse and preservation.





# DCTERMS patterns

**Allow sufficient mapping to/from DCTERMS and interoperability with other industry and domain standards like DDEX, Wikidata, Polifonia, RiC and CIDOC**

- No new ontology development
- Use eXtreme Design for designing system competencies
- Ontological patterns to pragmatically work with music distributors and rights managers who work with DDEX
- For cultural sector, with CIDOC museums, old ISAD(G) and RiC archives
- DCTERMS / DataCite for EOSC – Dariah data
- DCTERMS / Europeana

The screenshot displays the SKCMDB interface. On the left is a sidebar with navigation links: Main page, Recent changes, Random page, Help about MediaWiki, Tools (What links here, Related changes, Special pages, Printable version, Permanent link, Page information, Concept URI), Wikibase (New item, New property, Set item sitelink, Set item/Property label, description and aliases, Items without sitelinks, All properties, All items, Bot passwords), and In other languages (Add links). The main content area is titled 'String Quartet in B Flat Major (printed, SHF) (Q271)' and includes a discussion tab. Below the title, it states 'printed sheets of the work composed by Ján Levoslav Bella' and 'Sláčikové kvarteto B dur'. A table shows the item in English: 'String Quartet in B Flat Major (printed, SHF)' with the description 'printed sheets of the work composed by Ján Levoslav Bella'. The 'Statements' section lists three instances: 'instance of' (printed sheet music), 'has access point' (http://opac.mestskakniznica.sk/opac/openURL?sid=HU020546/B, access applies to Mestská knižnica v Bratislave), and 'has access point' (https://chamo.kis3g.sk/lib/item?id=chamo:9892679&theme=svkbb, access applies to Štátna vedecká knižnica v Banskej Bystrici, and https://sclib.svkk.sk/sck01/Record/000397518, access applies to State Scientific Library Košice).

# Multilingual Geographic Reconciliation

## Library records are often “timecapsules”

- **L’udovít Rajter** (1906–2000), a Slovak composer and conductor.
- Born in the Hungarian Kingdom (Austria-Hungary), citizen of Czechoslovakia and Slovakia. Studied in Hungary, his name was also used as “**Rajter Lajos**”.
- Birthplace is recorded as “**Pezinok**” in Slovak, “**Bazin**” in Hungarian, and “**Bösing**” in historical German sources.
- Geographical, corporate body names, and married names change over her lifetime.
- A convergence to the same identifier (“named-entity ambiguity resolution”) is not only needed for international federation, but for understanding historical records.

| Slovak     | Hungarian   | German     | Ukrainian / Ruthenian | GeoNames | VIAF ID   |
|------------|-------------|------------|-----------------------|----------|-----------|
| Slovensko  | Szlovákia   | Slowakei   | Словаччина            | 3057568  | 130796284 |
| Bratislava | Pozsony     | Pressburg  | Братислава            | 3060972  | 126115307 |
| Košice     | Kassa       | Kaschau    | Кошиці / Кошице       | 724443   | 243674873 |
| Prešov     | Eperjes     | Preschau   | Пряшів                | 723846   | 238550385 |
| Levoča     | Lőcse       | Leutschau  | Левоча                | 724443   | 240359380 |
| Komárno    | Komárom     | Komorn     | Комарно               | 3058716  | 230898250 |
| Bardejov   | Bártfa      | Bartfeld   | Бардіїв               | 722433   | 234326796 |
| Trebišov   | Tőketerebes | Trebischau | Требішів              | 723500   | 236151935 |
| Michalovce | Nagymihály  | Großmichel | Михайлівці            | 724510   | 236047544 |
| Rožňava    | Rozsnyó     | Rosenau    | Рожнява               | 723187   | 239602891 |

# Thesaurus Patterns

## Allow sufficient mapping to/from library, heritage and music applications

- **Getty AAT: 300025576 (researchers)**  
<http://vocab.getty.edu/page/aat/300025576>
- **MUIS.EE: the thesaurus of the Estonian museum system**  
<http://opendata.muis.ee/thesaurus/203/13580>
- **ESCO: textile researcher**
- **NACE: 72.2 research and development on humanities and arts**

**SKC MDB**

**composer** (Q484)

a creator (author) of the musical elements of a musical work.

