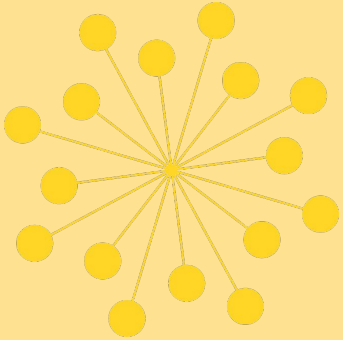
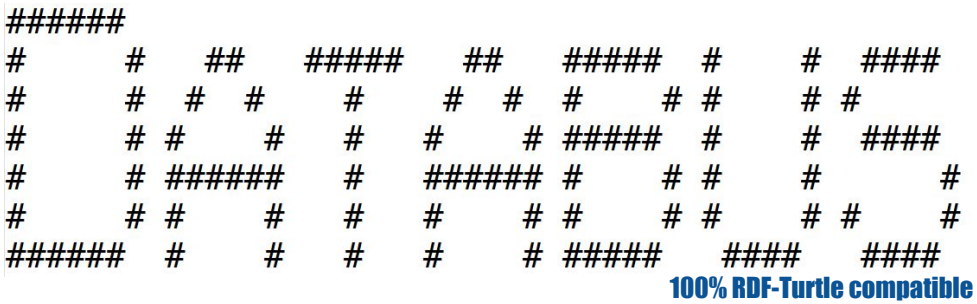




Sebastian Hellmann

http://dbpedia.org

InfAI®
Institut für Angewandte Informatik

Contents

Board of Trustees (17 persons)

Main decisive body of the association

3 DBpedia founding members, 2 DBpedia Association founding members, 2 InfAI ombudsmen delegates, 2 Chapter delegates, 4 Advisory Committee delegates, 2 Community Committee delegates, 2 external invited experts














Institute for Applied Informatics (InfAI)

Not-profit umbrella organization
based in Leipzig

InfAI Ombudsmen

InfAI full member who are active in DBpedia

DBpedia Association, non-profit

Board of Trustees (17 persons)

Main decisive body of the association

3 DBpedia founding members, 2 DBpedia Association founding members, 2 InfAI ombudsmen delegates, 2 Chapter delegates, 4 Advisory Committee delegates, 2 Community Committee delegates, 2 external invited experts

DBpedia Executives

DBpedia Executive Team

Executive Director, Technical Director and Staff

Language, Regional and Special Interest Chapters

Chapter Executives and Chapter Teams

DBpedia Members

Advisory Committee

organisation representatives

Community Committee

active community members

Institute for Applied Informatics (InfAI)

Not-profit umbrella organization based in Leipzig

InfAI Ombudsmen

InAI full member who are active in DBpedia

DBpedia Members

Contents

DBpedia Strategy Surveys

https://blog.dbpedia.org/2017/07/11/results-of-the-dbpedia-strategy-survey-2017

https://blog.dbpedia.org/2018/09/26/dbpedia-chapters-survey-evaluation-episode-one/

https://blog.dbpedia.org/2018/10/02/dbpedia-chapters-survey-evaluation-episode-two/

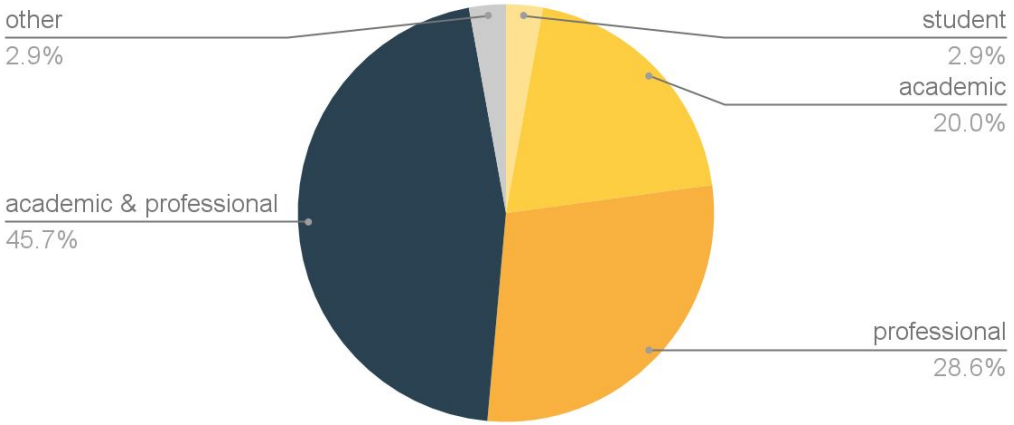
DBpedia Strategy Survey 2017 (40 participants)

3. What is your main interest in DBpedia?

Community identity:

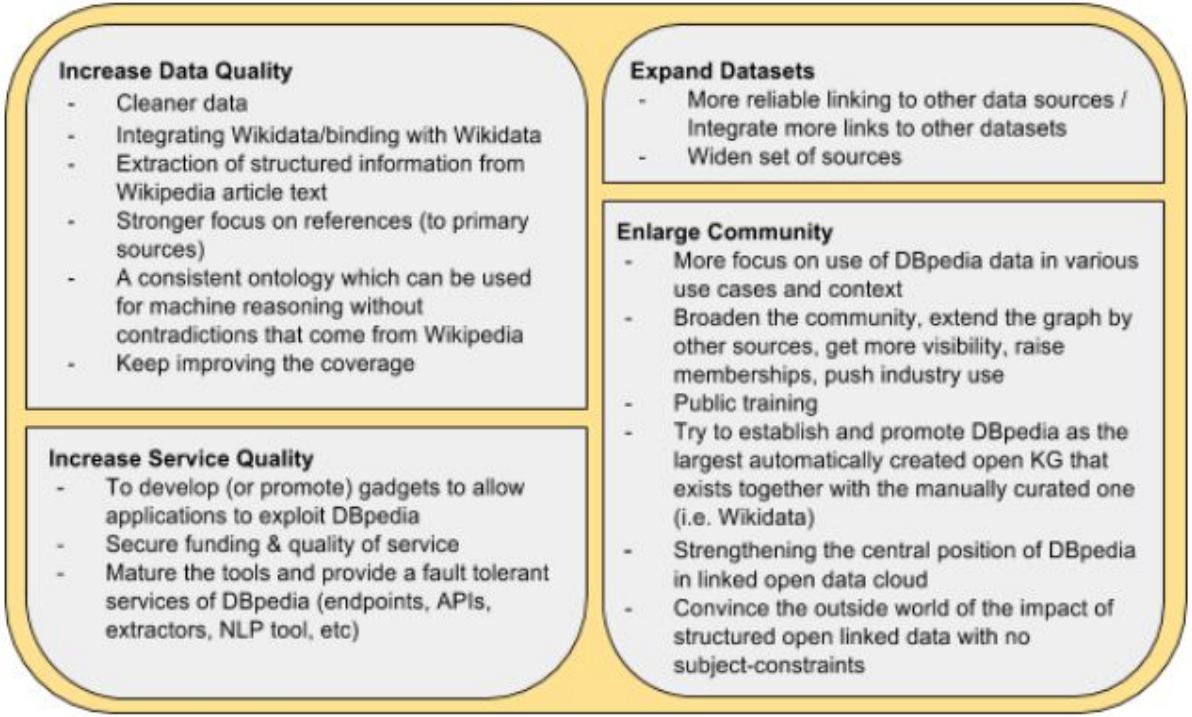
Engineering is the use of scientific principles to design and build (information) machines

Engineering impact:
Academic input and industrial output results in extremely fast lab-to-market



DBpedia Strategy Survey 2017 (40 participants)

2. What should be the priorities of the DBpedia Association in the next three years?



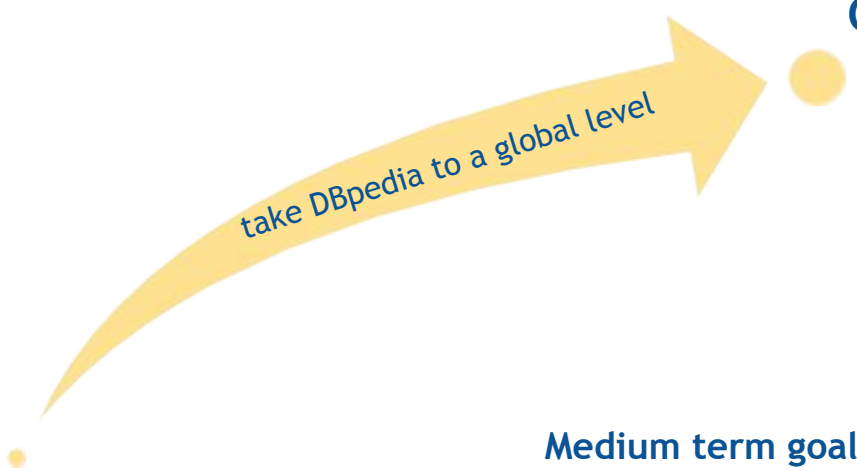
DBpedia Strategy Overview

Starting point
DBpedia is the most successful open knowledge graph (KG)

State:

- 20 million hits daily (all APIs)
- 0.6 million files served per year
- 400 developers across organisations
- The linking hub for Linked Data
- hundreds of interfaces
- >20 language chapters

DBpedia Strategy Overview



Global DBpedia Platform

- Communication & collaboration
- Share efforts and results
- Maximise societal value

