WEBINAR

Open Data Maturity 2023: Best practices across Europe

data.europa academy

16 February 2024

10.00 — 11.30 CET

Rules of the game

The webinar will be recorded

For questions, please use the ClickMeeting chat.

Please reserve 3 min after the webinar to help us improve by filling in our feedback form

data.europa academy

Introduction

Flora Kopelou
data.europa.eu
Publications
Office of the EU

Martin Page PhD
ODM Study
Lead, Capgemini Invent

Sanja Arizanovic
Open data project
coordinator UNDP in
Serbia

Miroslav Líška
General State Advisor for
open data and
interoperability in Slovakia

Lukáš Jankovič
Open data expert on
impact, quality and
policy in Slovakia

Agenda

10.00 – 10.05	Opening and introduction – *Flora Kopelou*
10.05 – 10.20	The Open Data Maturity Assessment 2023 – *Martin Page*
10.20 – 10.40	Open data best practices from Serbia – *Sanja Arizanovic*
10.40 – 11.10	Open data best practices from Slovakia - *Miroslav Líška & Lukáš Jankovič*
11.10 – 11.25	Q&A session – *Martin Page*
11.25 – 11.30	Closing remarks – *Flora Kopelou*

The Open Data Maturity Assessment 2023

Martin Page

The Open Data Maturity assessment provides an annual snapshot of the state of open data in Europe

- **Background**
  - Annual **self-assessment questionnaire** about the efforts of countries in **making public data resources available and stimulating its reuse**
  - in 2023: 35 countries, including the EU-27, 3 EFTA countries (IS, NO, CH), and 5 candidate countries (BA, ME, AL, RS, UA)

- **Purpose**
  - evaluate the **maturity of countries** in the field of open data
  - **document progress** year-on-year
  - support the **development of open data best practices**

OPEN DATA MATURITY REPORT 2022
data.europa.eu
2023 Open Data Maturity Report
data.europa.eu
EUROPEAN
Data
017
Economy

Open data maturity in Europe is evaluated on four dimensions

Policy

- Policy framework
- Governance
- Implementation

Impact

- Strategic awareness
- Measuring reuse
- Created impact
  - Governmental
  - Social
  - Environmental
  - Economic

Portal

- Portal features
- Portal usage
- Data provision
- Sustainability

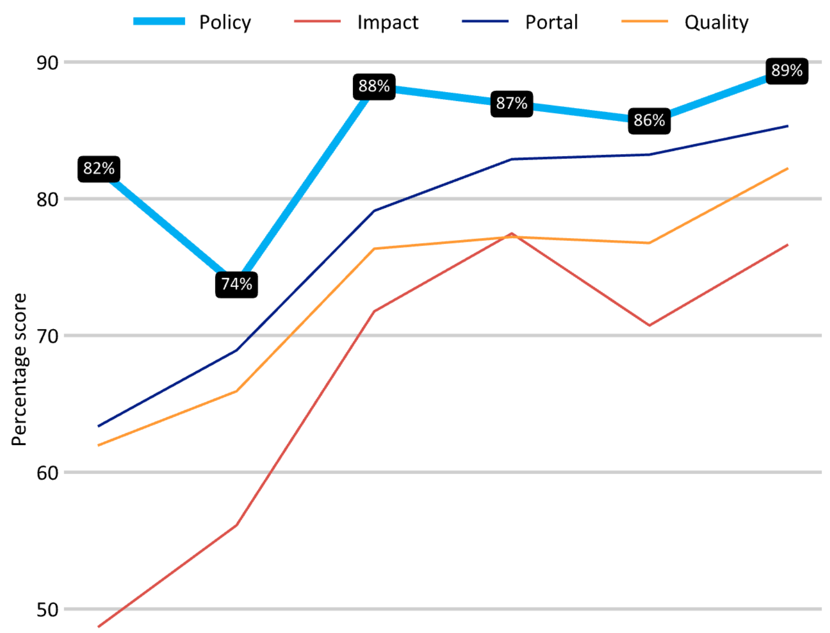
Quality

- Currency and completeness
- Monitoring and measures
- DCAT-AP compliance
- Deployment quality and linked data

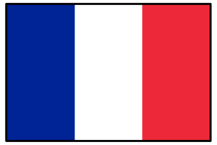
Policy remains the most mature dimension

Policy

EU-27 Average 2018 – 2023



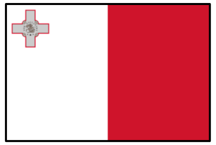
Top 3 EU countries


France

Estonia

Poland

Most improved countries


Malta
(+26%)

Luxembourg
(+25%)

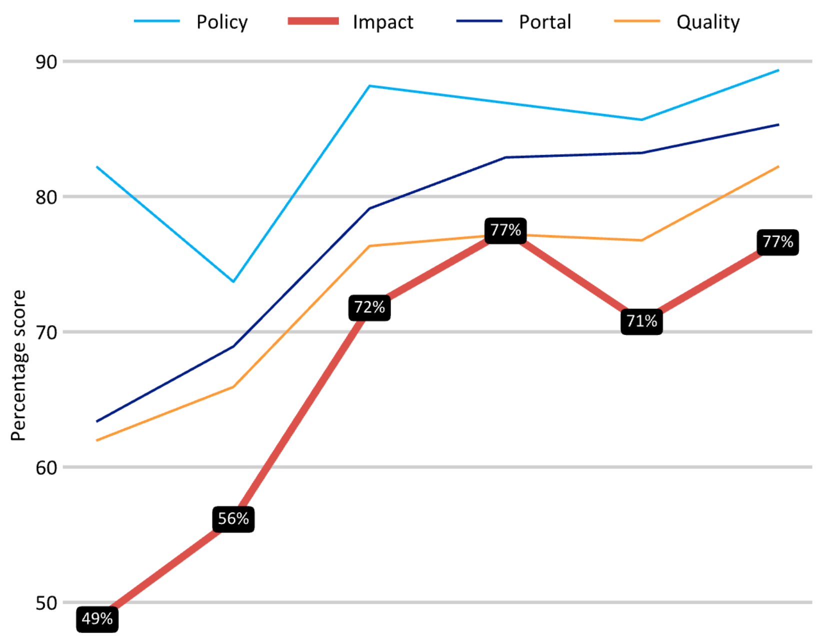
Montenegro
(+20%)

The governance and implementation of open data initiatives improved since 2022 to better support the policy framework

The impact dimension increased the most year-on-year but is still the least mature

Impact

EU-27 Average 2018 – 2023



Top 3 EU countries

Poland

Estonia

Czechia

Most improved countries

Slovakia
(+52%)

Iceland
(+35%)

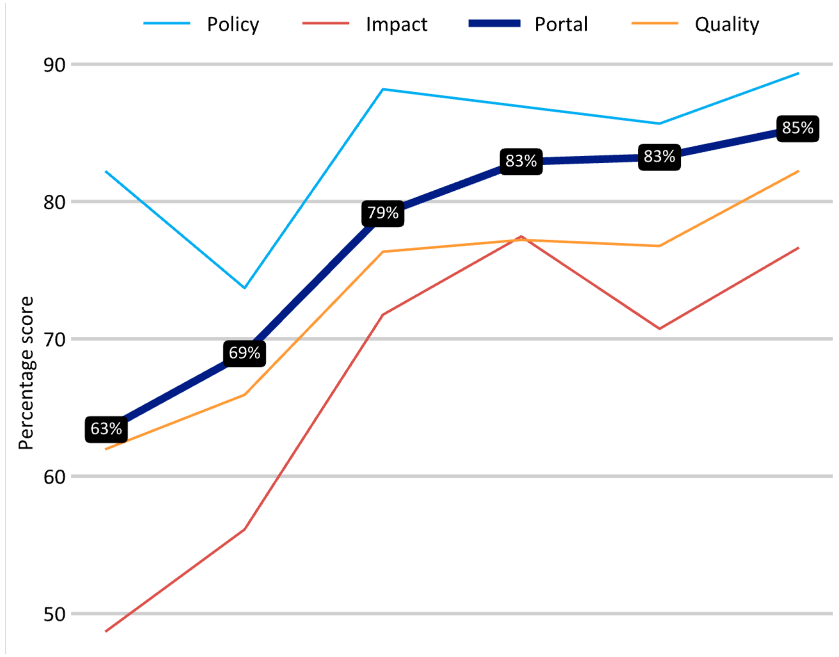
Latvia
(+34%)

There is greater monitoring and awareness of available reuse cases but collecting data on the impact created by open data is challenging

The portal dimension remains the second most mature but shows the least improvement

Portal

EU-27 Average 2018 – 2023



Top 3 EU countries

Poland

Estonia

Ireland

Most improved countries

Slovakia (+39%)

Latvia (+26%)

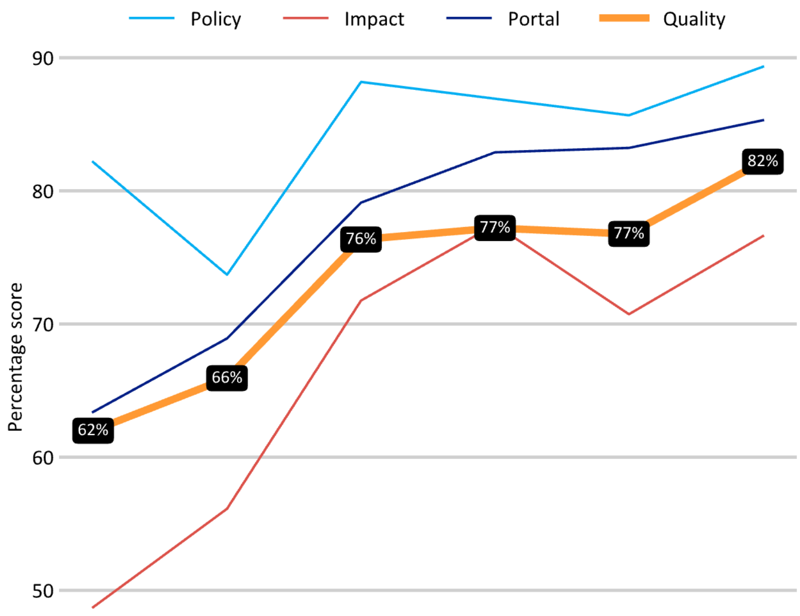
Serbia (+16%)

Montenegro (+16%)

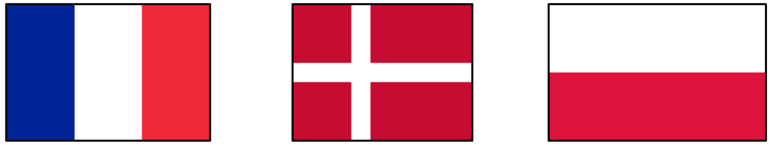
The provision of data by providers continues to improve, but portal features are not becoming more sophisticated

The quality dimension shows an accelerated improvement after three years of stagnant maturity

EU-27 Average 2018 – 2023



Top 3 EU countries



France

Denmark

Poland

Most improved countries

Slovakia
(+21%)

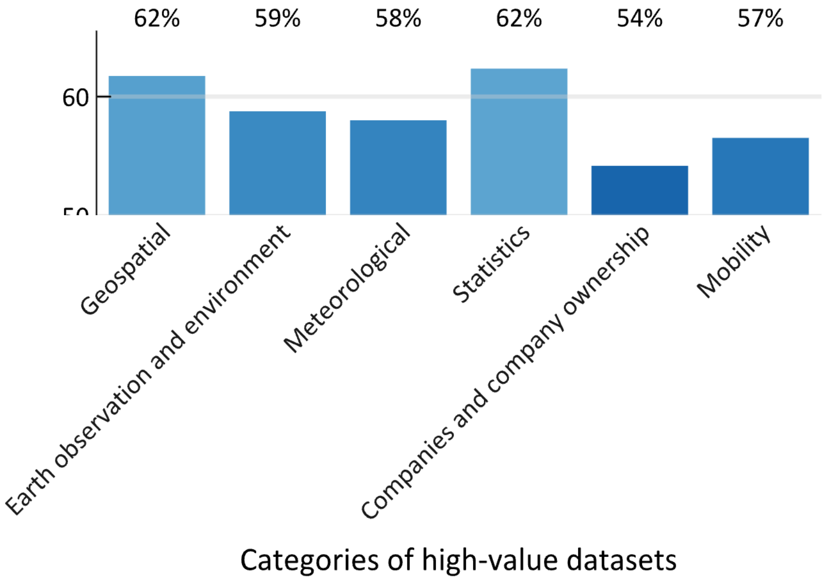
Latvia
(+21%)