Wikipedia (0 series) edit

| Language | Label    | Description   | Also known as |
|----------|----------|---|---------------|
| English  | composer | a creator (author) of the musical elements of a musical work. |               |

**Statements**

instance of

- occupation (0 references) + add reference
- musical profession (0 references) + add reference

subclass of

- author (0 references) + add reference
- musician (0 references) + add reference

taxonomic code

- 2652.1 taxonomy scheme ESCO - European Skills, Competences, Qualifications and Occupations (0 references) + add reference

**Identifiers**

Wikidata QID

- Q36834 (0 references) + add reference

Art & Architecture Thesaurus ID

- 300025571 (0 references) + add reference

Library of Congress authority ID

- sh85029386 (0 references) + add reference

# Integrating Library Services

## Find scores of works in catalogues and webshops

- People expect to find musical work level information (perhaps by browsing playlists of recordings)
- Printed sheet music is usually a volume of several works, in which case the library catalogue may not have the work name at all.
- In Slovakia, there is no centralised national catalogue system, so searching for an available sheet for loan would possibly require more than 20 searches in different catalogue systems.

The screenshot displays the SKCMDb Publications interface. On the left, there are search filters under 'Narrow down by:' including Author, Type of Publication, Publisher, Publication Date, Language, Location, and Location Qualifier. Below these is an 'Access Type' section with a search bar and a list of checkboxes for different access methods and their counts: Unknown [17], webshop [4], Bratislava City Library [3], State Scientific Library Košice [2], Štátna vedecká knižnica v Banskej Bystrici [2], online shop [1], and PDF download (English) [1]. The main area on the right shows a table of 24 publications. The table has columns for Title and Language. The first row is 'Feasibility Study On Promoting Slovak Music In Slovakia & Abroad ...' in English. Subsequent rows list various musical works, including 'String Quartet in B flat Major (printed, Hudobné centrum) ...', 'Sonáta b moll pre klavír (print)', 'Missa in C (printed, Hudobné centrum)', 'Johann Nepomuk Hummel: A Musician's Life and World', 'The Million Song Dataset', 'Te Deum in E-Flat Major', and 'Sláčikové kvarteto g mol ...'. The last row is 'Missa Virorum polyphoniae adaptata, op. 6 (printed, Hudobné Centrum)'.