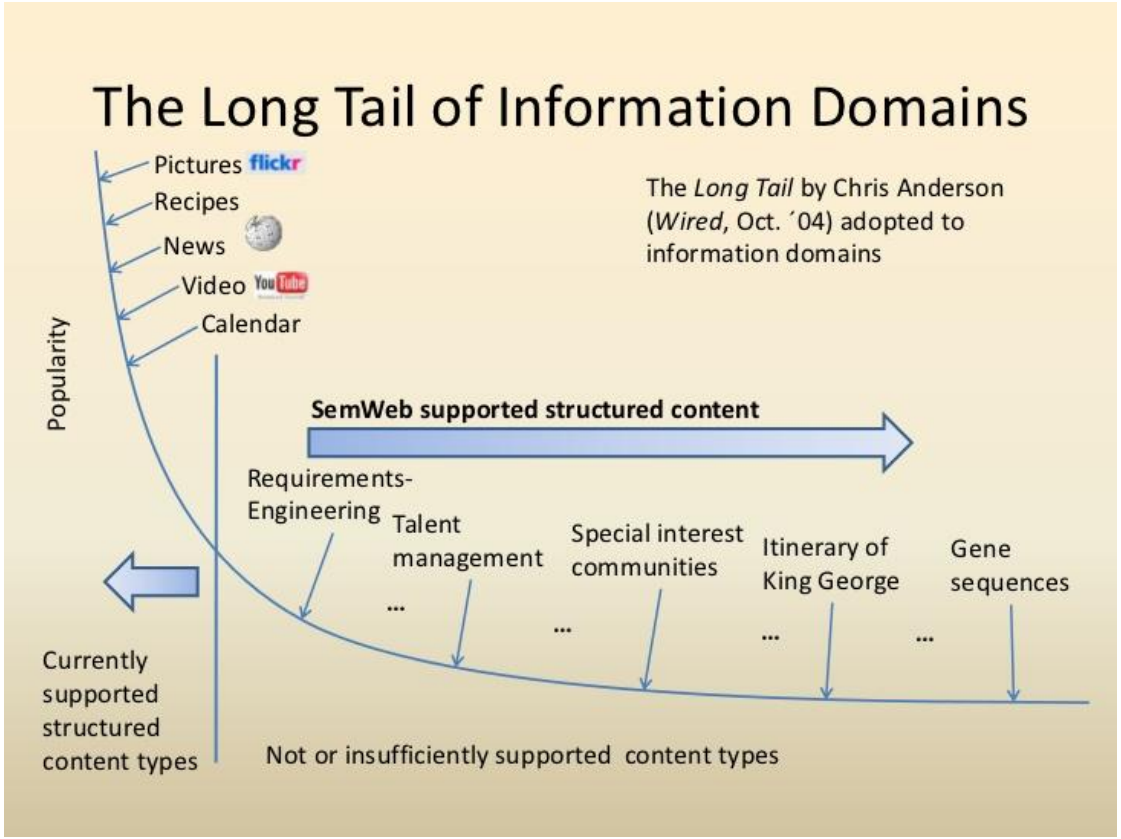
Starting point

DBpedia is the most successful open knowledge graph (KG)

Medium term goals

- 200 core orgs share value via platform
- 50% of IT projects upload data
- 10 millions of users, high contribution rate
- thousands of new businesses and initiatives around the platform

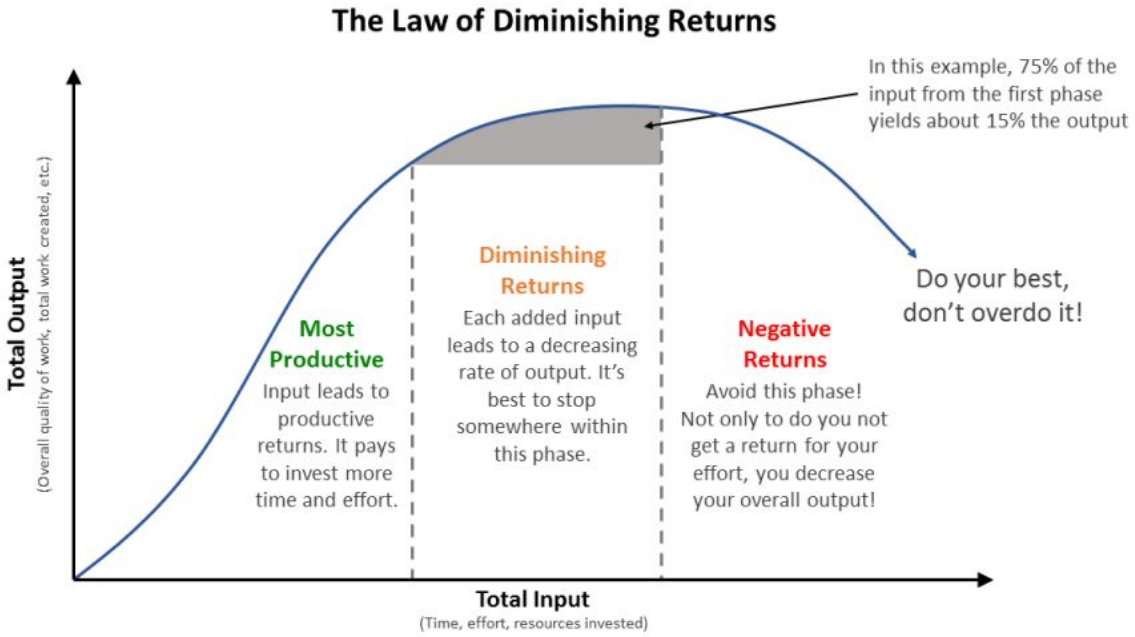
Scaling up the DBpedia principle (problems)



Source: The Semantic Data Web, Sören Auer, University of Leipzig

https://www.slideshare.net/lod2project/the-semantic-data-web-sren-auer-university-of-leipzig

Scaling up the DBpedia principle



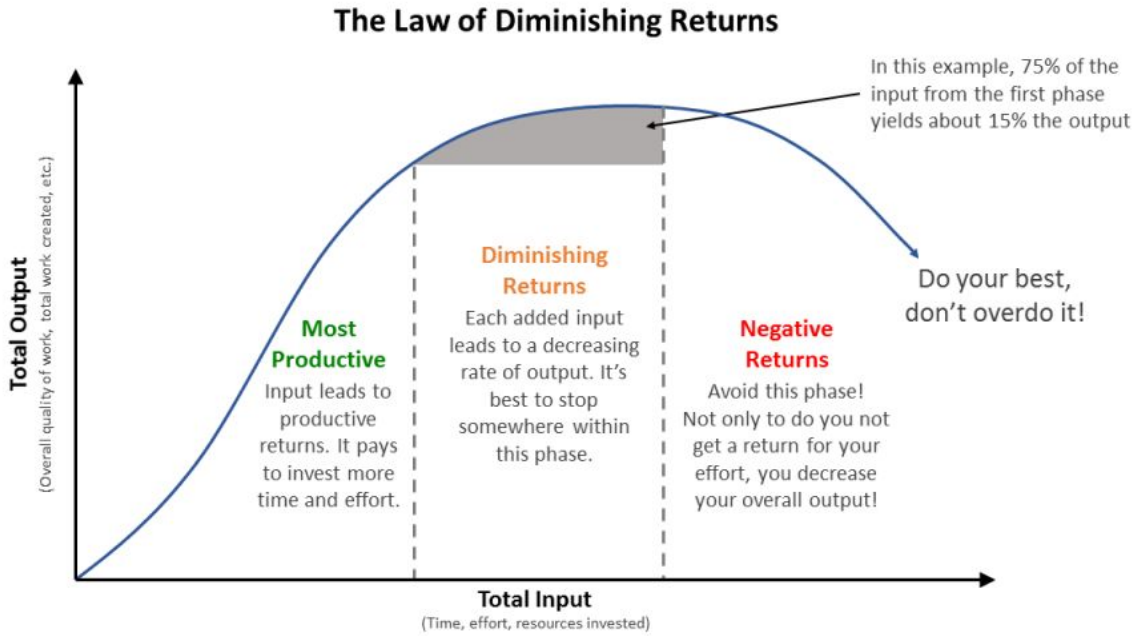
Data Quality is 20/80

Law totally applies

Solutions are:

- Better debugging tools
- Efficient manual curation
- Organised collaboration

Scaling up the DBpedia principle



https://pmctraining.com/site/resources-2/4-unique-strategies-to-squeeze-more-time-out-of-your-day/law-of-diminishing-returns-chart/

Data Quality is 20/80

Law totally applies

Solutions are:

- Better debugging tools
- Efficient manual curation
- Organised collaboration

Goal 1:

Innovation

https://tinyurl.com/dbpedia-databus-semantics-2019

Network Disasters I

- What have the following organisations in common (could be thousands more)?

Network Disasters I

- What have the following organisations in common (could be thousands more)?

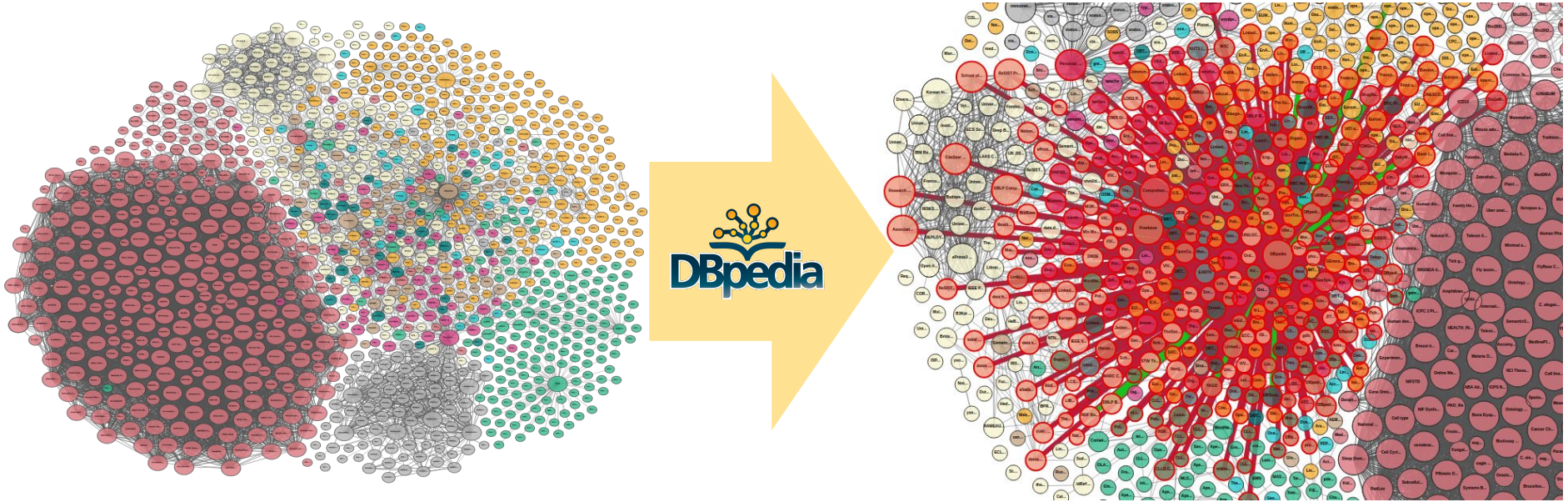
Goal 2: Syncing and upstream contributions