Malta
(+19%)

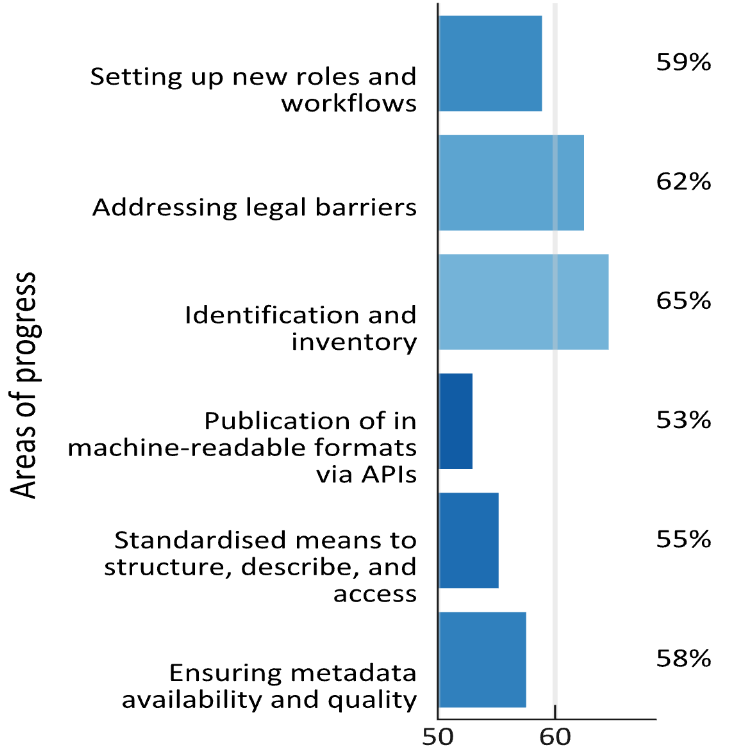
Countries are focused on metadata quality as the next frontier of open data maturity, building on the foundation of established data policies and portals that make open data more readily available

The requirement 'inventorying high-value datasets' and the categories of geospatial and statistics datasets are most advanced

Categories



Requirements



Top EU countries

Estonia

Finland

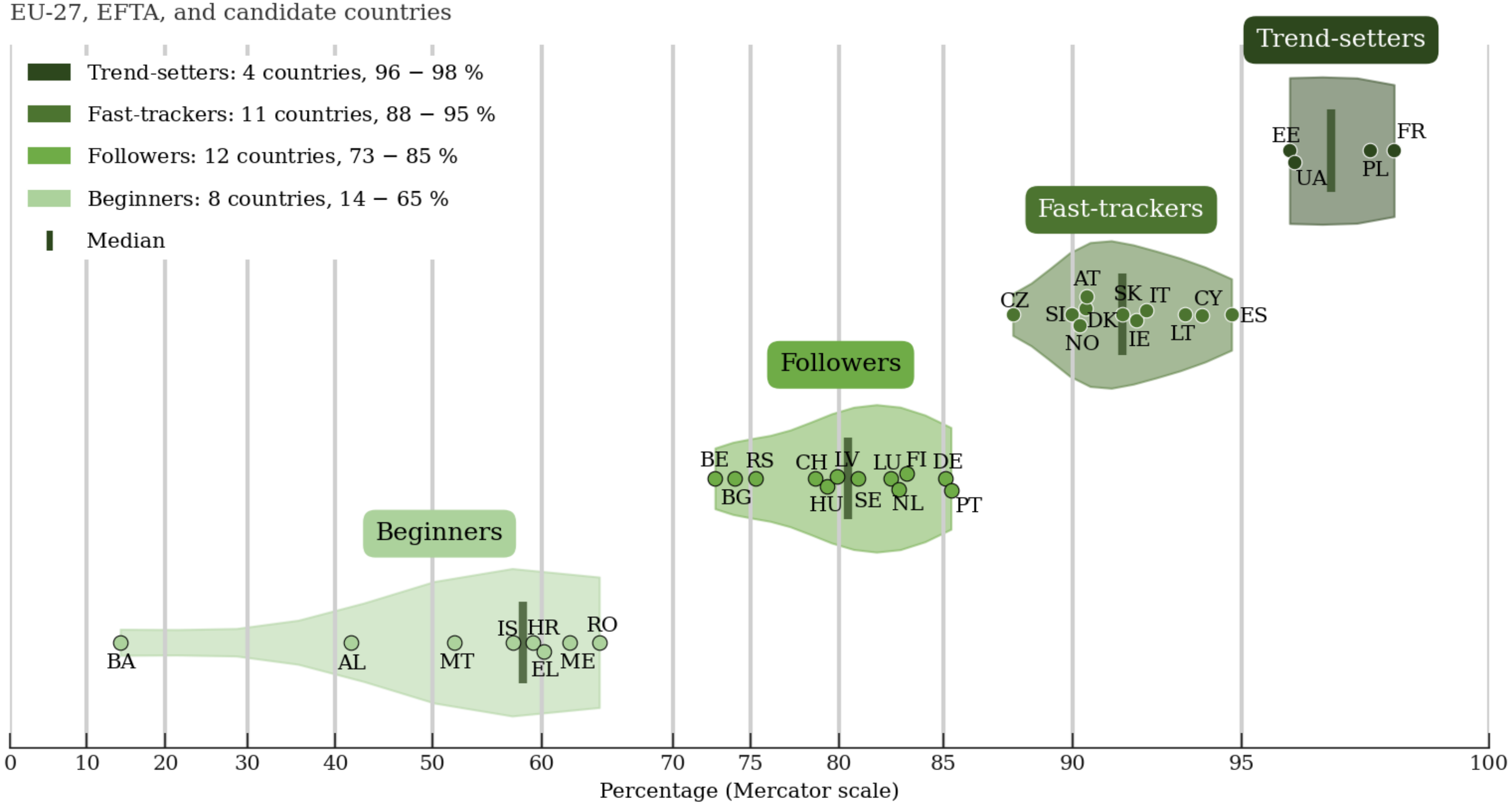
Denmark

Latvia

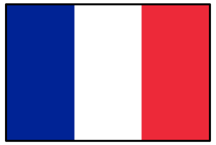
Countries in Europe continue to advance in their open data maturity

Clustering by Overall Maturity Score

EU-27, EFTA, and candidate countries



Top 3 countries



France

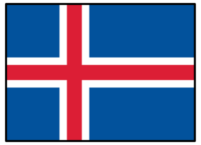
Poland

Ukraine

Most improved countries

Slovakia

Latvia



Iceland

Montenegro

Serbia

Upcoming ODM-related projects in 2024

REGULAR METHODOLOGY REVISION

REPORT REDESIGN PROJECT

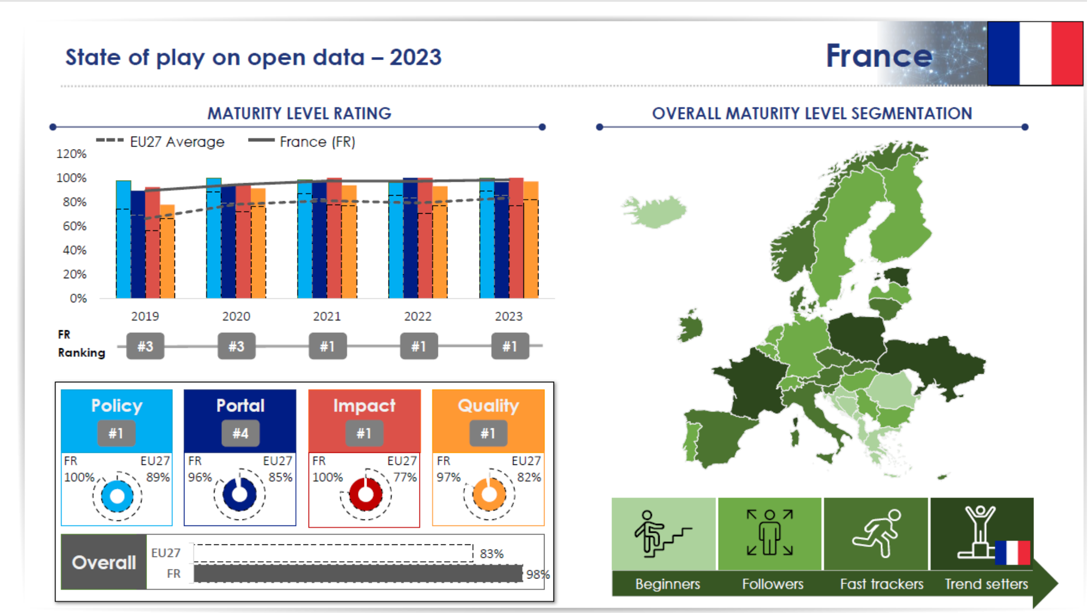
QUESTIONNAIRE REDESIGN

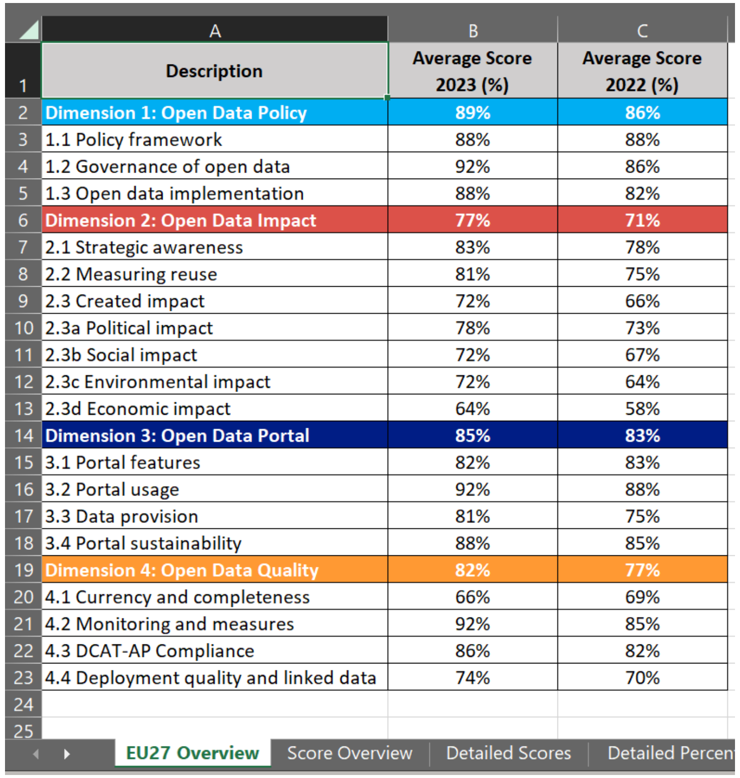
BEST PRACTICES REPORT AND WEBINAR

10TH ANNIVERSARY EDITION

Find the 2023 ODM report on data.europa.eu

data.europa.eu
2023 Open Data Maturity Report
data.europa.eu


State of play on open data – 2023
France
MATURITY LEVEL RATING
EU27 Average
France (FR)
120%
100%
80%
60%
40%
20%
0%
2019
2020
2021
2022
2023
FR Ranking
#3
#3
#1
#1
#1
Policy #1
FR 100%
EU27 89%
Portal #4
FR 96%
EU27 85%
Impact #1
FR 100%
EU27 77%
Quality #1
FR 97%
EU27 82%
Overall
EU27 83%
FR 98%
OVERALL MATURITY LEVEL SEGMENTATION
Beginners
Followers
Fast trackers
Trend setters



	A	B	C
1	Description	Average Score 2023 (%)	Average Score 2022 (%)
2	**Dimension 1: Open Data Policy**	**89%**	**86%**
3	1.1 Policy framework	88%	88%
4	1.2 Governance of open data	92%	86%
5	1.3 Open data implementation	88%	82%
6	**Dimension 2: Open Data Impact**	**77%**	**71%**
7	2.1 Strategic awareness	83%	78%
8	2.2 Measuring reuse	81%	75%
9	2.3 Created impact	72%	66%
10	2.3a Political impact	78%	73%
11	2.3b Social impact	72%	67%
12	2.3c Environmental impact	72%	64%
13	2.3d Economic impact	64%	58%
14	**Dimension 3: Open Data Portal**	**85%**	**83%**
15	3.1 Portal features	82%	83%
16	3.2 Portal usage	92%	88%
17	3.3 Data provision	81%	75%
18	3.4 Portal sustainability	88%	85%
19	**Dimension 4: Open Data Quality**	**82%**	**77%**
20	4.1 Currency and completeness	66%	69%
21	4.2 Monitoring and measures	92%	85%
22	4.3 DCAT-AP Compliance	86%	82%
23	4.4 Deployment quality and linked data	74%	70%
24			
25			