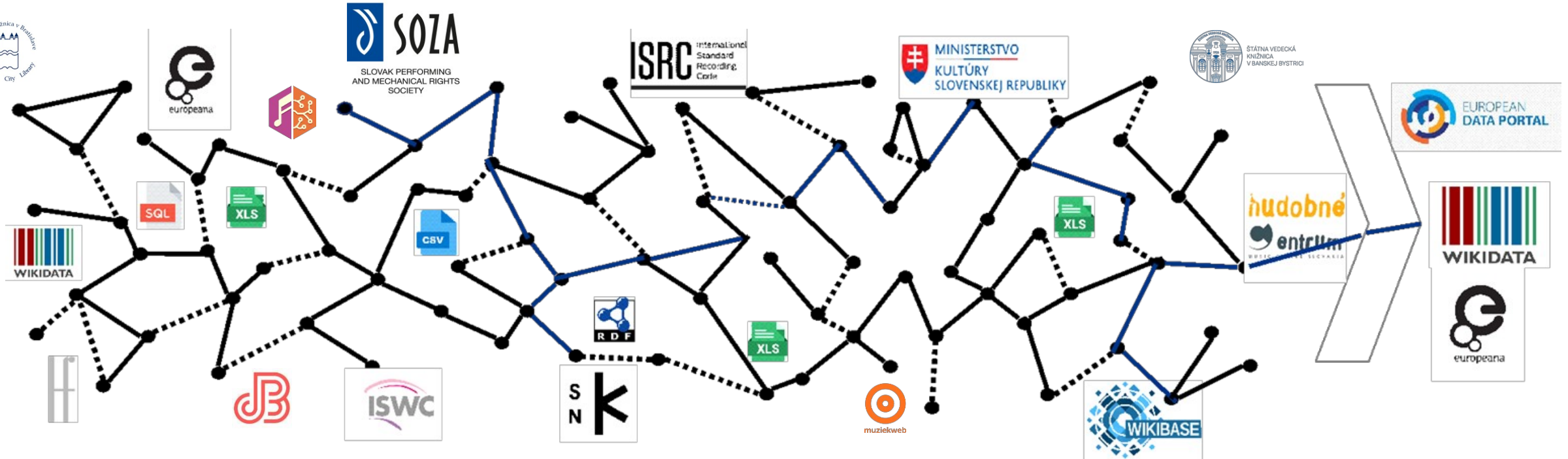
| Title  | Language    |
|--|-------------|
| Feasibility Study On Promoting Slovak Music In Slovakia & Abroad ... | English ... |
| String Quartet in B flat Major (printed, Hudobné centrum) ...        | -           |
| String Quartet in B Flat Major (printed, SHF)                        | -           |
| Sonáta b moll pre klavír (print)                                     | -           |
| Missa in C (printed, Hudobné centrum)                                | -           |
| Johann Nepomuk Hummel: A Musician's Life and World                   | -           |
| The Million Song Dataset   | -           |
| Te Deum in E-Flat Major  | -           |
| Sláčikové kvarteto g mol ...   | -           |
| Missa Virorum polyphoniae adaptata, op. 6 (printed, Hudobné Centrum) | -           |

# **Governance**

04

# Multi-Organisation Exchange Requires Governance of Continuous Data Improvement, Better Standardisation

SKCMDb



## 1. Data enrichment

Reprex consolidates the data Excel, CSV, SQL and other database (data file) formats of SOZA, Slovak Music Centre, Music Fund, and other organisations into a graph format. We assist curators to find and improve errors in their metadata. We ensure that the resulting data is more usable for rights management, heritage management, publishing.

## 2. Data dissemination

We send the enriched and proprietary (confidential) data to the systems of SOZA, Slovak Music Centre, Music Fund or other participants. We sent the public data to the EU Open Data Portal (statistical data), to EOSC (data of scientific value), collections data (Europeana and ECCH), and biographical and repertoire data to Wikidata and Wikipedia. This way streaming providers can use reliable data about Slovak music.

Reprex B.V.

# European Interoperability Framework: Layers of Service Interoperability



## Legal interoperability

Rules of the data exchanges and use is harmonised to a level that negotiations and permits can be obtained fast to join the data.



## Organisational interoperability

Organisations are harmonise their internal workflows and jobs that use data to benefit the most from improving and enriching their own data with other sharing partner's data.



## Semantic interoperability

The jobs and workflows of the organisations in the data space share a vocabulary of meanings of the collected and shared data's definitions and meanings.