Network Disasters II - Copying

- If one unparseable line needs 15 minutes to find and fix, we are talking about 104 days of work for 10,000 downloads.
- All publishers are struggling with data quality (due to Law of Diminishing Returns), yet all their consumers have invested 50-5000 times their effort in cleaning

Goal 3: Don’t rely on data publishers, rely on other consumers

Network Disaster III - Linking/Mapping



$O(n^2/2)$ vs. $O(n)$ + Client-side created links + work for crawling (no standards)

Goal 4: Global view on links and mappings and standards

4 Scalability Goals

1. Innovation (debugging, efficient manual curation, processes)
2. Syncing and upstream contributions
3. Don’t rely on data publishers, rely on other consumers
4. Global view on links and mappings and standards

DBpedia way is very effective, but did not scale:

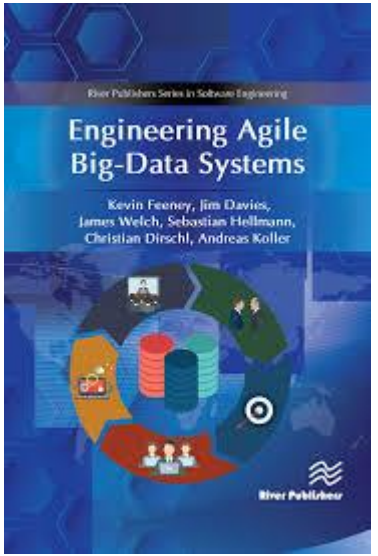
- http://mappings.dbpedia.org/index.php/Mapping_Statistics
- http://global.dbpedia.org
- http://dbpedia.org/resource/Karlsruhe

Foundations

ALIGNED: Aligning Software & Data Engineering 2015 - 2018
http://aligned-project.eu

Engineering Agile Big-Data Systems
defines three dimensions to evaluate systems:

- productivity
- quality
- agility



https://www.riverpublishers.com/book_details.php?book_id=659

Contents

Platform and platform economies

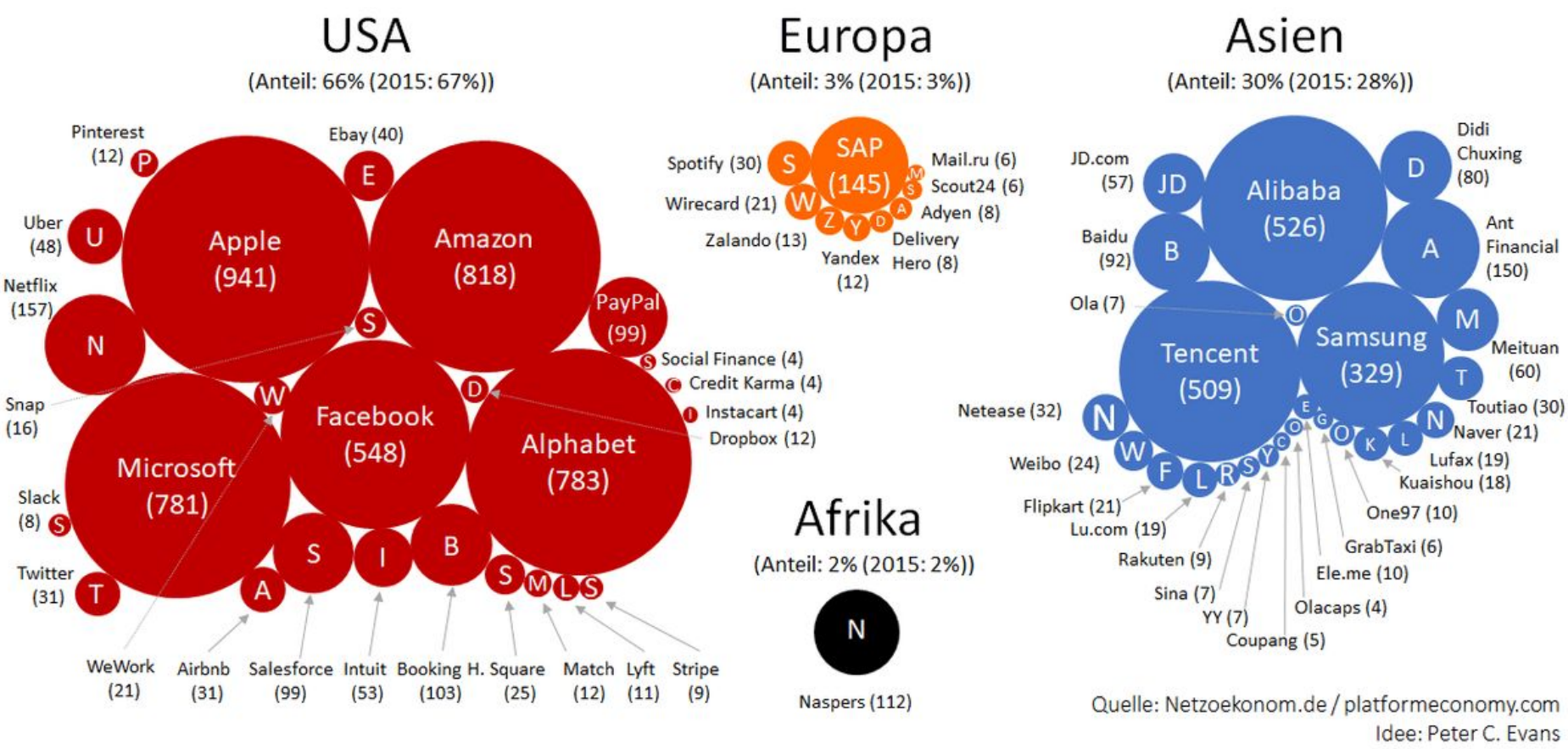
Honestly, I am not an economist, I am an engineer

One of few topics, where Wikipedia is not helpful to understand it

Contents:

- Rough overview
- Some principles
- Some examples, that I understand

Die 60 wertvollsten Plattformen der Welt (Angaben in Mrd. Dollar (Börsenwert/jüngste Finanzierung, 10.06.2018))



Quelle: Netzoekonom.de / platformeconomy.com
Idee: Peter C. Evans

http://tinyurl.com/dbpedia-xml-2019

Some principles

Different types of platforms:

1. They provide tools to build or add something of value (Github, Instagram, Youtube, Minecraft)
2. They do matchmaking and transactions (Steam, Tinder, Ebay, Amazon, Paypal, Uber)
3. They give you free stuff, but you are the product (Google, Facebook)

Users and usage aggregate value on the platform

They get very very fast, very very big, if they earn on the transactions not on the infrastructure.

Some examples

- Germany (states)
- Universities
- Internet Service Providers (ISP)
- WWW
- Google
- Amazon
- Paypal
- Wikipedia
- Wikidata
- DBpedia Mappings Wiki
- Databus

Databus Platform

Databus has quite unique properties for a platform

Very synergistic due to network effects:

- Users can get much more value than the sum

Basic principle is interoperability between:

- Access to data
- Discovery and Analysis of data
- Recombination of data into new Knowledge Graphs or Applications
- Injection of data into software
- Deployment of Software and data

Databus Platform

Open platform:

- **open standards (SPARQL, Maven)**
- **open value revenue**
- **extensible (can even build own platform on top)**

There is a good chance to scale beyond Google's (small) knowledge graph

Alternative closed business model: Revenue based on mappings

Mission: Global and Unified Access to Knowledge Graphs

Databus Platform

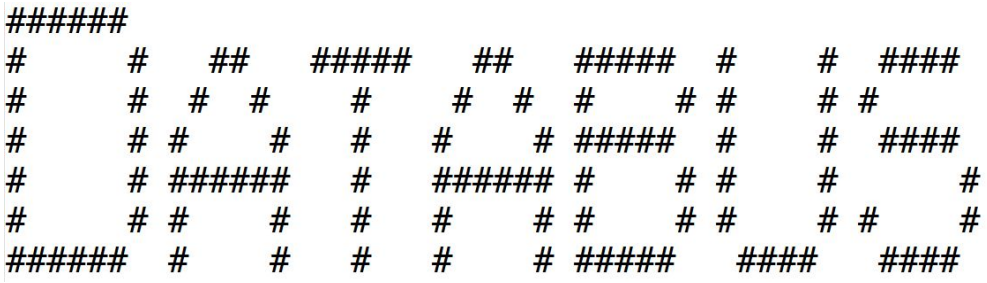
Commercialisation later, non-threatening to open data, in fact:

- **Databus incentivises Open Data and Open Data business models**
- **Extreme high synergies and value revenue**

Two things:

- https://tinyurl.com/dbpedia-connect-2019
- Read about the new initiative

Contents



Digital Factory Platform

https://databus.dbpedia.org/

https://databus.dbpedia.org/repo/sparql

Inspired by

MVNREPOSITORY

STEAM®

GitHub

Downloading the Data

Via Website: https://databus.dbpedia.org/dbpedia/mappings/instance-types

http://dev.dbpedia.org/Download_Data

(talk through the WebID)