EU27 Overview
Score Overview
Detailed Scores
Detailed Percen

✉ info@data.europa.eu EU_opendata data.europa.eu data.europa.eu/newsletter

Open data best practices from Serbia

Sanja Arizanovic

еУПРАВА

КАНЦЕЛАРИЈА
ЗА ИТ И еУПРАВУ

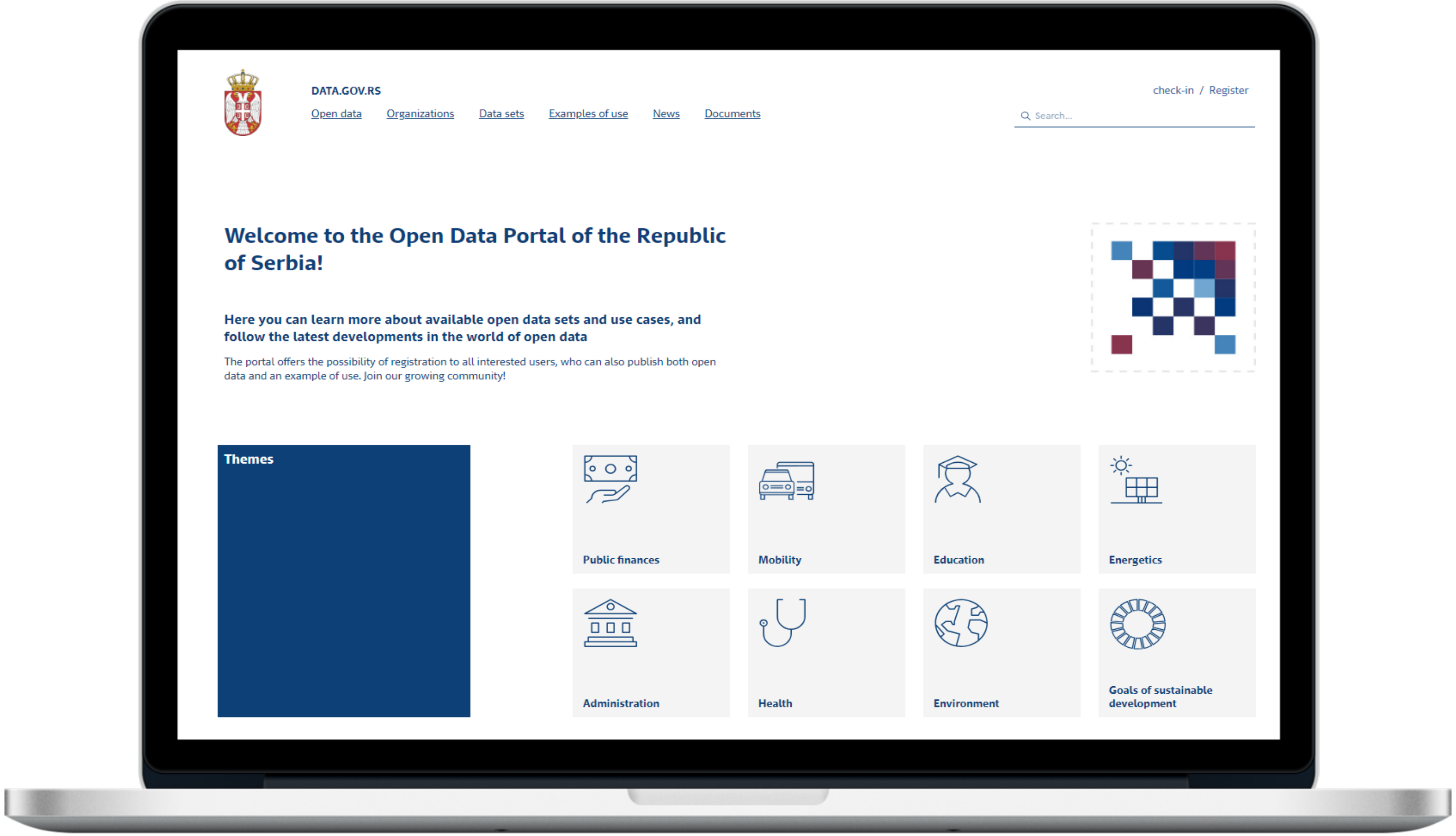
UNDP

Open Data Serbia

Background

Open Data initiative in Serbia

- ✓ Accelerating path of digitalization
- ✓ Started in 2015
- ✓ Open Data Community
- ✓ Data-driven decision making and innovative services
- ✓ A new awareness on the power of data brought by Covid19


DATA.GOV.RS
Open data
Organizations
Data sets
Examples of use
News
Documents
check-in / Register
Search...
Themes
Public finances
Mobility
Education
Energetics
Administration
Health
Environment
Goals of sustainable development

Welcome to the Open Data Portal of the Republic of Serbia!

Here you can learn more about available open data sets and use cases, and follow the latest developments in the world of open data

The portal offers the possibility of registration to all interested users, who can also publish both open data and an example of use. Join our growing community!

Open Data Community and reach out

co-creation & collaboration

Open Data Institute (int collaboration)

Promotion via BI

Open Data Week

Data Innovation Challenges

Open Data Hub

Media PR

Hackathons & Datathons

Meetups

Open Data Working Group

Citizens' science

National Academy for Public Administration

Open Data Working Group

65 members from public administration, NGO, media, tech community

Open Data Week

27 community co-organized events (hackatons, datathons, meetups, trainings, etc.) in 2019, 2022 and 2023

Citizen’s science

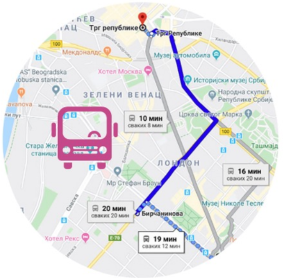
Air Quality (cooperation with tech community, NGO and Serbian Environmental Protection Agency)

_environment

Air Care/
Klimerko

Forest and
Climate

_mobility



Google
Transit

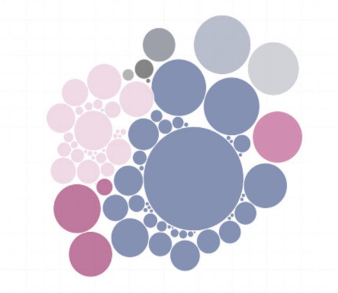
Safe Paths

_health

Diabetes
analysis

Mediately

_good governance



Open
Budgets

ODH
HOME
ABOUT US
WORK WITH US
COMMUNITY
NEWS
RESOURCES
CONTACT
Ć/L/EN
HUB

WORK WITH US

Expert Support

Education and Resources

Financial Support

Networking

eУПРАВА

КАНЦЕЛАРИЈА
ЗА ИТ И еУПРАВУ

UNDP

Thank you.

Open data best practices from Slovakia

Miroslav Líška & Lukáš Jankovič

Názov projektu: Zlepšenie využívania údajov vo verejnej správe

Kód projektu: 314011S979

ODM 2023 best practices across Europe

Slovakia

Portal & Quality

Miroslav Líška
(Slovakia)

miroslav.liska@mirri.gov.sk

Operačný program Efektívna verejná správa

Európska únia
Európsky sociálny fond

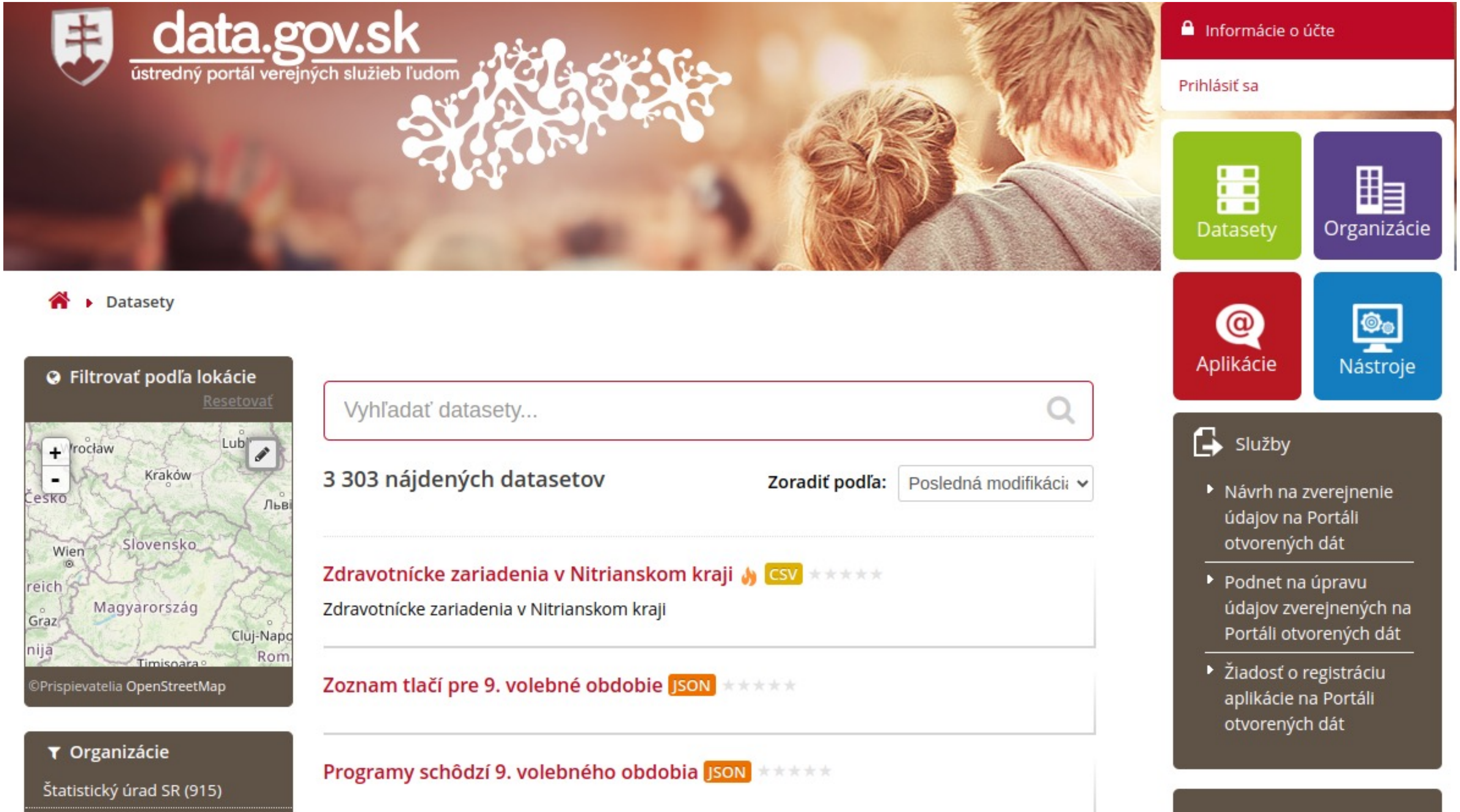
Dátová kancelária DATALAB

Tento projekt je podporený z Európskeho sociálneho fondu

Agenda

1. Former portal – CKAN based
2. A techstory: **From CKAN to DCAT with LinkedPipes based data.gov.cz**
3. DCAT-AP-SK-2.0.1
4. LinkedPipes ETL based Open Data Portal
5. data.slovensko.sk
6. SPARQL Endpoint
7. Local DCAT Catalogs Harvestation

1. Former solution – CKAN based data.gov.sk


data.gov.sk
ústredný portál verejných služieb ľudom
Informácie o účte
Prihlásiť sa
Datasety
Organizácie
Aplikácie
Nástroje
Datasety
Filtrovať podľa lokácie
Resetovať
Wrocław
Kraków
Lub
Česko
Львi
Wien
Slovensko
reich
Magyarország
Graz
Cluj-Napo
nija
Timișoara
Rom
©Prispievatelia OpenStreetMap
Organizácie
Vyhľadať datasety...
Zoradiť podľa:
Posledná modifikáci
CSV
JSON
JSON
Služby

Štatistický úrad SR (915)