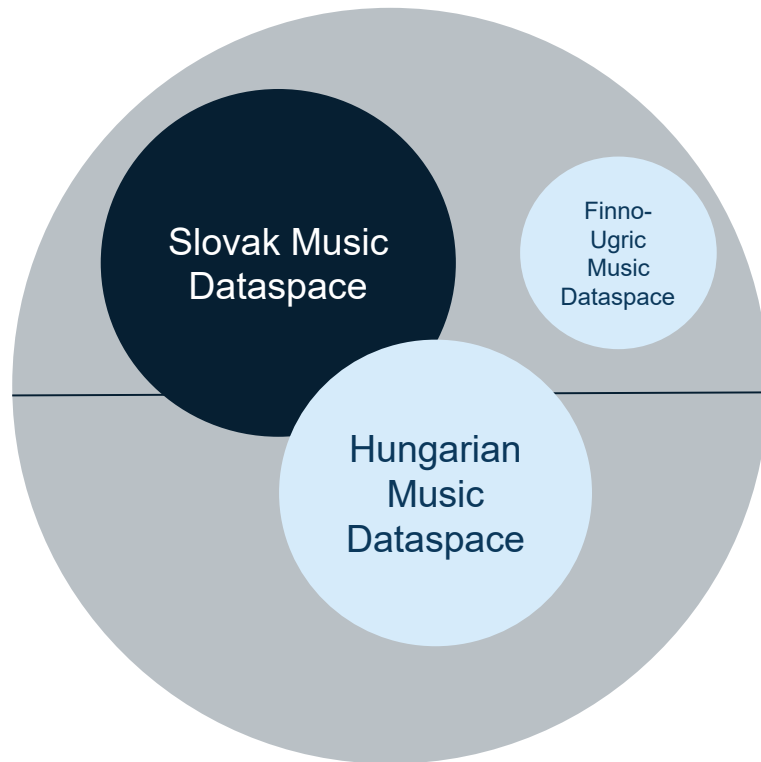
## Technical interoperability

The data is translated to a standard graph format with shared annotation so that it can be easily exchanged, synchronized among partners.

Integrated service governance

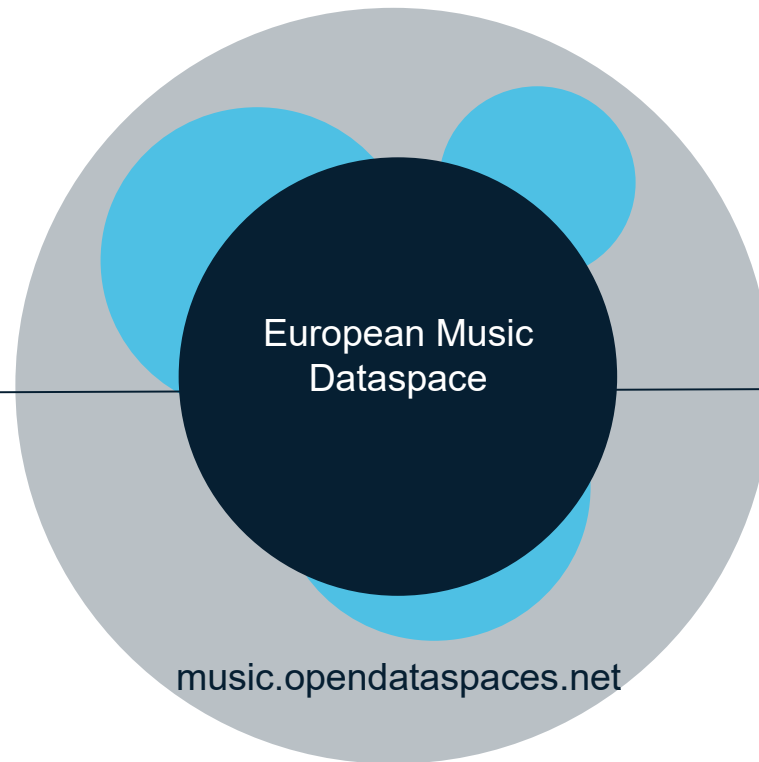
# From the Slovak music data sharing space to a bottom-up music ob