Downloading the German Chapter Data

http://dev.dbpedia.org/Download_DBpedia

(talk through the WebID)

Yes, it is a semantic link base

During BETA/6 months, please don’t upload links to

- billions of your cat pictures
- your dirty movie collection
- copyrighted material

Triple overhead: 20 triples for each file

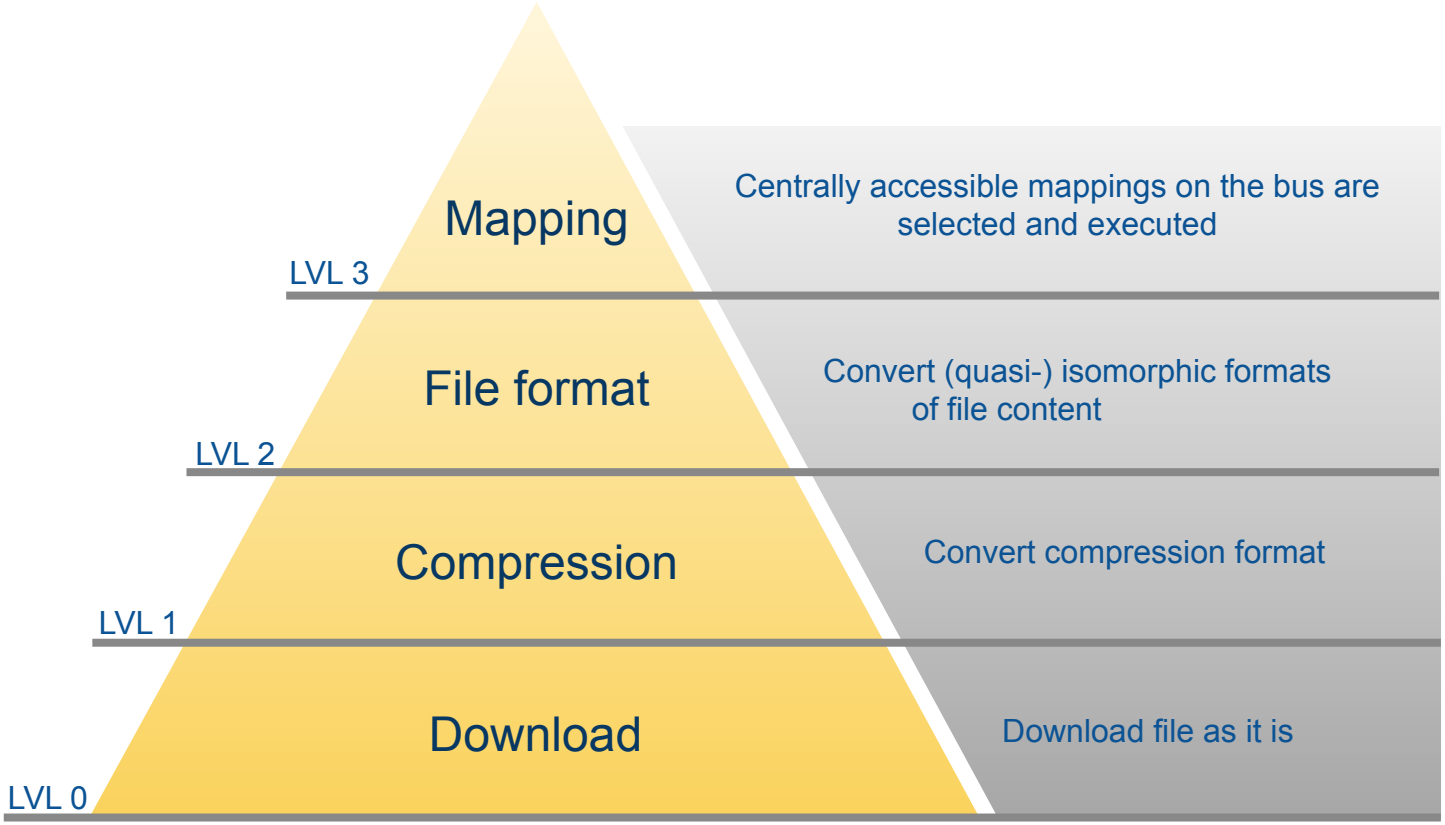
If our community works together, we are the ones that will actually manage to implement a working upload filter!

Downloading via Databus Client

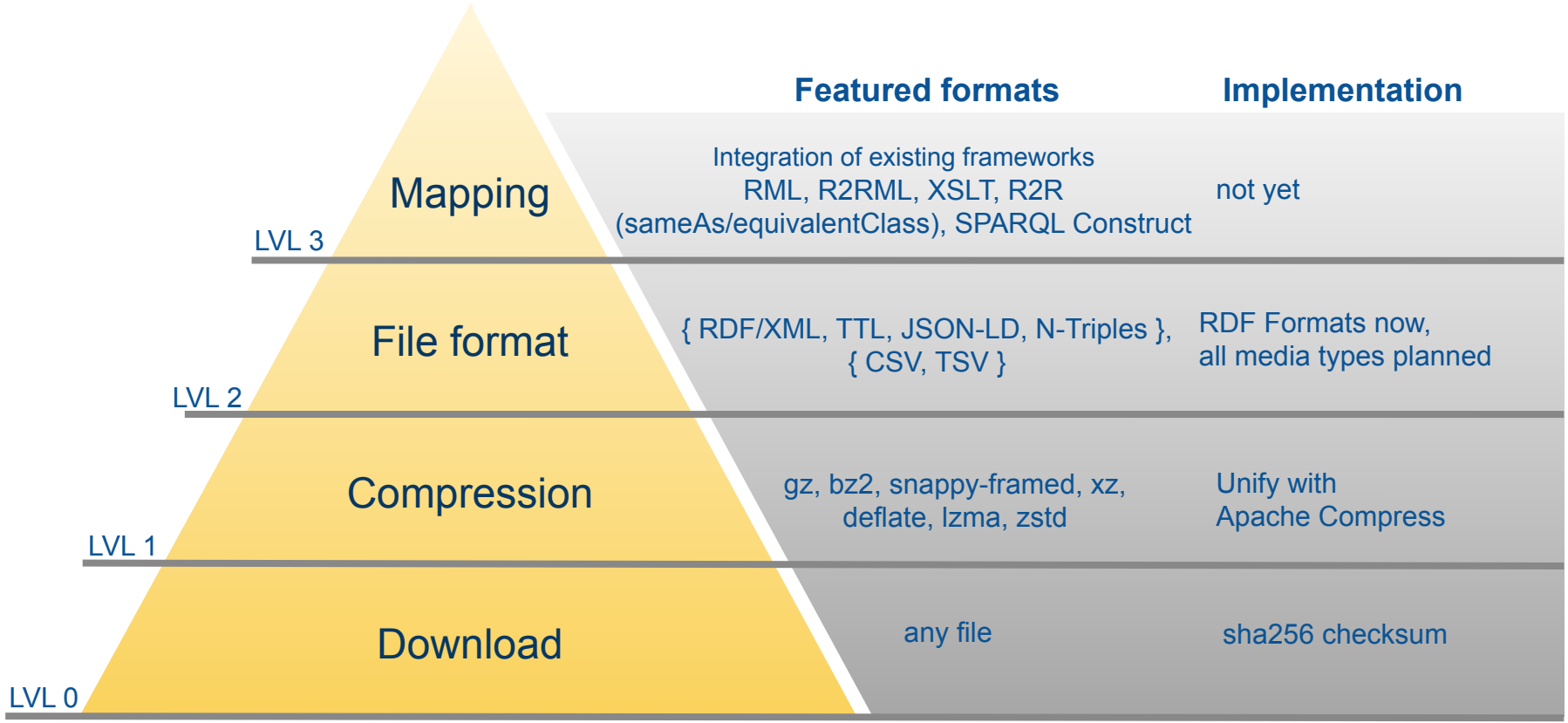
Docu: http://dev.dbpedia.org/Databus_Client

Overall idea copied from the Web Browser, a **single client to retrieve all infos: HTML, CSS, Javascript, Flash, Unity, Java, Movies**