3 303 nájdených datasetov

Zdravotnícke zariadenia v Nitrianskom kraji

Zdravotnícke zariadenia v Nitrianskom kraji

Zoznam tlačí pre 9. volebné obdobie

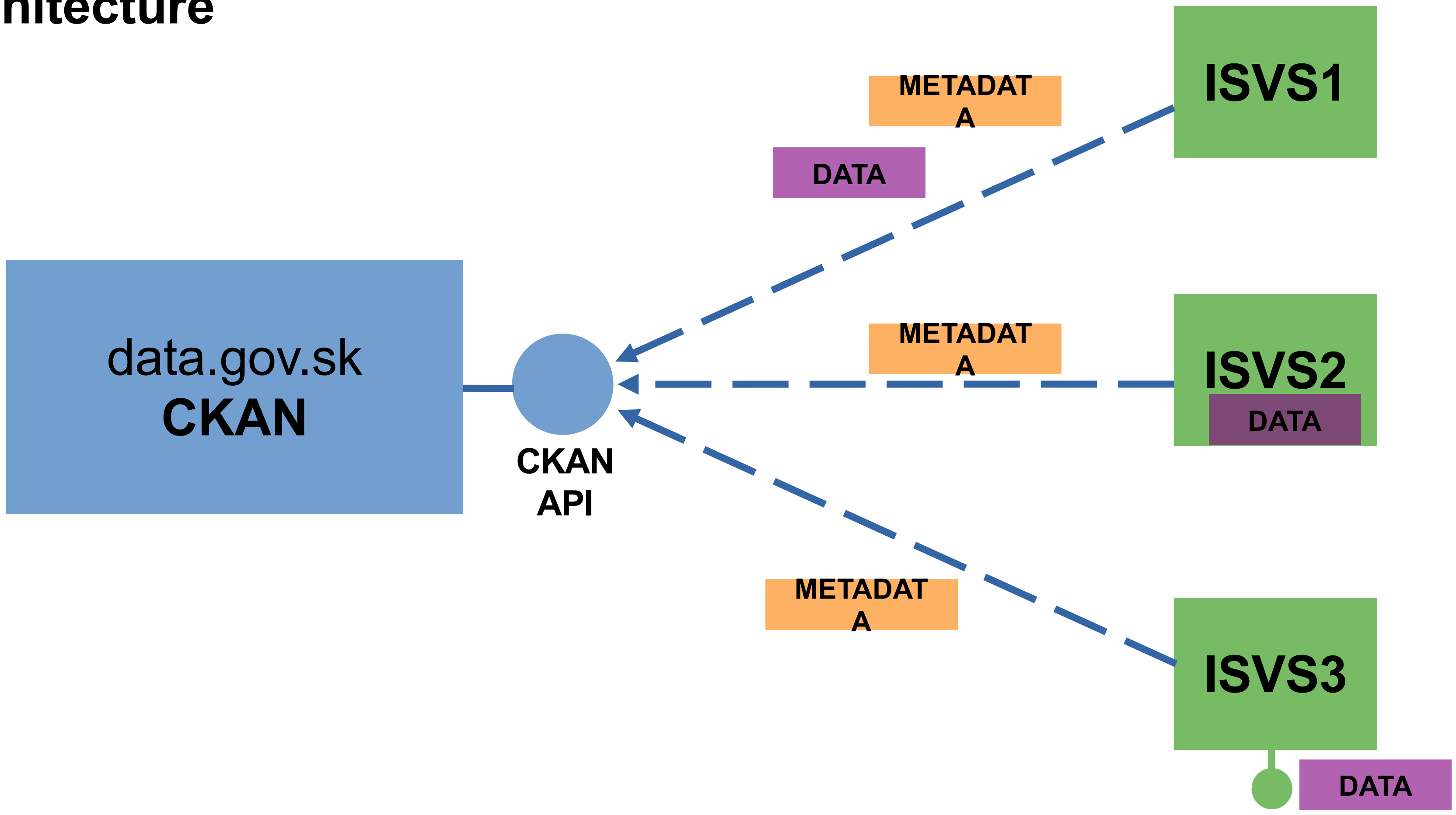
Programy schôdzí 9. volebného obdobia

- Návrh na zverejnenie údajov na Portáli otvorených dát
- Podnet na úpravu údajov zverejnených na Portáli otvorených dát
- Žiadosť o registráciu aplikácie na Portáli otvorených dát

2. From CKAN to DCAT with LinkedPipes 1/2

Dátová kancelária
DATALAB

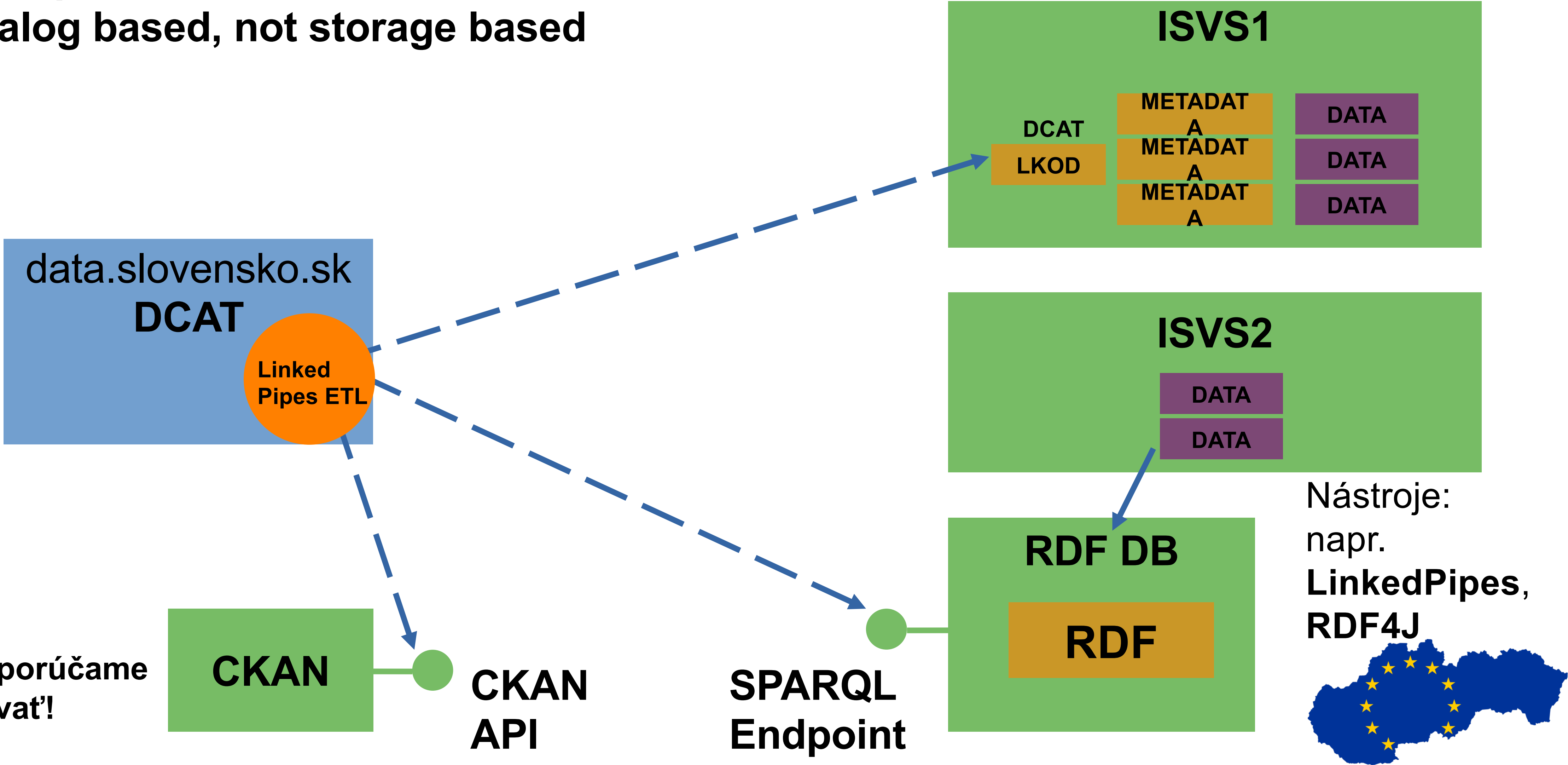
former opendata architecture


data.gov.sk
CKAN
CKAN API
METADATA
DATA
ISVS1
METADATA
ISVS2
DATA
METADATA
ISVS3
DATA

3. From CKAN to DCAT with LinkedPipes 2/2

Dátová kancelária
DATALAB

**new opendata architecture –
catalog based, not storage based**



ISVS1

DCAT

LKOD

METADATA

METADATA

METADATA

DATA

DATA

DATA

data.slovensko.sk
DCAT

Linked
Pipes ETL

ISVS2

DATA

DATA

RDF DB

RDF

Nástroje:
napr.
**LinkedPipes,
RDF4J**

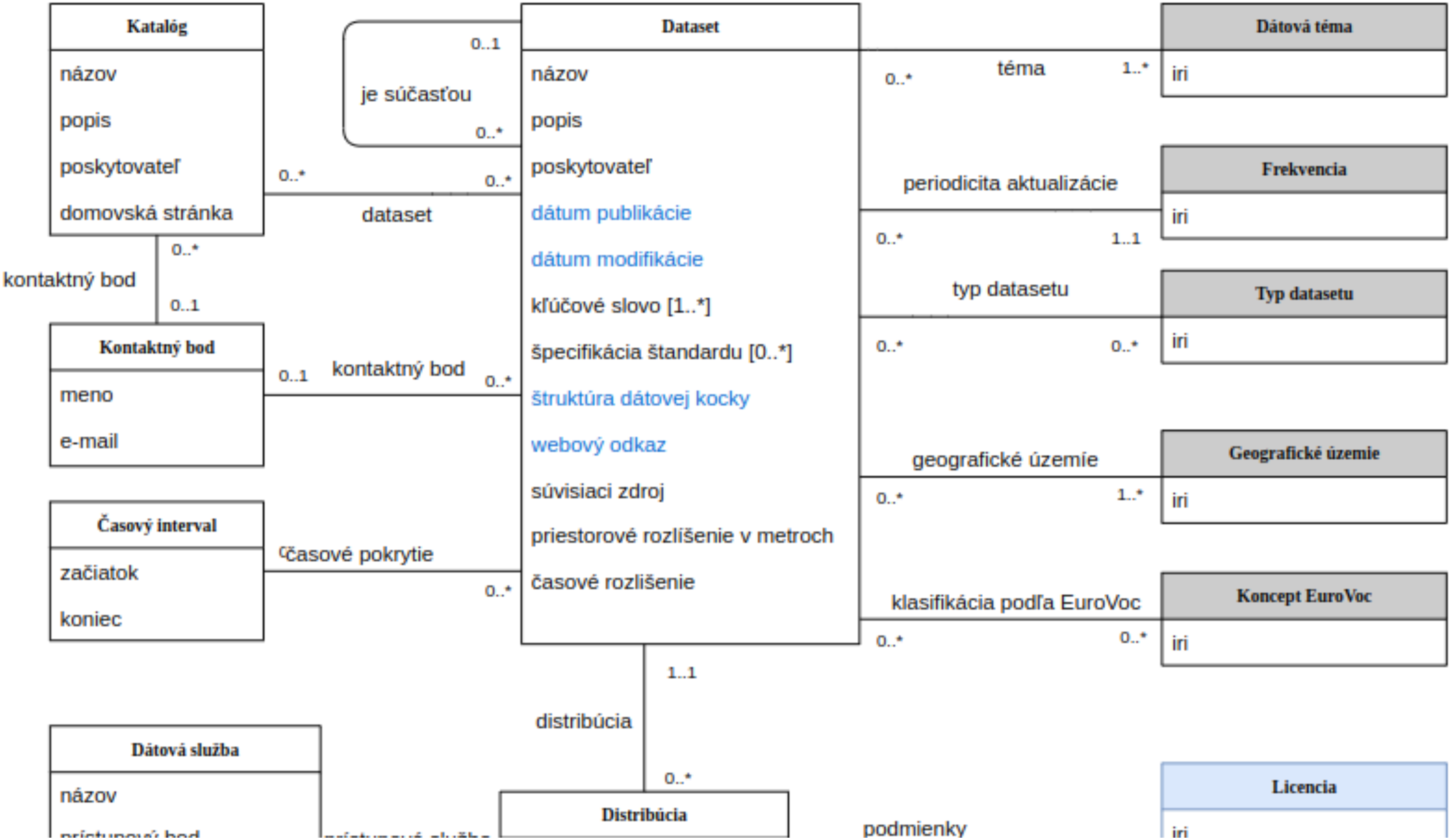
**Neodporúčame
budovať!**

CKAN

CKAN
API

SPARQL
Endpoint

3. DCAT-AP-SK-2.0.1 – Dataset



Katalóg
názov
popis
poskytovateľ
domovská stránka

Dataset
názov
popis
poskytovateľ
dátum publikácie
dátum modifikácie
kľúčové slovo [1..*]
špecifikácia štandardu [0..*]
štruktúra dátovej kocky
webový odkaz
súvisiaci zdroj
priestorové rozlíšenie v metroch
časové rozlíšenie