Replicable national interoperability system:  
**Slovak Music Dataspace**



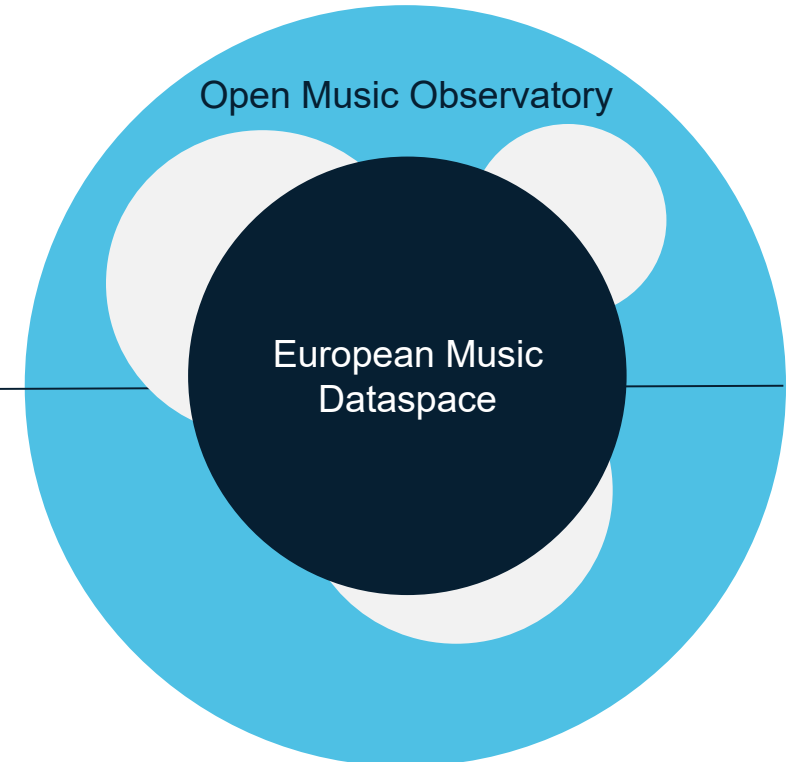
We create compatible data sharing systems in countries, genres, regions on a bottom up way.

Data federation of compatible modules  
**European Music Dataspace**



The European Music Dataspace is a federation of any dataspace that follow our model developed in Slovakia.

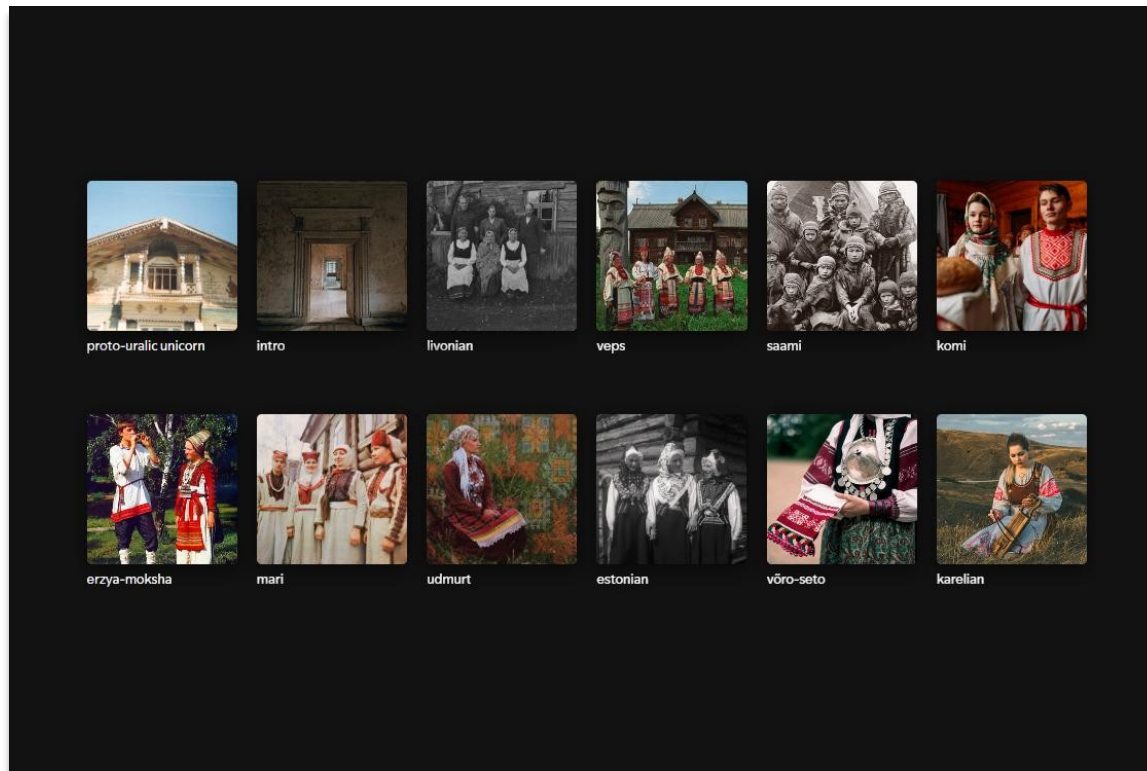
Organisation for funding, rules  
**Open European Music Observatory**