Databus-Client: concept



Databus-Client: current features



Synergies

DockerHub: https://hub.docker.com/u/dbpedia

Downloading via Derive Maven Plugin

http://dev.dbpedia.org/Databus_Derive_Maven_Integration

Contents

Debugging the Data

http://dev.dbpedia.org/Improve_DBpedia

https://databus.dbpedia.org/dbpedia/mappings/mappingbased-literals/2019.09.01

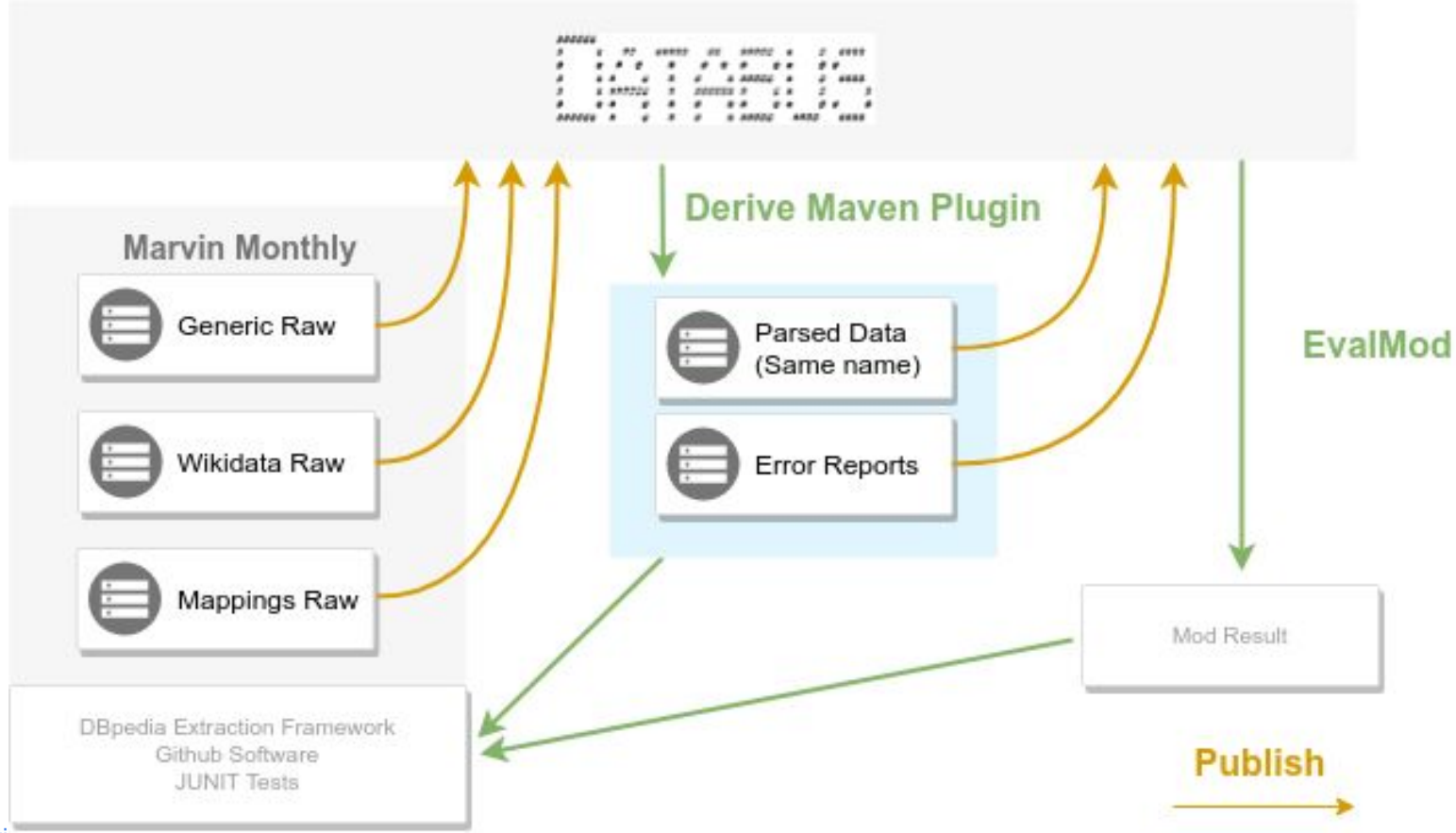
(show links to forum)

curl -L
https://databus.dbpedia.org/dbpedia/mappings/mappingbased-literals/2019.09.01/mappingbased-literals_lang=en.ttl.bz2 | bzcat | cut -f1 -d '>' | grep ?

https://github.com/dbpedia/extraction-framework/tree/master/dump/src/test

https://databus.dbpedia.org/sven-h/dbkwik/dbkwik/2019.09.02

Debugging the Data



https://tinyurl.com/dbpedia-databus-semantics-2019

Extending DBpedia Extraction Framework

Copy and Adapt: http://dev.dbpedia.org/MARVIN_Release_Bot

Mods

Decentralised Updates vs. a consistent view over all data

Mods Download, Process and add extra properties and reports.

http://dev.dbpedia.org/Databus_Mods

Uploading

Upload plugin http://dev.dbpedia.org/Databus_Upload_User_Manual with:

* mvn validate -> check account and consistency

* mvn prepare-package (goal databus:metadata -> collects metadata in target/databus/$artifact/$version/dataid.ttl

* mvn package -> copies data into a package directory on the server often /var/www/html/databusrepo/$user/$group/$artifact/$version

* mvn deploy -> post the dataid.ttl to databus.dbpedia.org

We configure it with pom.xml and markdown docu:
https://github.com/dbpedia/databus-maven-plugin/tree/master/dbpedia/mappings

Who should upload, what?

On the Databus:

Publishers become consumers:

a) incorporate/consume fixes from a consumer network

b) to deploy their infrastructure:

http://dbpedia.org/sparql

Who should upload, what?

Remember to add everything to:

https://tinyurl.com/dbpedia-connect-2019

Consumers have better data than publishers and our community has very good tools.

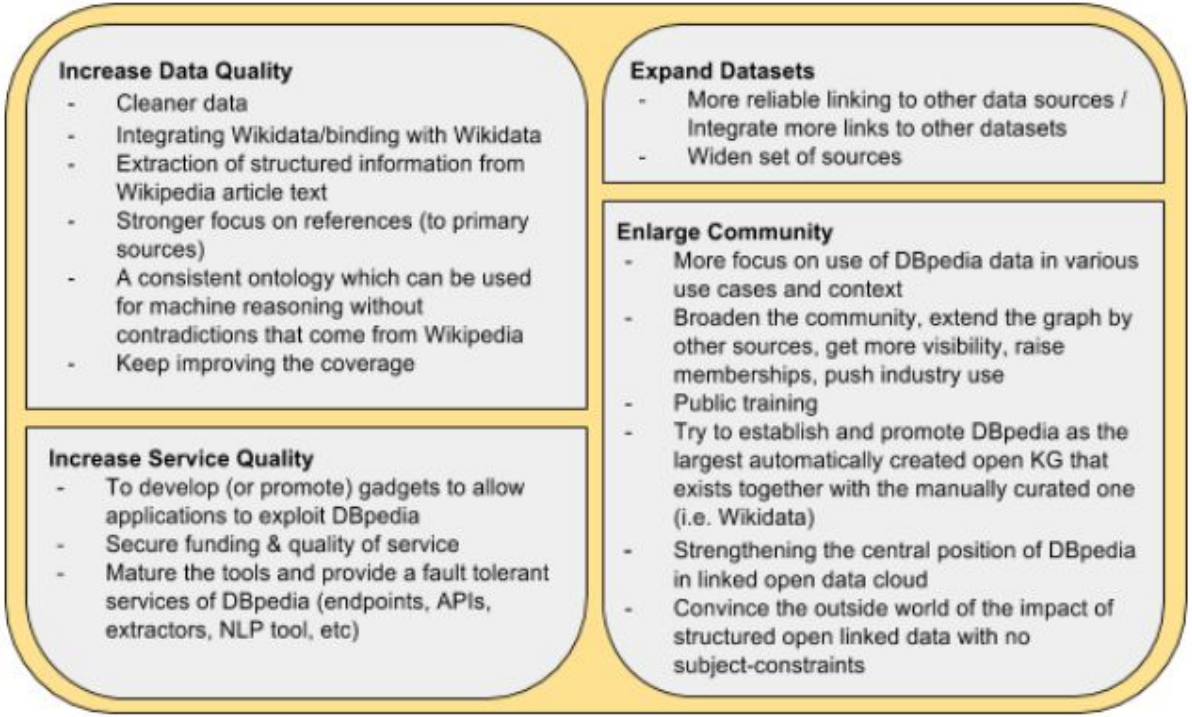
If we just get the chapter transfer running, how awesome would that be?

If we get 40 medium research groups and companies to publish the last 40 datasets they cleaned, that is 1600 clean datasets.

If we can build the central linking and mappings, we could all use them.

DBpedia Strategy Survey 2017 (40 participants)

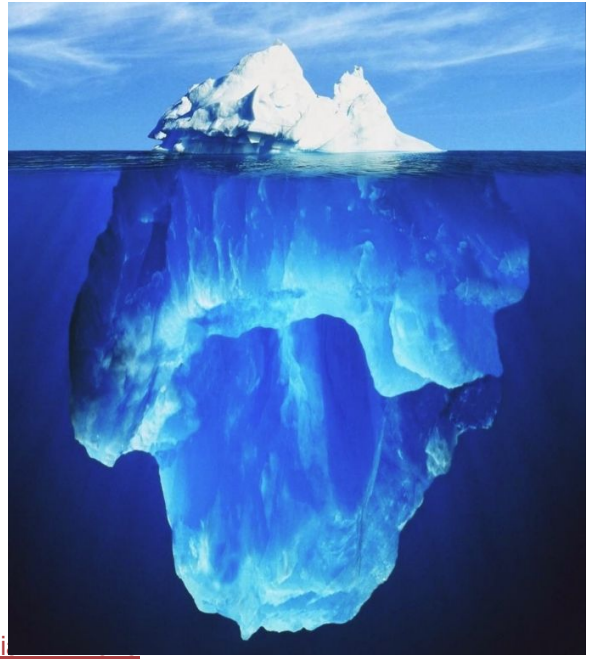
2. What should be the priorities of the DBpedia Association in the next three years?