Kontaktný bod
meno
e-mail

Časový interval
začiatok
koniec

Dátová služba
názov

Distribúcia

Dátová téma
iri

Frekvencia
iri

Typ datasetu
iri

Geografické územie
iri

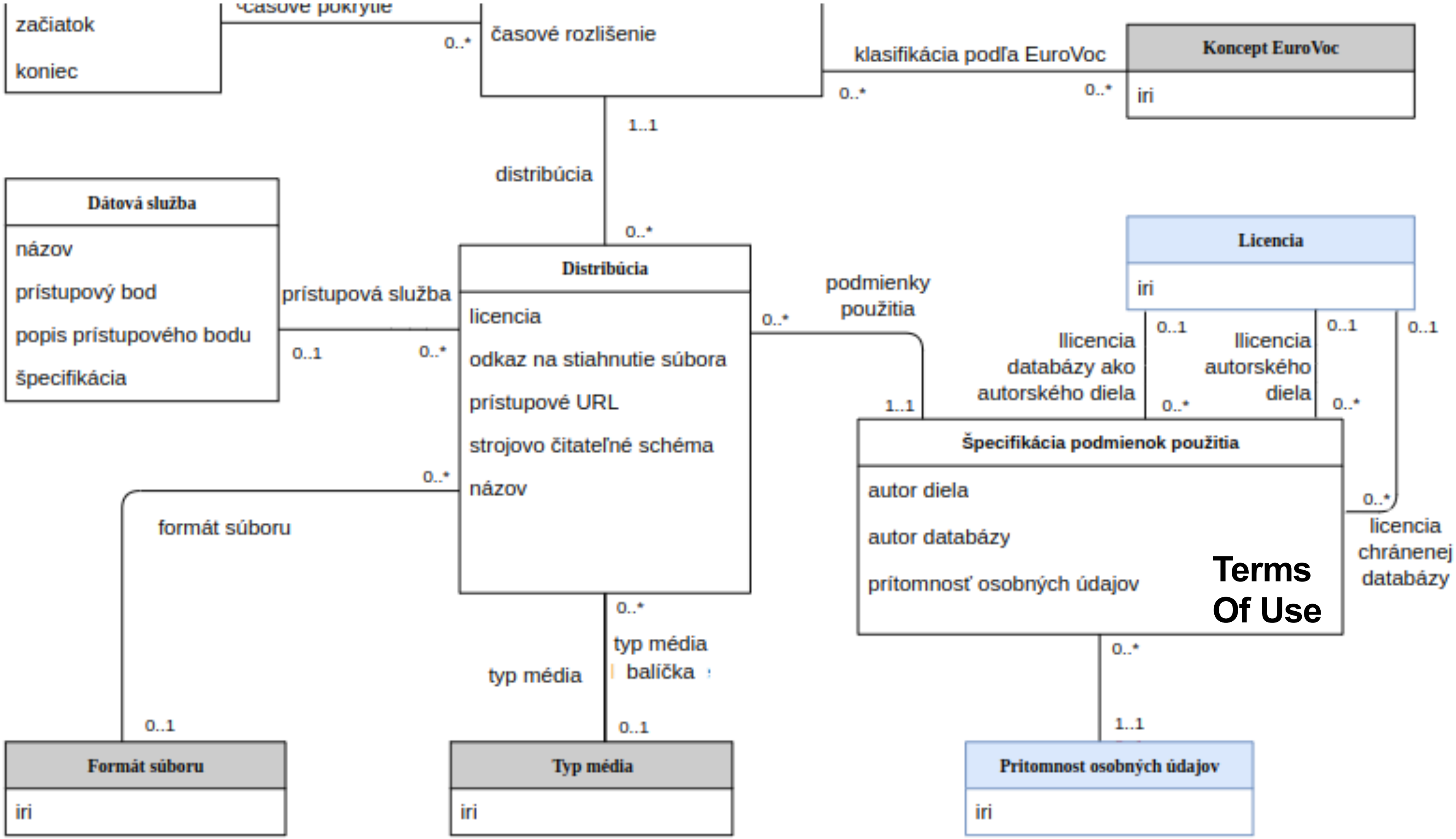
Koncept EuroVoc
iri

Licencia

je súčasťou
0..1
0..*
dataset
0..*
0..*
kontaktný bod
0..*
0..1
kontaktný bod
0..1
0..*
časové pokrytie
0..*
distribúcia
1..1
0..*
téma
0..*
1..*
periodicita aktualizácie
0..*
1..1
typ datasetu
0..*
0..*
geografické územie
0..*
1..*
klasifikácia podľa EuroVoc
0..*
0..*
podmienky

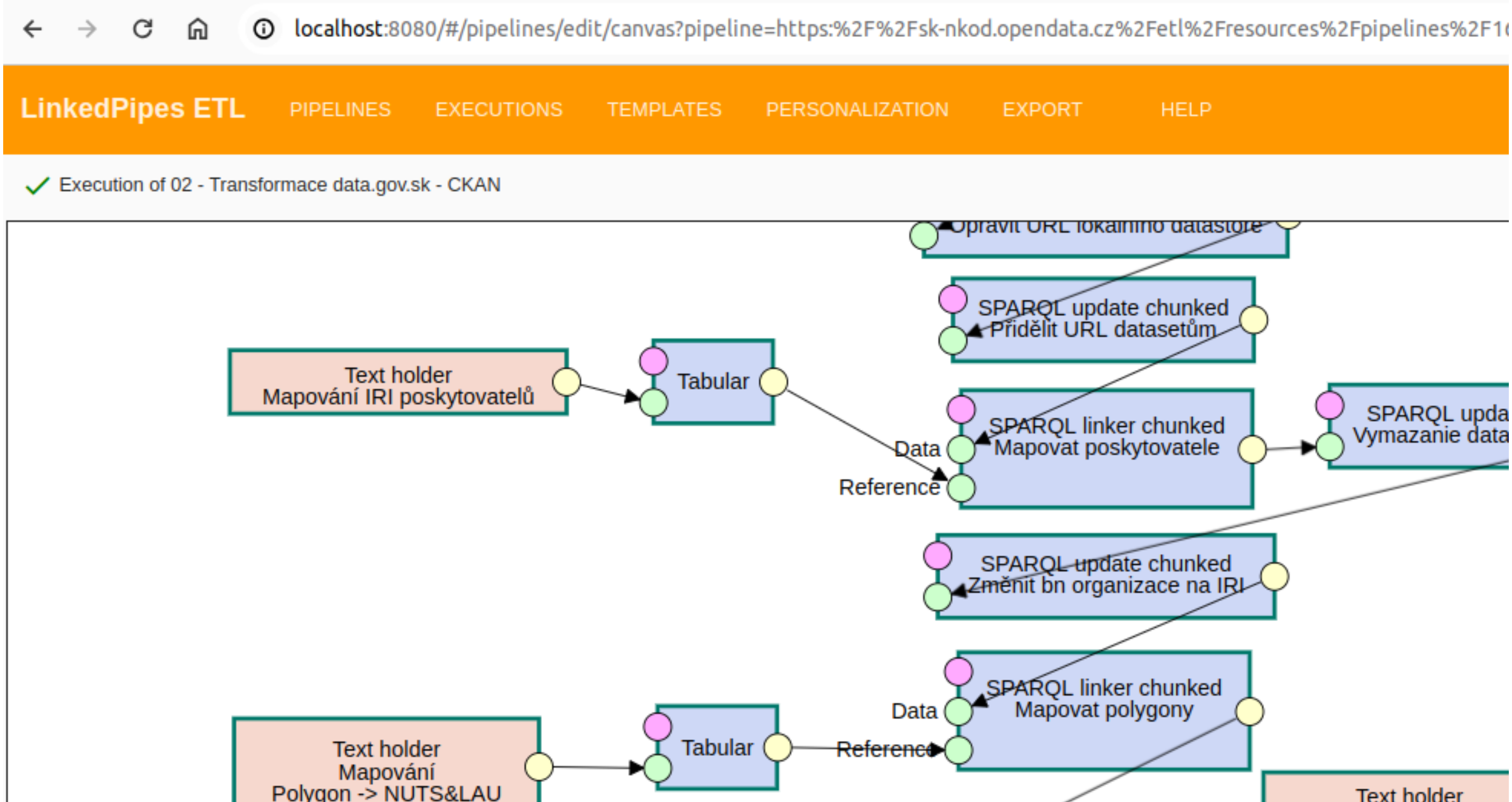
1/2

3. DCAT-AP-SK-2.0.1 – Distribution

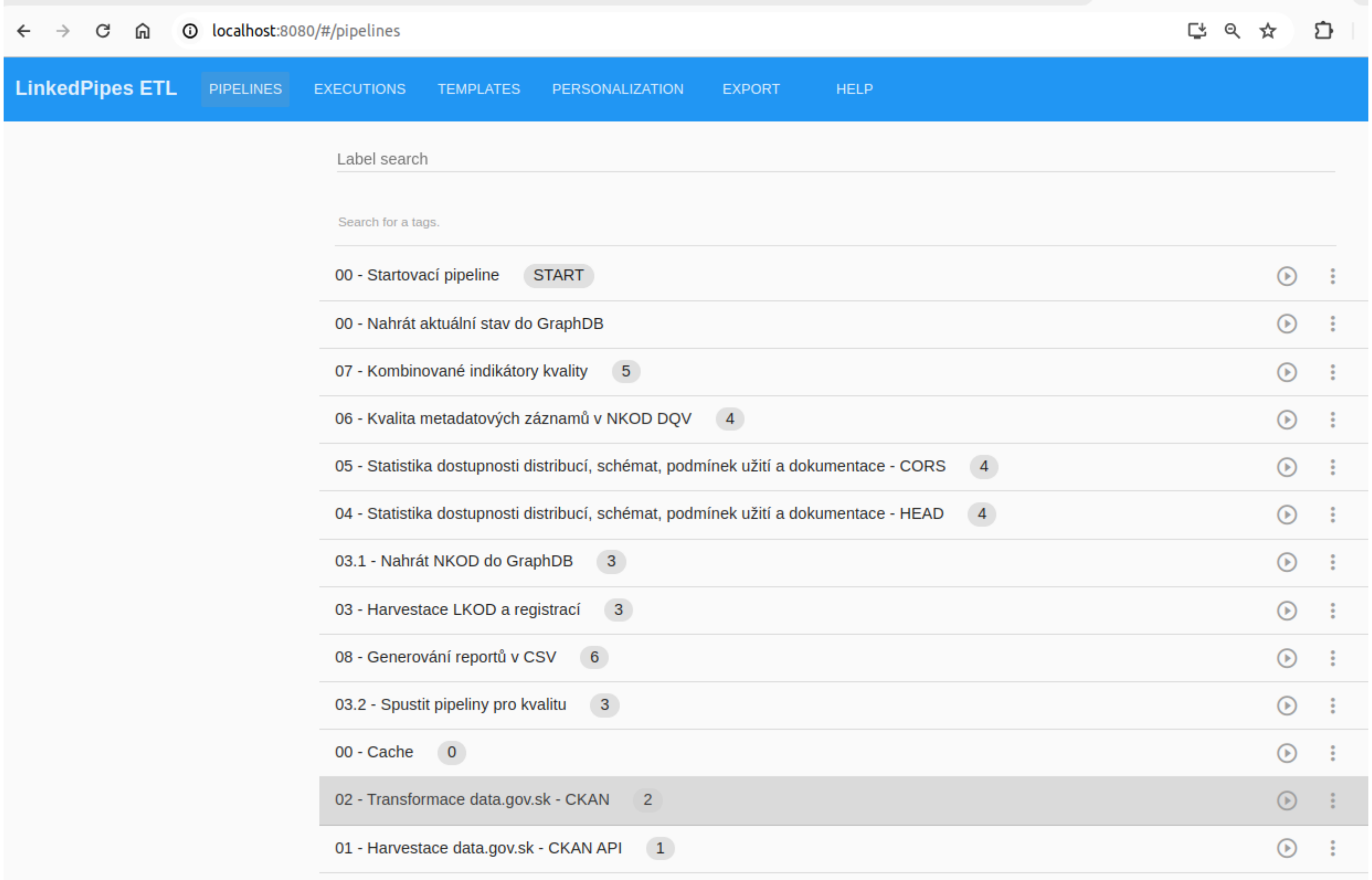

začiatok
koniec
časové pokrytie
0..*
časové rozlíšenie
klasifikácia podľa EuroVoc
0..*
0..*
Koncept EuroVoc
iri
1..1
distribúcia
0..*
Dátová služba
názov
prístupový bod
popis prístupového bodu
špecifikácia
prístupová služba
0..1
0..*
Distribúcia
licencia
odkaz na stiahnutie súbora
prístupové URL
strojovo čitateľné schéma
názov
0..*
podmienky použitia
1..1
Licencia
iri
0..1
0..1
0..1
llicencia databázy ako autorského diela
0..*
llicencia autorského diela
0..*
Špecifikácia podmienok použitia
autor diela
autor databázy
prítomnosť osobných údajov
0..*
licencia chránenej databázy
0..*
formát súboru
0..1
Formát súboru
iri
0..*
typ média
typ média balíčka
0..1
Typ média
iri
0..*
1..1
Pritomnost osobných údajov
iri