We are recommending the creation of a similar organisation to Europeana.

# Replication: not only for national repertoires

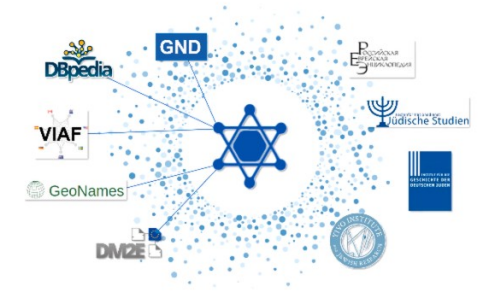
Popular music in Finno-Ugric endangered languages and connecting Jewish music heritage



## Listen Local Judaica

[Home](#) [News](#) [Contributors](#) [Persons & Groups](#) [Music](#) [Contact & Events](#) [Q](#)

**Listen Local Judaica** is an experimental data service that helps connect the music heritage and new, vibrant music scene of the Jewish diaspora worldwide, interconnecting it with libraries, music libraries, heritage organizations, global music encyclopedias, and at the same time, find audiences for them.



# Locally Relevant Recommendations

Find music composed in Bratislava, recorded in Bratislava, or songs about Bratislava; fulfil local content guidelines for public broadcasting and commercial radio quotas.

SKCMDb

MUSIC

PUBLICATIONS

AUDIOVISUAL

IMAGES

Music

Results: 12 tracks

Narrow down by:

Part of Collection

Language

Performer

Location

Search...

Unknown [11]

Slovakia [1]

TABLE

Rows per page101-10 of 12

| Title   | Language | Spotify Track URL      | Location       |
|---|----------|------------------------|----------------|
| String Quartet in B Flat Major (Moyzes Quartet) | -        | -                      | -              |
| Zvonky, zvoňte (SKA126923701)                   | Slovak   | 4YhchBLYeQCwnyvqBf9o1w | Bratislava ... |
| Zvonky, zvoňte ...                              | Slovak   | 4QKnfWdPdyICDbEyflBJ11 | -              |
| Slovenské klavírne sonatíny ...                 | -        | -                      | -              |
| Missa in C (recording)                          | -        | -                      | -              |
| Missa in C - Kyrie (recording)                  | Latin    | 7kFiVA90o0u01QQydol07X | -              |
| Missa in C - Gloria (recording)                 | Latin    | 682fFGapMt7qJukDZAaiZb | -              |
| Missa in C - Credo (recording)                  | Latin    | 2ijUtvLbTSY6BbmlAitqXk | -              |
| Missa in C - Sanctus (recording)                | Latin    | 3UUnVX1GSH5N2hfgecSBze | -              |
| Missa in C - Benedictus (recording)             | Latin    | 63CQb50Lh0tWBz9bcxpBYj | -              |

Reprex B.V.