4 Scalability Goals

1. Innovation (debugging, efficient manual curation, processes)
2. Syncing and upstream contributions
3. Don’t rely on data publishers, rely on other consumers
4. Global view on links and mappings and standards

Less work, better benefits



http://tinyurl.com/dbpedi

Source: http://artpictures.club/shans-february-5-13.html


FIZ Karlsruhe
Leibniz-Institut für Informationsinfrastruktur
OPENLINK SOFTWARE
ontotext
TIB
LEIBNIZ-INFORMATIONSZENTRUM
TECHNIK UND NATURWISSENSCHAFTEN
UNIVERSITÄTSBIBLIOTHEK
huygens ing
imec
eccenca
command your data!
Fraunhofer
IAIS
KB
Koninklijke Bibliotheek
Nationale bibliotheek
van Nederland
diffbot
OPEN KNOWLEDGE
INTERNATIONAL
GET YOUR
membership
UNIWERSYTET EKONOMICZNY
W POZNANIU
1926
SPRINGER NATURE
SEMANTIC WEB COMPANY
linking data to knowledge
NETWORK
INSTITUTE
SOUND AND VISION
Linked Open Data Initiative

DBpedia - News Summary

- 10 years of wild growth - time to restructure
- 2 year long strategic discussion - some points cleared
- Strong network of people and organisations (community)
  - TIB provided three extraction servers

What is new:

- slack.dbpedia.org complemented by http://forum.dbpedia.org
- Databus - well-defined, fast (cheaper) release processes

DBpedia - Association Hour

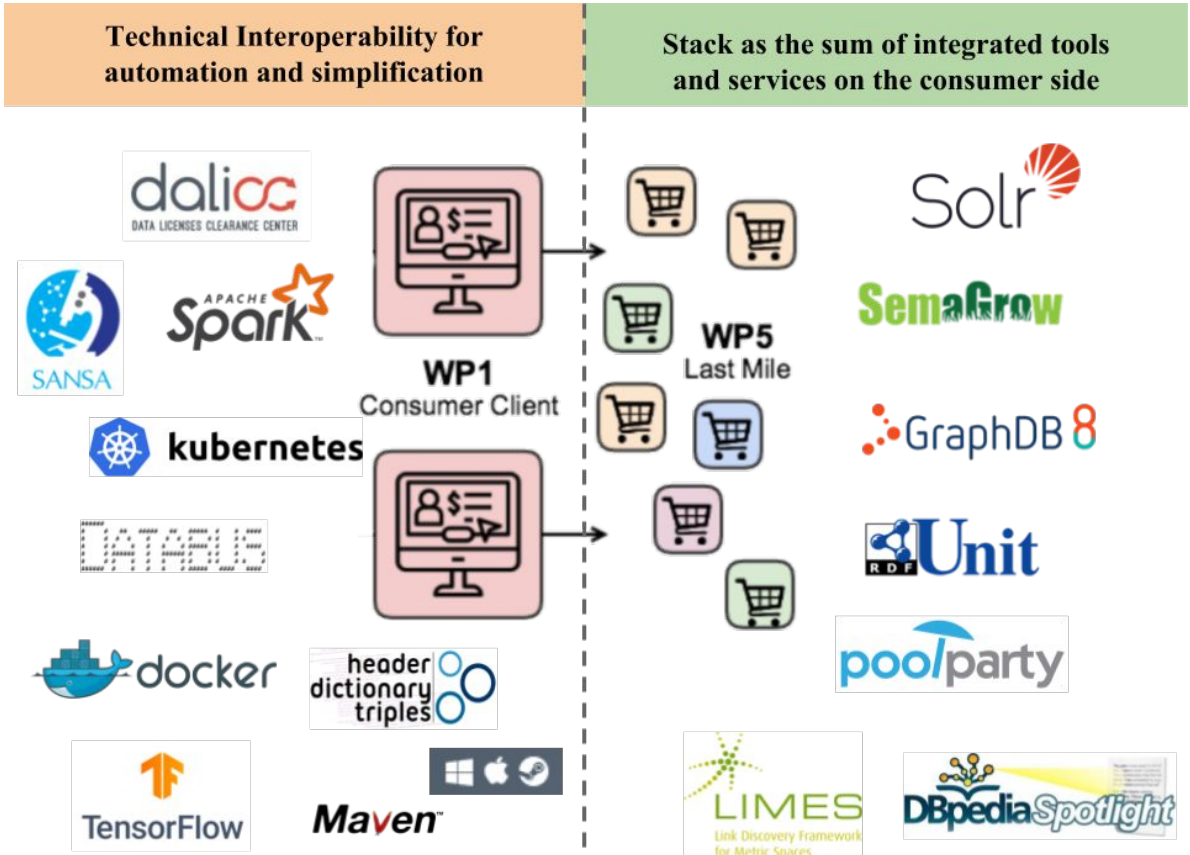
- Discuss Databus, releases, fusion
- Sustainability vs economic viability
  - Sustainable due to strong community
  - 2 types of deterioration:
    - Breakage needs forever to be repaired
    - Needs change, but DBpedia is stagnant (hard to keep up)
  - DBpedia can not grow with the needs
- Chapters/subcommunities and community growing

https://tinyurl.com/dbpedia-databus-semantics-2019

Efficiency (Ex. 5 Datasets and 5 Tools)

Without Databus	With Databus
2 days research, identifying the right data market or supplier	2 hours, registering and installing the client
3 days browsing and comparing data manually based on the description of the data. Often a personal meeting with a data representative is required to understand the data	4 hours browsing using the semantic index for data comparison and topic classification. Samples and reviews are provided. Data demand can be specified with SHACL for a technical search or tendering.
3 days of implementing 5 different modalities of access	1 second button click as automatic access and storage is an essential feature of the client
5 days researching appropriate tools on the web	4 hours browsing available tools in the one-shop-client
2 days reading documentation for 5 tools	50 minutes adaption as tools are pre-configured with defaults
1 day low-level data conversion	automatic
3 days deploying tools and loading data into tools, e.g. a database	10 minutes, automatic, deployment server access needs to be provided, usage of kubernetes and docker, cloud services are integrated in client
19 work days	**9 hours, 1 second (~50 times faster)**

Databus - 5 year vision



https://tinyurl.com/dbpedia-databus-semantics-2019

Databus - Digital Factory Platform

Demo:

https://databus.dbpedia.org

https://databus.dbpedia.org/dbpedia

https://mvnrepository.com/artifact/org.apache

http://forum.dbpedia.org

http://dev.dbpedia.org/Data#example-application-virtuoso-docker

Databus - main unique features

- Define abstract identity of datasets with artifact & version
  - https://toolbox.google.com/datasetsearch/search?query=dbpedia
- Stable IDs - Data DNS
  - SPARQL API - query for dcat:downloadURL
  - Redeploy is equivalent to DNS A record update
  - Each dataset is like a domain
- Automation of complex workflows
  - SPARQL query as a data dependency configuration
  - Hyper-dimensional petri net

DBpedia Core Dataset Groups

Available extractions amount to 13 billion facts total (200 GB)

- Generic (automatic)
- Mapping-based (rule-based)
- Text
- Wikidata

Based on the Wikimedia XML dumps

Generic extraction

- 132 languages, 30 datasets
- https://en.wikipedia.org/w/index.php?title=Prague&action=edit
- http://dbpedia.org/page/Prague
- https://github.com/dbpedia/extraction-framework/tree/master/core/src/main/scala/org/dbpedia/extraction/mappings

Mappingbased extraction

- 40 languages, 6 datasets
- http://dbpedia.org/ontology properties

```
| coordinates                = {{coord|50|05|N|14|25|E|region:CZ|display=inline,title}}
| subdivision_type           = Country
| subdivision_name           = [[Czech Republic]]
| established_title          = Founded
| area_urban_km2             = 298
```

Property Mapping (help)	
template property	area_urban_km2
ontology property	areaUrban
unit	squareKilometre

Geocoordinates Mapping (help)	
coordinates template property	coordinates

Geocoordinates Mapping (help)	
longitude degrees template property	longd
longitude minutes template property	longm
longitude seconds template property	longs
longitude direction template property	longEW
latitude degrees template property	latd
latitude minutes template property	latm
latitude seconds template property	lats
latitude direction template property	latNS

- http://dbpedia.org/resource/Prague

Text extraction

- 132 languages, 8 datasets
- Short and long abstracts
- Textmining training data
- Fact extraction

Currently offline due to maintenance (refactoring)

Wikidata extraction

- Same approach as for Wikipedia:
  - Generic and Mappingbased
- Mappings in JSON

+ Allows unified access over Wikipedia and Wikidata
+ Wikidata has no ontology, DBpedia has 8 (DBO, Yago, Umbel,..)
+ Generic still extracts 584 million facts

```
"P279": [
    {
        "rdfs:subClassOf": "$getDBpediaClass"
    }
],
"P625": [
    {
        "rdf:type": "http://www.w3.org/2003/01/geo/wgs84_pos#SpatialT
    },
    {
        "geo:lat": "$getLatitude"
    },
    {
        "geo:long": "$getLongitude"
    },
    {
        "georss:point": "$getGeoRss"
    }
],
```

Czech DBpedia

Po směru hodinových ručiček počínaje obrázkem nahoře: Pražský hrad, výškové budovy na Pankráci, Malá Strana, Staroměstské náměstí, Karlův most, Národní divadlo

Vlajka Prahy

Znak Prahy

heslo:	**Praga Caput Rei publicae**[p. 1] (dříve *Praha matka měst*)
status:	hlavní město, zároveň kraj a statutární město
historická země:	Čechy
LAU 2:	CZ0100 554782
kraj (NUTS 3):	**Hlavní město Praha** (CZ010)
okres (LAU 1):	**Hlavní město Praha** (CZ0100)
ISO 3166-2:CZ:	CZ-PR
Státní poznávací značka:	A
poštovní směrovací číslo:	100 00–199 00
katastrální výměra:	496 km²
obyvatel:	1 294 513[1]
rozpočtové výdaje:	60 991 mil. Kč (2010)[2]
hustota zalidnění:	2581,7 obyvatel/km²
zeměpisná šířka:	50° 05′ s. š.
zeměpisná délka:	14° 25′ v. d.
nadmořská výška:	177–399 m n. m.
nejvyšší bod:	vrch Teleček mezi Sobínem a Chrášťany *(399 m n. m.)*
nejnižší bod:	hladina Vltavy u Suchdola *(177 m n. m.)*
počet městských obvodů:	10
počet městských *(správních)* obvodů:	22
počet městských částí:	57
počet místních částí:	146