Terms Of Use

4. From CKAN to DCAT with LinkedPipes 1/2


localhost:8080/#/pipelines/edit/canvas?pipeline=https:%2F%2Fsk-nkod.opendata.cz%2Fetl%2Fresources%2Fpipelines%2F1
LinkedPipes ETL
PIPELINES
EXECUTIONS
TEMPLATES
PERSONALIZATION
EXPORT
HELP
Execution of 02 - Transformace data.gov.sk - CKAN
Opravit URL lokálního datastore
SPARQL update chunked
Přidělit URL datasetům
Text holder
Mapování IRI poskytovatelů
Tabular
SPARQL linker chunked
Mapovat poskytovatele
Data
Reference
SPARQL upda
Vymazanie data
SPARQL update chunked
Změnit bn organizace na IRI
SPARQL linker chunked
Mapovat polygony
Data
Reference
Text holder
Mapování
Polygon -> NUTS&LAU
Tabular
Text holder

4. From CKAN to DCAT with LinkedPipes 1/2


localhost:8080/#/pipelines
LinkedPipes ETL
PIPELINES
EXECUTIONS
TEMPLATES
PERSONALIZATION
EXPORT
HELP
Label search
Search for a tags.

00 - Startovací pipeline START

00 - Nahrát aktuální stav do GraphDB

07 - Kombinované indikátory kvality 5

06 - Kvalita metadatových záznamů v NKOD DQV 4

05 - Statistika dostupnosti distribucí, schémat, podmínek užití a dokumentace - CORS 4

04 - Statistika dostupnosti distribucí, schémat, podmínek užití a dokumentace - HEAD 4

03.1 - Nahrát NKOD do GraphDB 3

03 - Harvestace LKOD a registrací 3

08 - Generování reportů v CSV 6

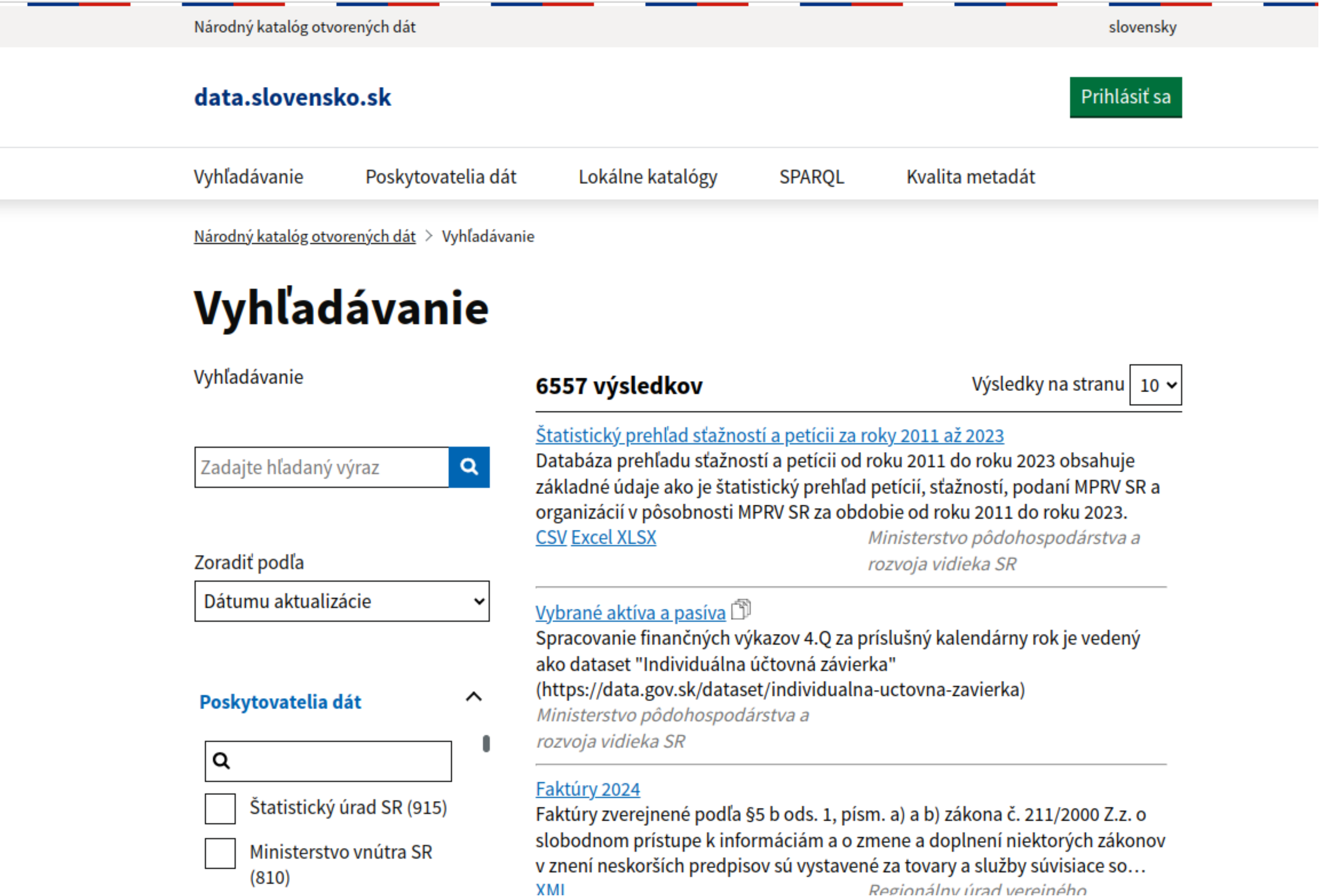
03.2 - Spustit pipeliny pro kvalitu 3

00 - Cache 0

02 - Transformace data.gov.sk - CKAN 2

01 - Harvestace data.gov.sk - CKAN API 1

5. data.slovensko.sk


Národný katalóg otvorených dát
slovensky
data.slovensko.sk
Prihlásiť sa
Vyhľadávanie
Poskytovatelia dát
Lokálne katalógy
SPARQL
Kvalita metadát
Národný katalóg otvorených dát > Vyhľadávanie

Vyhľadávanie

Vyhľadávanie

Zadajte hľadaný výraz

Zoradiť podľa: Dátumu aktualizácie

Poskytovatelia dát

☐ Štatistický úrad SR (915)

☐ Ministerstvo vnútra SR (810)

6557 výsledkov

Výsledky na stranu: 10

Štatistický prehľad sťažností a petícii za roky 2011 až 2023

Databáza prehľadu sťažností a petícii od roku 2011 do roku 2023 obsahuje základné údaje ako je štatistický prehľad petícií, sťažností, podaní MPRV SR a organizácií v pôsobnosti MPRV SR za obdobie od roku 2011 do roku 2023.

CSV Excel XLSX *Ministerstvo pôdohospodárstva a rozvoja vidieka SR*

Vybrané aktíva a pasíva

Spracovanie finančných výkazov 4.Q za príslušný kalendárny rok je vedený ako dataset "Individuálna účtovná závierka" (https://data.gov.sk/dataset/individualna-uctovna-zavierka)

Ministerstvo pôdohospodárstva a rozvoja vidieka SR

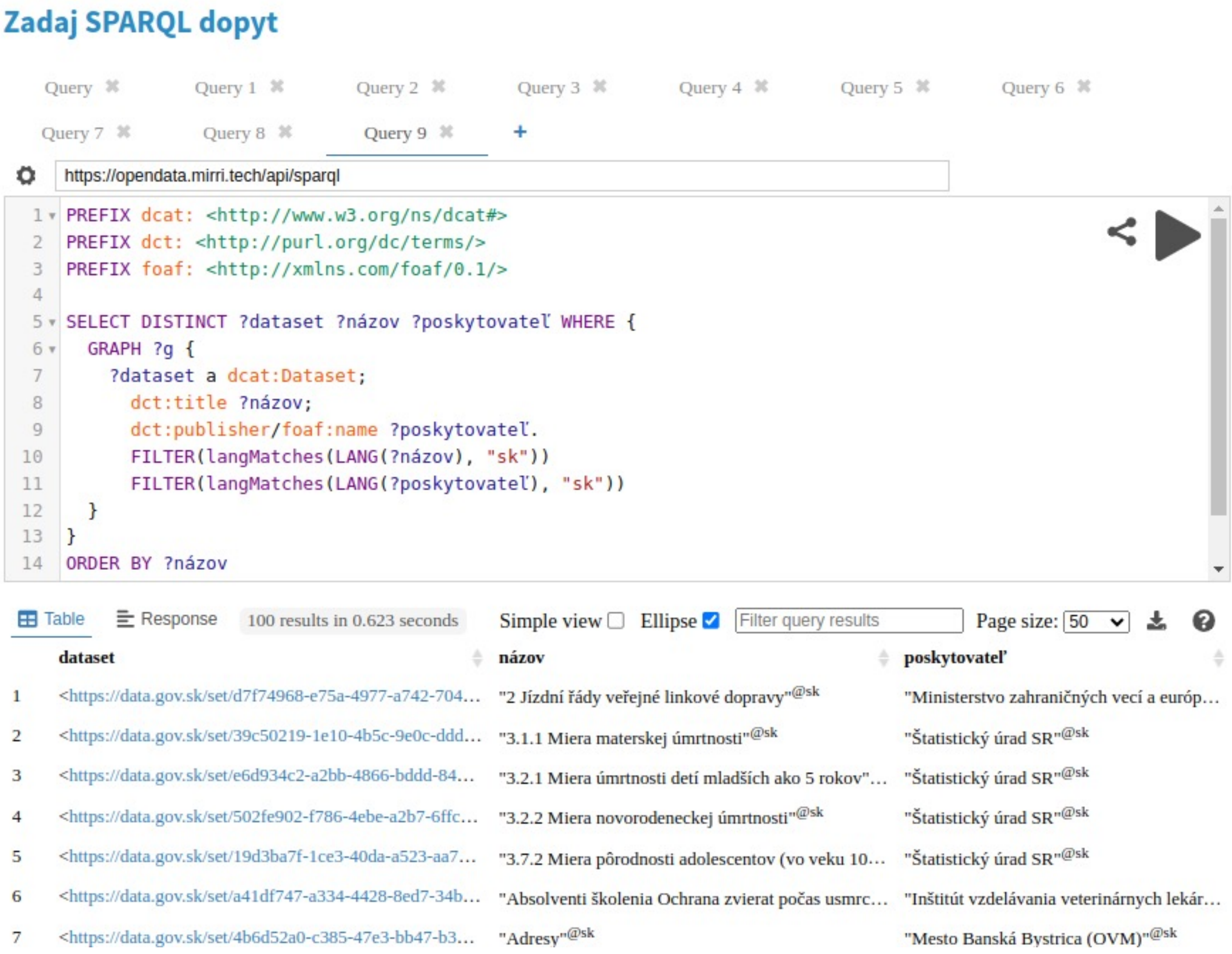
Faktúry 2024

Faktúry zverejnené podľa §5 b ods. 1, písm. a) a b) zákona č. 211/2000 Z.z. o slobodnom prístupe k informáciám a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sú vystavené za tovary a služby súvisiace so…

XML *Regionálny úrad verejného*

6. data.slovensko.sk/sparql

Dátová kancelária
DATALAB



Zadaj SPARQL dopyt

https://opendata.mirri.tech/api/sparql

```
PREFIX dcat: <http://www.w3.org/ns/dcat#>
PREFIX dct: <http://purl.org/dc/terms/>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>

SELECT DISTINCT ?dataset ?názov ?poskytovateľ WHERE {
  GRAPH ?g {
    ?dataset a dcat:Dataset;
      dct:title ?názov;
      dct:publisher/foaf:name ?poskytovateľ.
      FILTER(langMatches(LANG(?názov), "sk"))
      FILTER(langMatches(LANG(?poskytovateľ), "sk"))
  }
}
ORDER BY ?názov
```