**Invitation:  
ECCCH,  
Europeana &  
European  
Music  
Observatory**

05

# Feasibility study for a European Music Observatory

Key policy document guiding our work

Identifies nearly **40 data gaps** that burden both policy work and music business operations. These include data that are:

- **Scarce** - the amount of available data is insufficient)
- **Fragmented** - data has to be collected from numerous different sources)
- **Hidden** - data might well exist, but cannot be found
- **Restricted** - the data cannot be accessed due to technical or IP barriers
- **Unharmonised** - the accessed data needs extensive and resource-intensive pre-processing

We have demonstrated that many of these gaps can be filled through open data reuse, cross-stakeholder data sharing, improved surveying, harmonisation, and other novel methods.



# Building of the EMO, modelled after the Europeana project



# Contacts

05



**An open, scalable  
data-to-policy  
pipeline for European  
Music Ecosystems**

Open Music Europe: <https://openmuse.eu>

## SKCMDb

A semantic browser for the Slovak  
Comprehensive Music Database

Select a perspective to search and browse the Slovak music knowledge graph:

## Music



## Publications



## Audiovisual

Kludia Kováča vol. 2

**HUMORESKA**

Noty nájdete v časopise  
Hudobný život 01-02/2021



## Images



Images are by Slovak Music Centre, Reprex, or Creative Commons licensed images.

# REPREX

## Algorithms that work for all

As members of the Dutch AI Coalition, we help public and private users adopt AI they can trust. Our solutions meet the strictest regulatory standards and are built for sensitive sectors—banking, cultural heritage, education—where fairness, transparency, and accountability are essential. We design AI systems that legal, auditing, and sustainability teams can confidently and conveniently control.



## Big data for all

Our data sharing space model standardises access and governance, enabling public and private partners to share data safely for training AI. We connect open government, open science, and sector-specific datasets—so even small actors can benefit from large-scale, compliant data use.



## Open technology for all

We build and maintain open-source libraries and components that extend the R data ecosystem and leading graph tools. But we don't stop at code—we customise, integrate, and deliver them as Software-as-a-Service (SaaS), so even small institutions can benefit without local IT support.



## Open knowledge for all

Most organisations don't have access to true big data—but they can tap into big knowledge. We create shared, reliable knowledge bases from open and institutional sources, making high-quality data available to train algorithms that work for users, not against them.



# Poster & Team

Please take a look at our poster in the breaks.  
Credits to our team:

- **Slovak Music Centre:** Anna Žilková
- **SOZA:** Richard Demčák, Dr Marián Jankovič, Dominika Semaňáková
- **Wikipedian in Residence:** Matej Grochal, Asmah Frederico
- **Aloaded:** Stef Kragh (non-profit music distribution)
- **Reprex:** Mester, Anna Márta (information management), Nač Mihály (engineering.)
- Special thanks for the Ministry of Culture the Slovak National Library.

We apply our four-layered European Interoperability Framework to the creation of the **Slovak Comprehensive Music Database** in the Open Music Europe project (<https://www.openmuse.eu/> DOI 10.3030/101095295). This module is the first large-scale block of the Open Music Observatory.



Read more about the



Open Music Europe project

## The Open Music Observatory

The Slovak Comprehensive Music Database (SKCMBd) connects libraries, the Slovak Music Centre, SOZA, the Music Fund, and platforms through a shared metadata backbone built on open ontologies. It makes Slovak music more discoverable across streaming, archives, and education. As part of OpenMusE, it is a first large-scale module of a decentralised **European Music Observatory** integrated with European open science and data platforms. Developed by Reprex, it uses open-source AI to support even the smallest institutions.

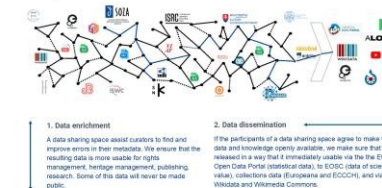
### Libraries as Portals to the Digital Life of Music

SKCMBd enables music libraries and national music centres to offer modern, interconnected discovery, loan, and access services. Using a semantic browser backed by a Wikibase and knowledge graph, libraries can expose their holdings—such as scores or CDs of Iris Szeghy—alongside streaming platforms, print retailers, and video archives. This helps educators, curators, and performers explore Slovak works more easily, even in countries where music libraries face resource constraints and low public visibility. Libraries become portals to the full digital life of music.