DBpedia

DBpedia

Search DBpedia... | @ http://cs.dbpedia.org | česky, čeština

CATEGORIES

TYPES

GALLERY

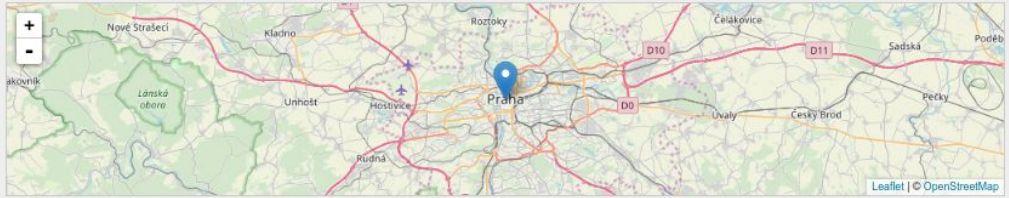
External Links

Born Here

Praha

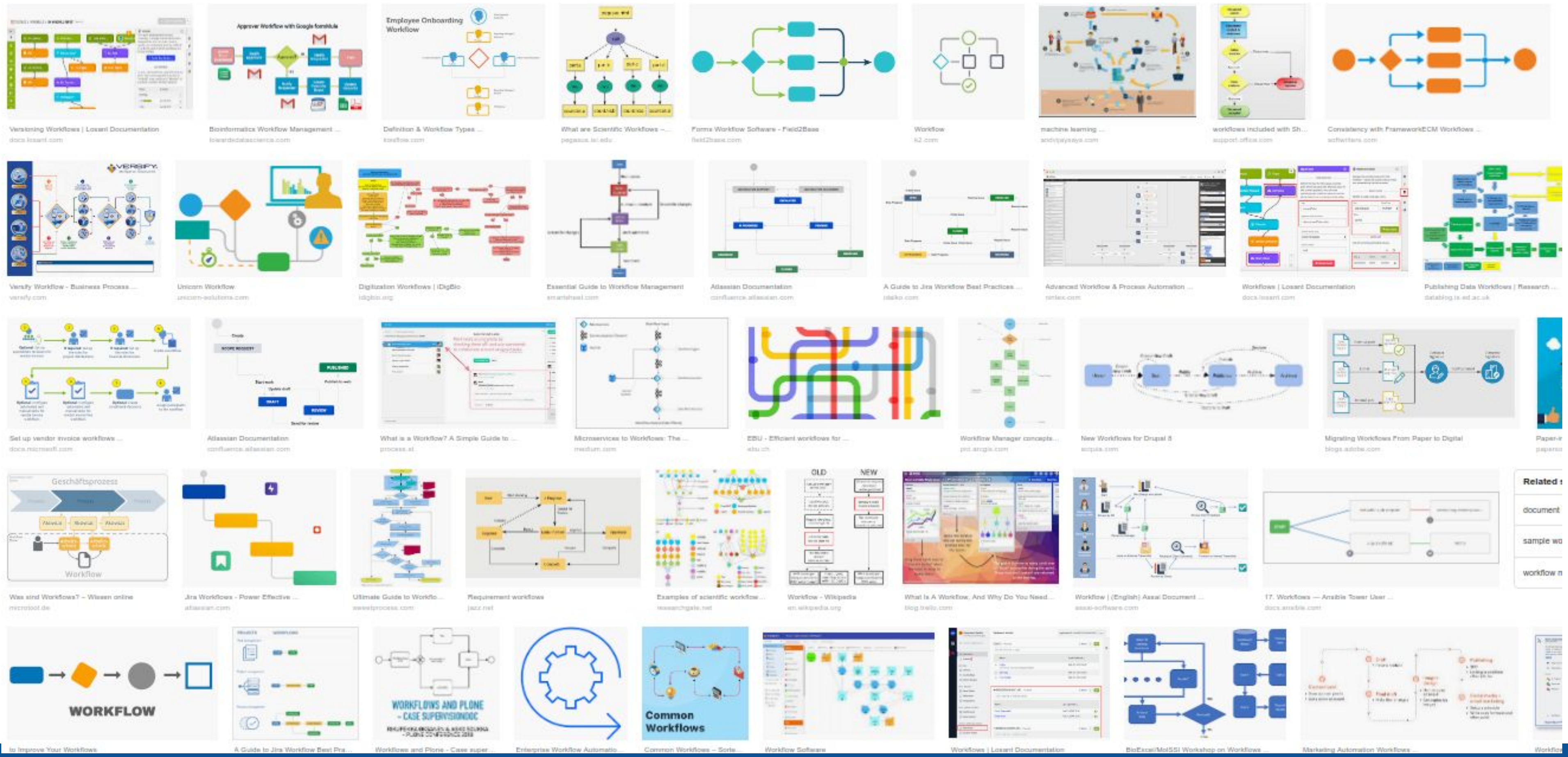
Praha je hlavní a současně největší město Česka a 15. největší město Evropské unie. Leží mírně na sever od středu Čech na řece Vltavě, uvnitř Středočeského kraje, jehož je správním centrem, ale jako samostatný kraj není jeho součástí. Je sídlem velké části státních institucí a množství dalších organizací a firem. Sídlí zde prezident republiky, parlament, vláda, ústřední státní orgány a jeden ze dvou vrchních soudů.

cs.wikipedia.org/wiki/Praha

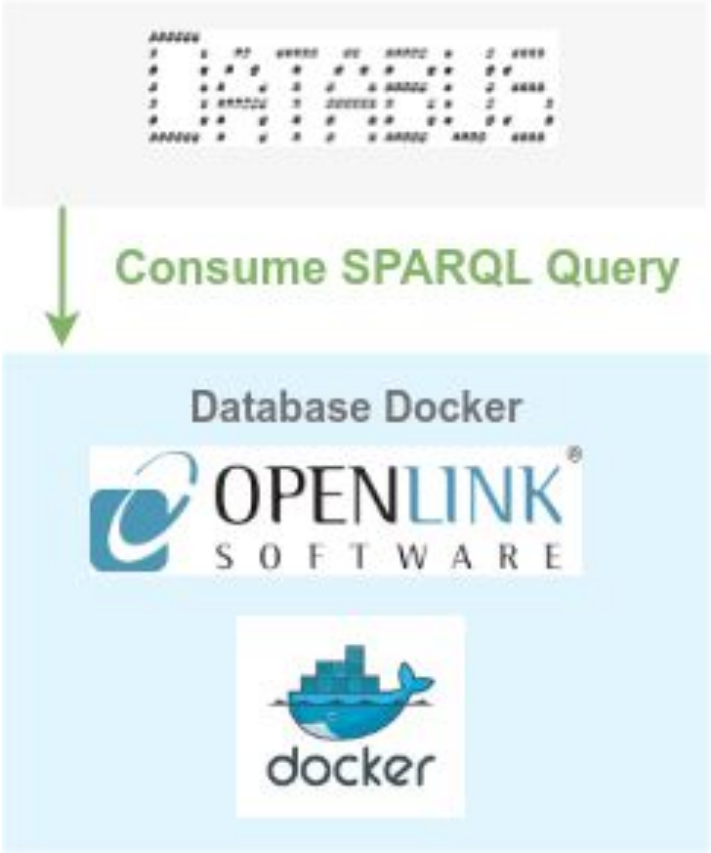


Property:	Value:
prop-cs:aprHi°c :	13.4 (xsd:double)
prop-cs:aprLo°c :	3.5 (xsd:double)
prop-cs:aprPrecipMm :	38.2 (xsd:double)
prop-cs:augHi°c :	23.5 (xsd:double)
prop-cs:augLo°c :	13 (xsd:integer)
prop-cs:augPrecipMm :	69.6 (xsd:double)
prop-cs:další :	nafotografovali, sestavili, úvodem a rejstříkem opatřili Barbora a Marek Lašťovkovi @cs
prop-cs:decHi°c :	2.1 (xsd:double)