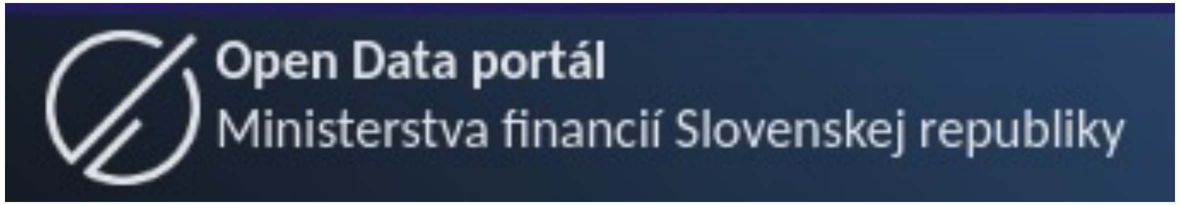
100 results in 0.623 seconds

Simple view ☐ Ellipse ☑ Filter query results Page size: 50

	dataset	názov	poskytovateľ
1	<https://data.gov.sk/set/d7f74968-e75a-4977-a742-704…	"2 Jízdní řády veřejné linkové dopravy"@sk	"Ministerstvo zahraničných vecí a európ…
2	<https://data.gov.sk/set/39c50219-1e10-4b5c-9e0c-ddd…	"3.1.1 Miera materskej úmrtnosti"@sk	"Štatistický úrad SR"@sk
3	<https://data.gov.sk/set/e6d934c2-a2bb-4866-bddd-84…	"3.2.1 Miera úmrtnosti detí mladších ako 5 rokov"…	"Štatistický úrad SR"@sk
4	<https://data.gov.sk/set/502fe902-f786-4ebe-a2b7-6ffc…	"3.2.2 Miera novorodeneckej úmrtnosti"@sk	"Štatistický úrad SR"@sk
5	<https://data.gov.sk/set/19d3ba7f-1ce3-40da-a523-aa7…	"3.7.2 Miera pôrodnosti adolescentov (vo veku 10…	"Štatistický úrad SR"@sk
6	<https://data.gov.sk/set/a41df747-a334-4428-8ed7-34b…	"Absolventi školenia Ochrana zvierat počas usmrc…	"Inštitút vzdelávania veterinárnych lekár…
7	<https://data.gov.sk/set/4b6d52a0-c385-47e3-bb47-b3…	"Adresy"@sk	"Mesto Banská Bystrica (OVM)"@sk

7. Local DCAT-AP-SK2.0.1 implementations:

Dátová kancelária
DATALAB



Open Data portál
Ministerstva financií Slovenskej republiky

opendata.mzv.sk

MINISTERSTVO
ZAHRANIČNÝCH VECÍ
A EURÓPSKYCH ZÁLEŽITOSTÍ
SLOVENSKEJ REPUBLIKY

Liptovský
Mikuláš

NÁRODNÉ
OSVETOVÉ
CENTRUM

Zvolen

Levice

Trnava

MINISTERSTVO
INVESTÍCIÍ, REGIONÁLNEHO ROZVOJA
A INFORMATIZÁCIE
SLOVENSKEJ REPUBLIKY

8. Best practices

- Learn from masters (Czech Republic)
- Reuse open source code(data.gov.cz, LinkedPipesETL)
- Share code during development (EUPL)
- Focus on catalogizing metadata, not storing data
- Be interoperable with EU and national agencies (DCAT)

Thank you for your attention.

miroslav.liska@mirri.gov.sk

Názov projektu: Zlepšenie využívania údajov vo verejnej správe
Kód projektu: 314011S979

ODM 2023 best practices across Europe - Impact

Lukáš Jankovič
(Slovakia)

lukas.jankovic@mirri.gov.sk

Operačný program
Efektívna verejná správa

Európska únia
Európsky sociálny fond

Dátová kancelária
DATALAB

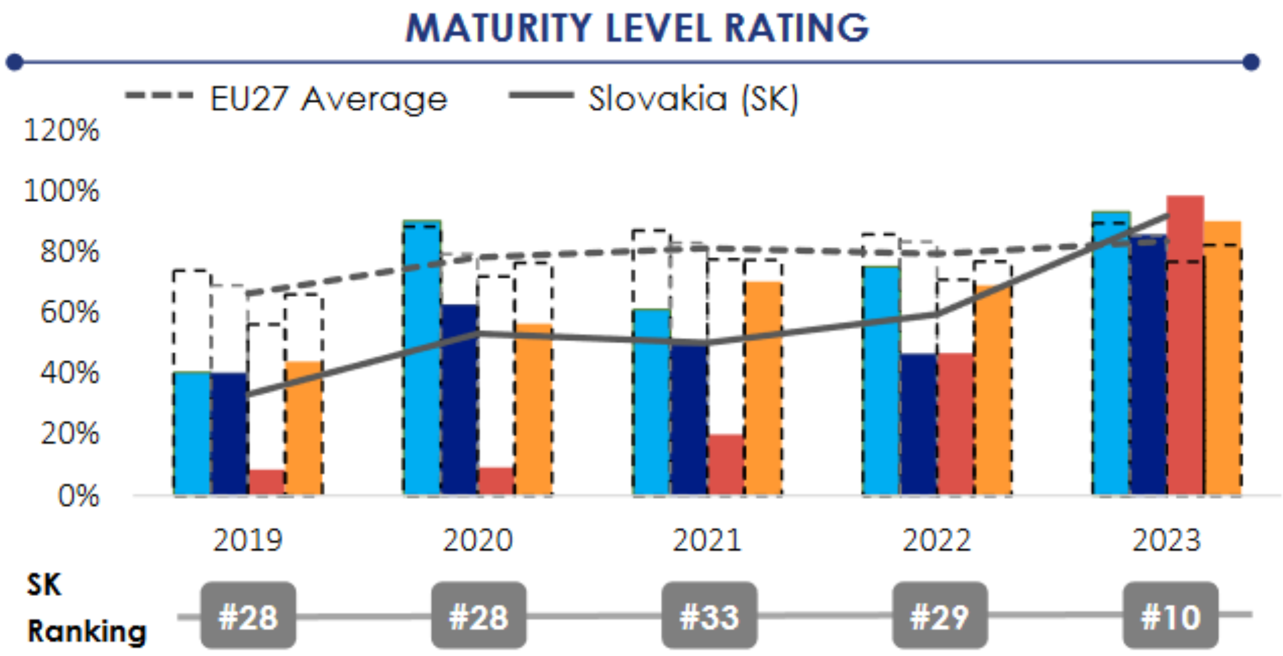
Tento projekt je podporený z Európskeho sociálneho fondu

1. Outline

- Key activities
- Impact activities
- Impact methodology
    - Structure
    - What will we measure?
    - Data sources
- Impact creators
- Best practices

2. Key activities

- Action plan to improve Slovakia‘s ranking in ODMI (2022)
- Open Government Partnership Action plan 2022-2024 – Impact
- Analysis on publication and usage of National Open Data portal (2017-)
- Building a new portal (2021-2024)
- Trainings



Start of activities

Most of the scheduled activities are completed (portal in progress)

3. Impact activities

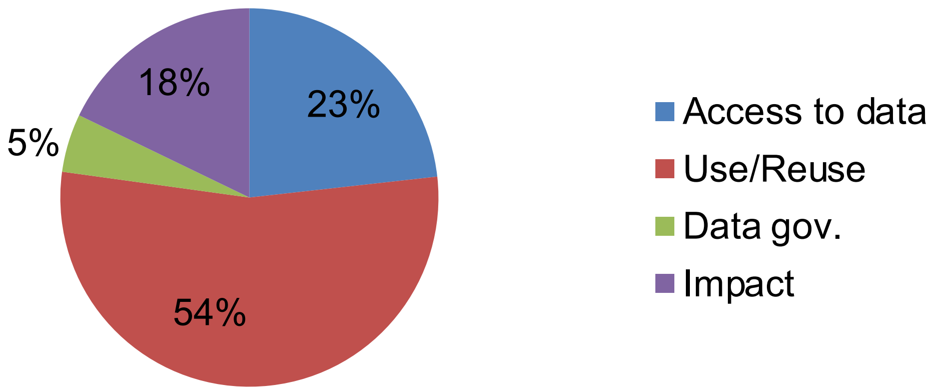
- We started with creating methodology on open data impact
- Based on Czech methodology, analysis and papers of EDP, ODMI
- Workshops with stakeholders and guests – Dec 2022 – June 2023
- Methodology will be base for (annual) report on Open Data Impact (1Q 2024)

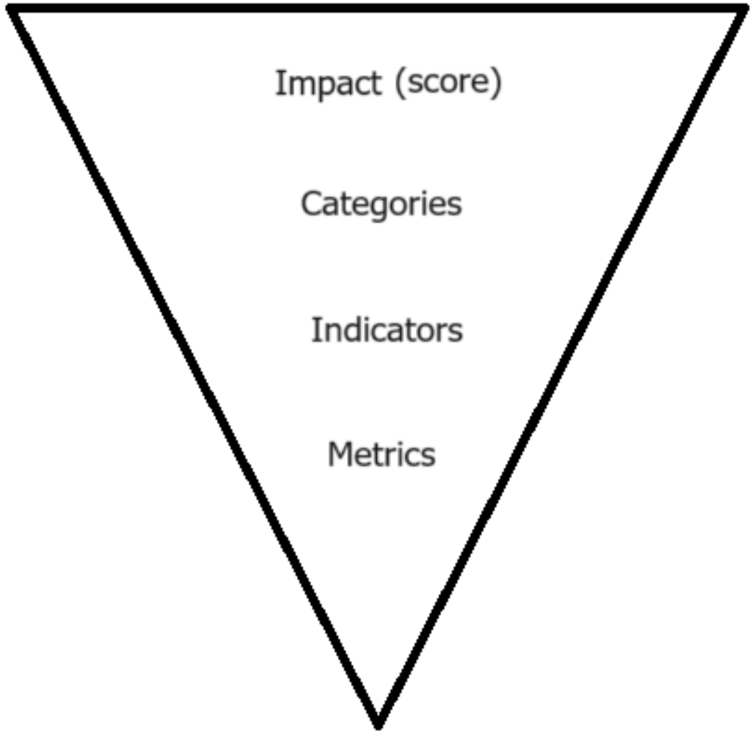
Image source: https://www.crnova.com/big-data-impacto-en-la-sociedad

4. Impact methodology - structure

- As simple as possible
- Transparency
- Focus on access to data, use/reuse, impact
- HVD included
- Focus on government level (not municipal)
- **29** indicators, **5** categories, **446** points

Weight of categories (max. points)





Impact (score)
Categories
Indicators
Metrics

Structure

5. Impact methodology – what will we measure? (examples)

Dátová kancelária
DATALAB

- **Access to data** – number of portal users, user satisfaction with portal and data quality, number of downloads (also HVD)
- **Use/Reuse** – level of reuse, communication between publishers and users, trainings, hackathons, workshops, requests for datasets satisfaction rate, use cases, publication of most requested datasets rate, use of open data in dissertation/thesis, use of HVD datasets
- **Data governance** – publication plan, publication minimum (set of recommended datasets)
- **Impact** – studies of impact, **annual report**, research of impact (via interviews)

We believe impact cannot be represented in numbers and metrics only, therefore methodology is only useful tool, not goal.