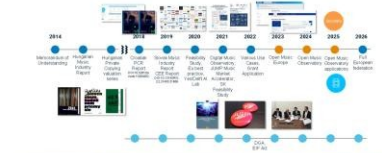
### Cooperation to Avoid Redundant Metadata Work

Low metadata depth, shallow archival coverage, and economic limits make traditional, siloed documentation unsustainable. Describing a collected work and its movements—then linking it to scores, recordings, and rights—should not be done in parallel by libraries, rights societies, labels, and platforms. SKCMBd offers a shared metadata backbone where stakeholders contribute once, and reuse across the ecosystem. Cooperation replaces redundancy with interoperability, saving effort and increasing visibility.



### Towards a Truly Inclusive European Music Observatory that works for music libraries and librarians

Music data is fragmented across public and private actors, competing rights groups, and legacy systems. Decades of centralisation efforts have failed. OpenMusE, funded by the European Commission, is building a decentralised European Music Observatory based on modern governance, interoperability, and trustworthy AI. SKCMBd and the Finno-Ugric Data Sharing Space are federated pilots that integrate music library metadata and services—and we invite IAML and its members to help shape an inclusive observatory that supports national libraries and small-town music collections alike.



Our presentation takes place in the 7 July session of **Music Libraries of Tomorrow: Reaching out to Wider Audiences** at the Mozarteum University E.001 HS Thomas Bernhard room (16:00–17:30) <https://reprex.nl/event/2025-07-07-lam2025/>

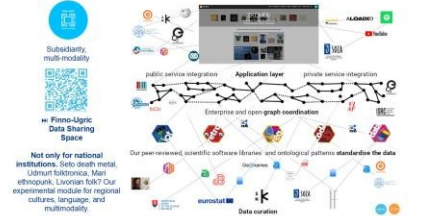
### Invisible Music in the Digital Ocean

Our feasibility study, funded by the Slovak Arts Council, found that valuable Slovak music is often invisible to both listeners and algorithms. Metadata gaps lead to works being omitted from recommendations or misattributed—undermining royalties and discoverability. With 55% of top artists reporting delayed or missing payments, the problem is systemic: underfunded libraries, low documentation by small music labels, and fragmented cataloguing. Music platforms cannot repair metadata when both public and private data are incomplete—and the entire ecosystem suffers.



### A Data Sharing Space with Shared Ontological Patterns

SKCMBd is a data sharing space where legal and organisational agreements enable semantic and technical interoperability. Built on shared ontological patterns, it aligns the descriptive needs of libraries, archives, rights organisations, and music services. Using a Wikibase, a Blazegraph SPARQL endpoint, and a Sampo-UI semantic browser, it allows stakeholders to co-ordinate metadata on works, recordings, and scores—ensuring that contributions made once can be reused across platforms and institutions.



### Reprex – Cooperative AI and Open Tools for Open Data

Reprex is a small company that emerged from the Yes!Delft AI+Blockchain incubator and delivers both private services in the music sector and public services through competitive Music Moves Europe and Horizon Europe grants. As members of the Dutch AI Coalition and the Big Data Value Association, we build cooperative, human-centred AI that librarians, archivists, and rights managers can trust. By integrating open source tools, we help even the smallest music institutions benefit from big data and data-driven innovation—together.



Want to join our Open Music Observatory initiative? Test our infrastructure? Any Questions? [reprex.nl/contact](mailto:reprex.nl/contact) Daniel Antal [www.linkedin.com/in/danielantal/](https://www.linkedin.com/in/danielantal/)

# **Thank you for your attention!**

**Check out our poster for a live demonstration on Tuesday**

**SKCMDb: [reprex.nl/project/skcmdb](https://reprex.nl/project/skcmdb)**

**Daniel Antal: [www.linkedin.com/in/antaldaniel](https://www.linkedin.com/in/antaldaniel)**