6. Impact methodology – data sources

1. Portal analytics (Google Analytics, ...)
2. Questionnaire for portal users
3. Questionnaire for data stewards
4. Open Data National Portal
5. Methodology portal
6. Local portals a local data stewards
7. Central database of dissertation/thesis
8. Most requested datasets and API
9. Use cases database
10. Questionnaire for open data reusers with impact potential (NGO, schools, companies)
11. Report on open data impact
12. Analytical studies of open data impact

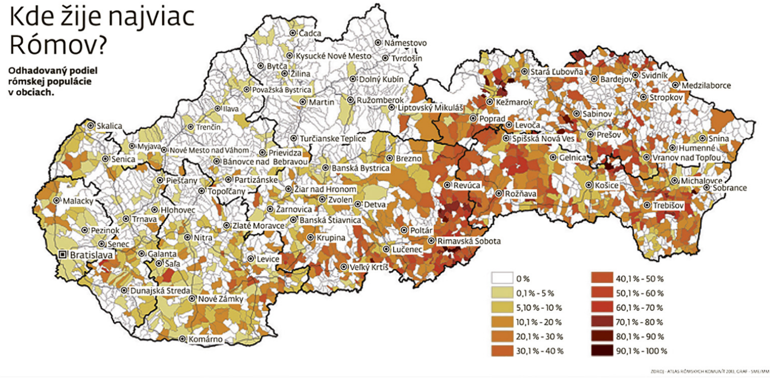
7. Impact creators

Area	Impact
Economic	✓
Social	✓
Political	✓
Environmental	✓

Public transport app

Public procurement
search & visualization

Open wood


Kde žije najviac Rómov?
Odhadovaný podiel rómskej populácie v obciach.
Čadca
Námestovo
Tvrdošín
Kysucké Nové Mesto
Bytča
Žilina
Dolný Kubín
Považská Bystrica
Martin
Ružomberok
Liptovský Mikuláš
Stará Ľubovňa
Bardejov
Svidník
Medzilaborce
Stropkov
Kežmarok
Poprad
Sabinov
Levoča
Spišská Nová Ves
Prešov
Snina
Humenné
Vranov nad Topľou
Gelnica
Košice
Michalovce
Sobrance
Trebišov
Rožňava
Revúca
Rimavská Sobota
Ilava
Trenčín
Skalica
Senica
Myjava
Nové Mesto nad Váhom
Prievidza
Bánovce nad Bebravou
Turčianske Teplice
Brezno
Banská Bystrica
Piešťany
Partizánske
Topoľčany
Žiar nad Hronom
Zvolen
Detva
Malacky
Hlohovec
Trnava
Žarnovica
Banská Štiavnica
Poltár
Pezinok
Zlaté Moravce
Krupina
Lučenec
Senec
Nitra
Bratislava
Galanta
Šaľa
Levice
Veľký Krtíš
Dunajská Streda
Nové Zámky
Komárno
0 %
0,1 % - 5 %
5,10 % - 10 %
10,1 % - 20 %
20,1 % - 30 %
30,1 % - 40 %
40,1 % - 50 %
50,1 % - 60 %
60,1 % - 70 %
70,1 % - 80 %
80,1 % - 90 %
90,1 % - 100 %
ZDROJ - ATLAS RÓMSKYCH KOMUNÍT 2013, GRAF - SME/MM

Atlas of Roma communities

8. Best practices

- Learning from other countries answers (especially similar countries)
- Trainings for data stewards
- Communication (methodology portal, working group sessions)
- Creating common commitments and activities across government and with NGOs (OGP, Alvaria, Slovensko.Digital)
- Open data impact methodology

Dátová kancelária
DATALAB

Thank you for your attention.
lukas.jankovic@mirri.gov.sk

Questions & Answers

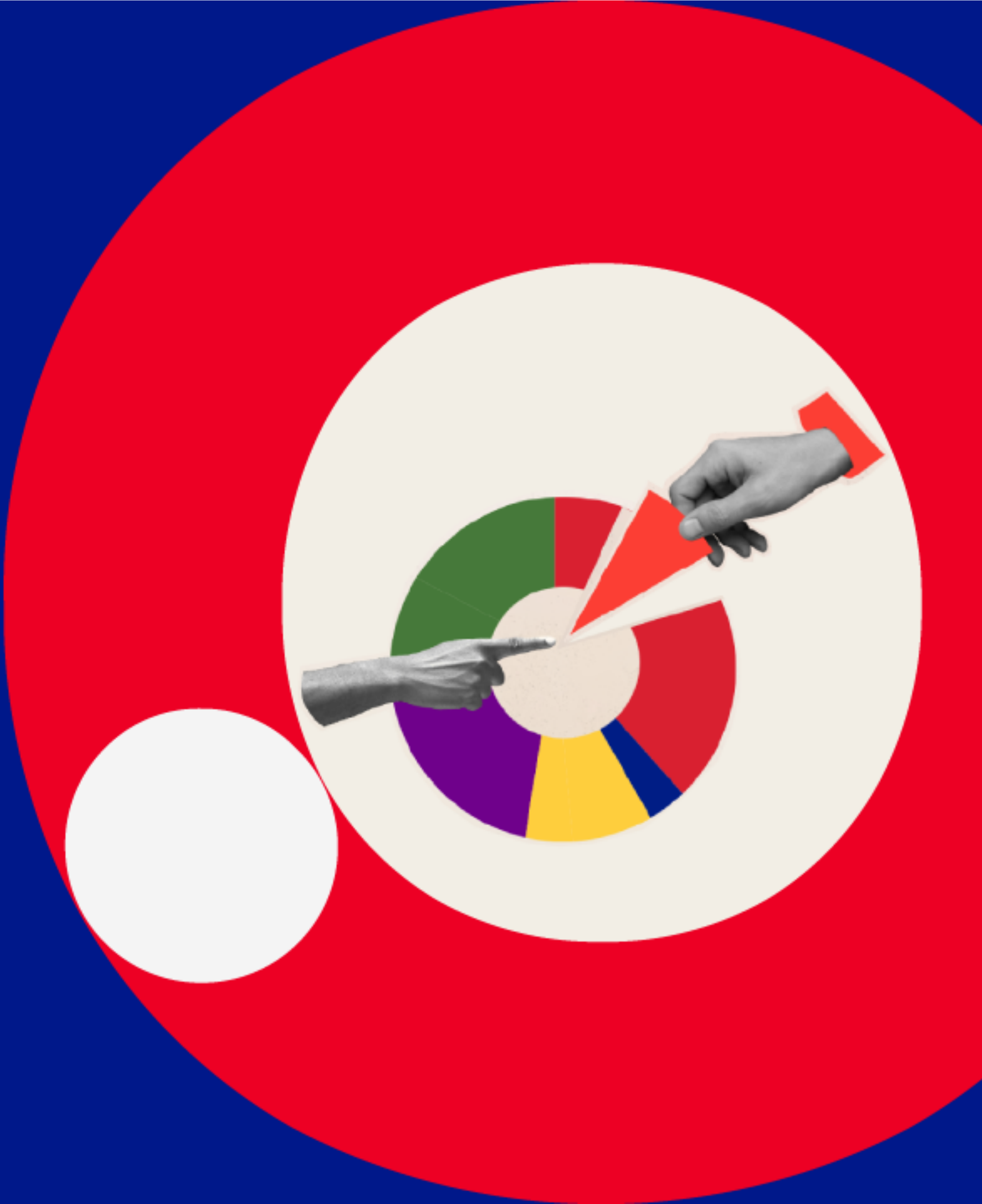
Martin Page

Sanja Arizanovic

Miroslav Líška

Lukáš Jankovič

Please provide your feedback!



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2024 activities!

data.europa academy

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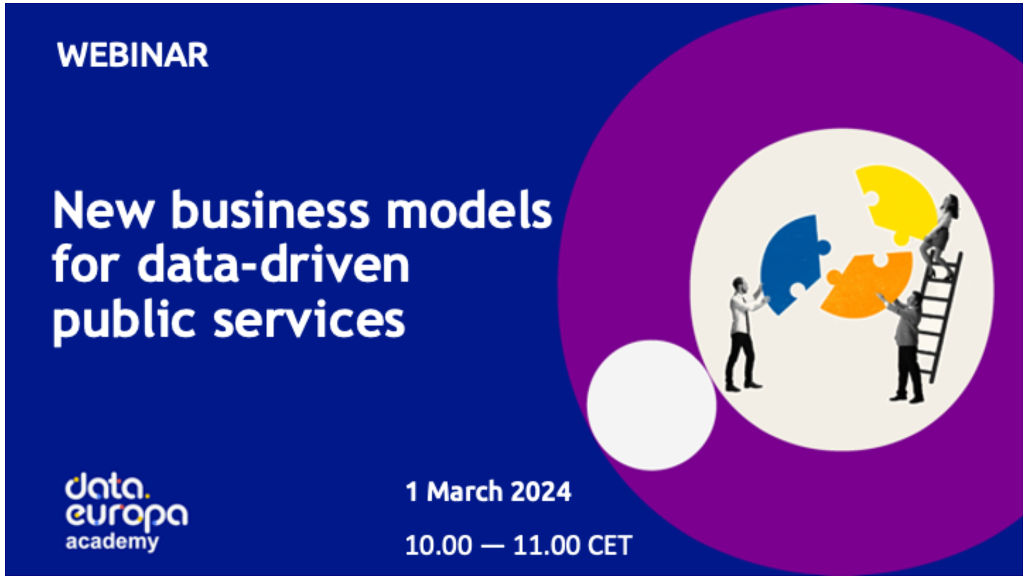

WEBINAR

New business models for data-driven public services

1 March 2024

10.00 — 11.00 CET

Thank you!

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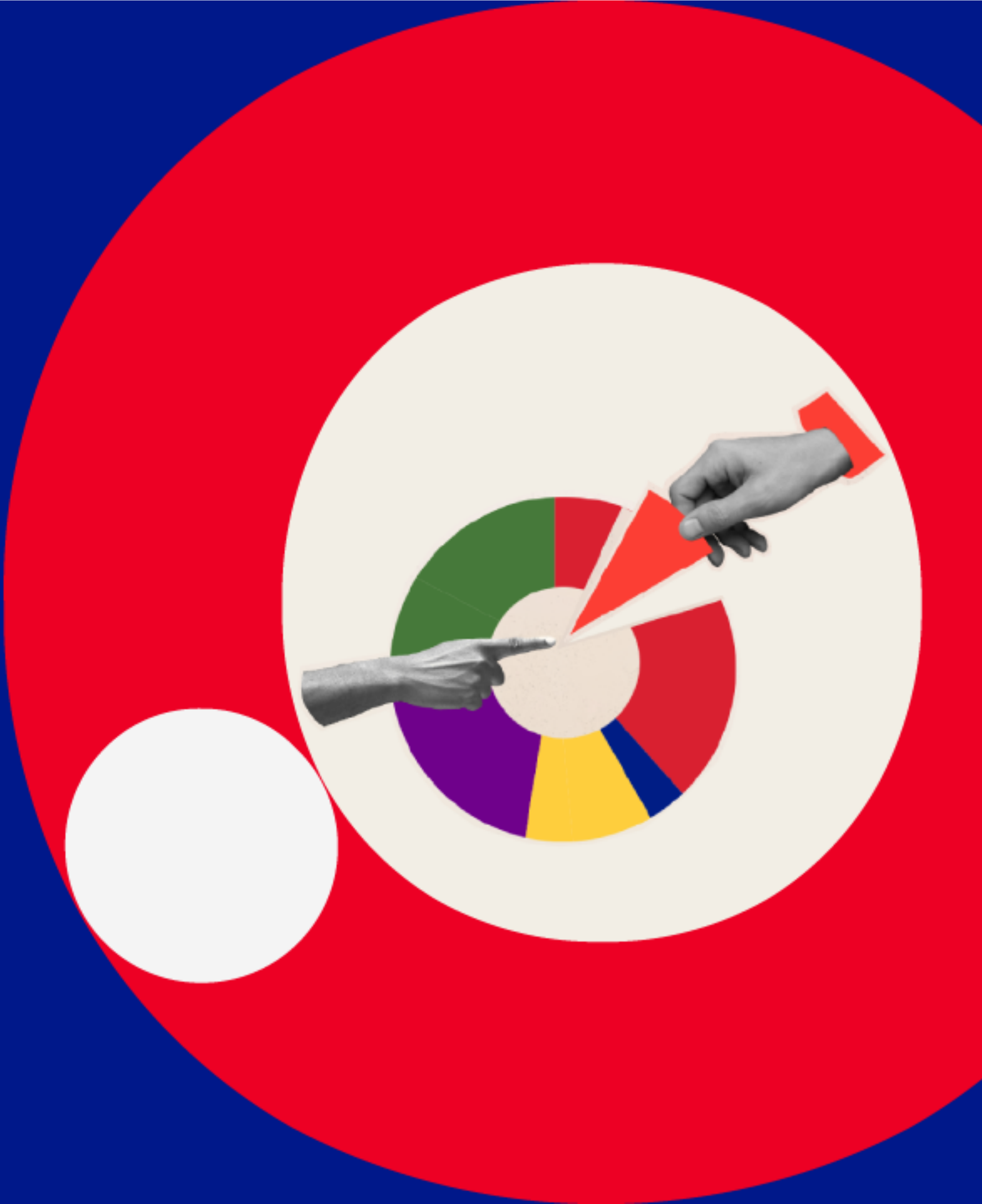data.
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