Workflows from simple to complex

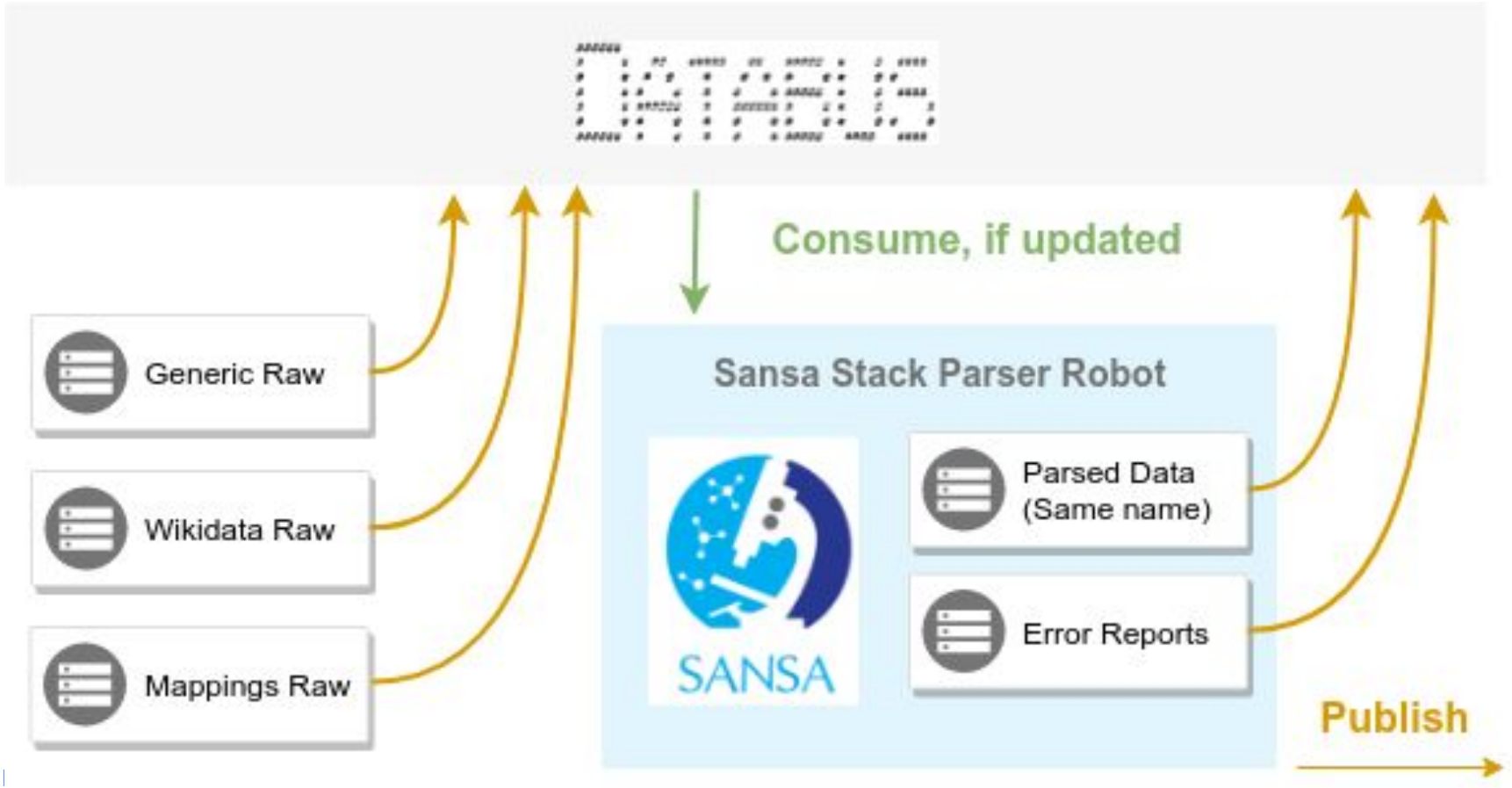


Deploy any service

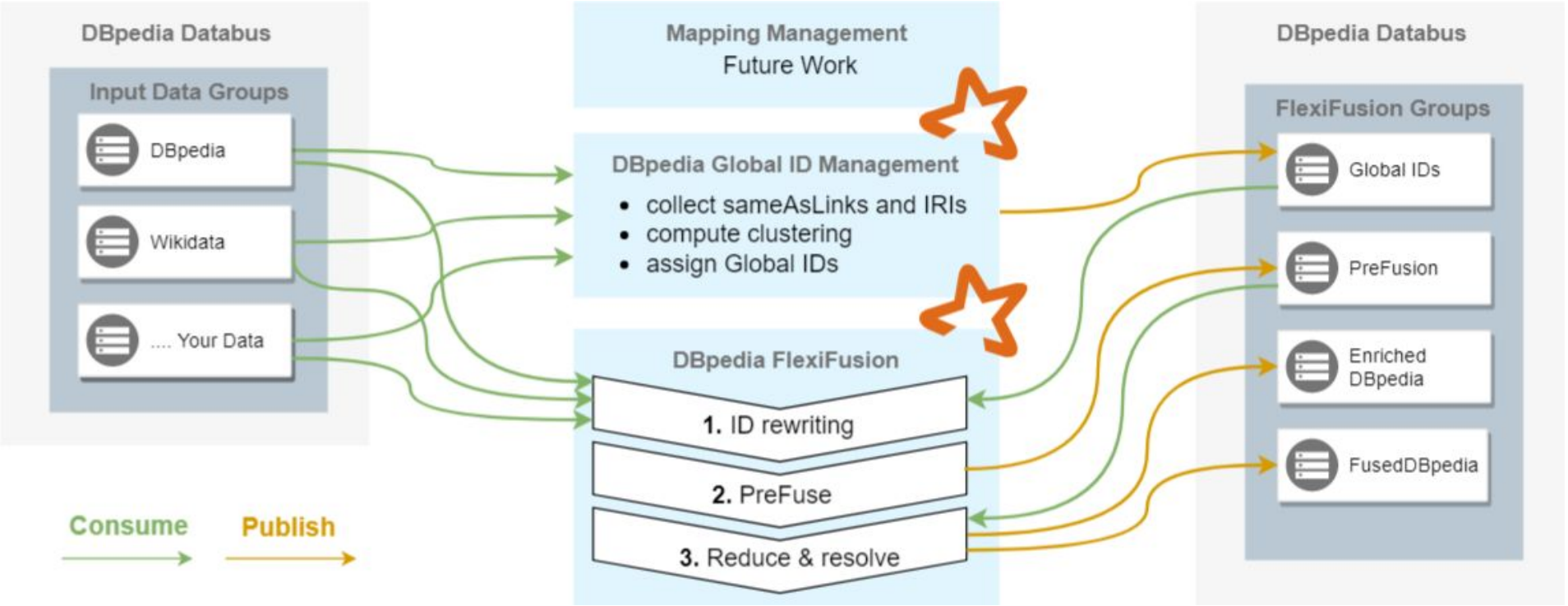


https://tinyurl.com/dbpedia-databus-semantics-2019

(Re-) Release Workflow



FlexiFusion Workflow



https://tinyurl.com/dbpedia-databus-semantics-2019

FlexiFusion Fusion

	Wikidata	English	German	French	Dutch	Swedish	**Fusion**
triples	436,808,402	124,994,586	42,630,107	39,438,426	36,924,058	37,942,711	558,597,215
sp-pairs	179,789,022	77,368,237	26,086,747	26,049,036	24,339,480	29,062,921	465,018,956
entities	45,649,373	17,576,432	5,020,972	5,429,710	3,638,110	5,862,430	66,822,365
dist. properties	166	1,412	598	1,052	979	415	2,292
avg. dist. predicates per entity	3.938	4.402	5.196	4.798	6.690	4.957	6.959

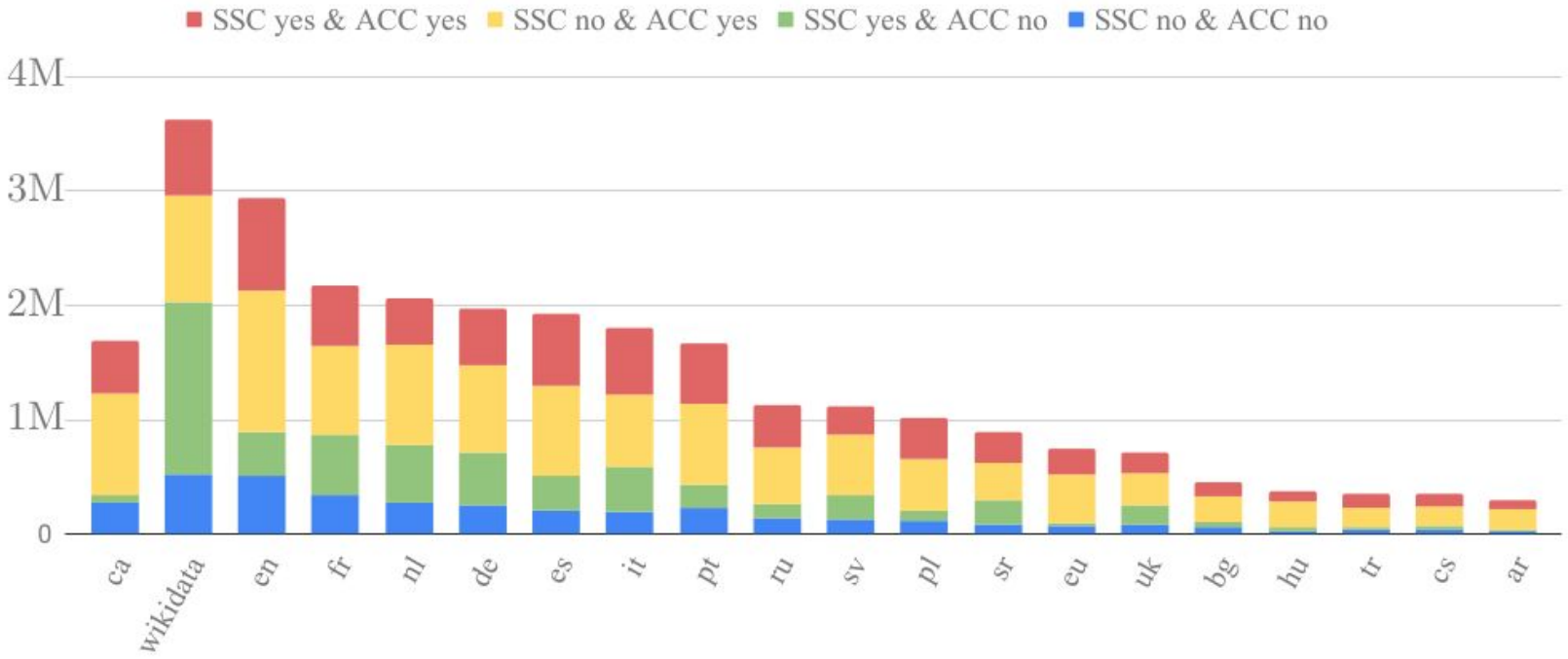
FlexiFusion Fusion

Class	Wikidata	English	German	French	Dutch	Swedish	**Fusion**
dbo:Person	4,197,564	1.757,100	627,353	491,304	188,025	62,814	4,612,463 (+9,88%)
only typed in source	2,246,879	350,137	26,896	6,498	4,506	316	
dbo:Company	188,107	70,208	25,208	14,889	4,446	3,291	209,433 (+11,34%)
only typed in source	80,443	4,038	834	548	89	121	
dbo:Location	3,952,788	839,987	406,979	276,096	449,750	1,480,627	5,293,969 (+33,93%)
only typed in source	2,451,306	27,430	25,804	14,979	101,422	33,425	
dbo:Animal	8,307	228,319	145	0	675,337	437	784,808 (+16,21%)
only typed in source	2,963	2,302	1	0	2,029	5	

FlexiFusion Enrichment Catalan DBpedia

	Original	Enriched	Boost
overall triples	4,631,162	31,200,104	6.74
distinct entities	981,795	981,795	1.00
properties distinct	111	2,275	20.50

FlexiFusion Enrichment Catalan DBpedia



https://tinyurl.com/dbpedia-databus-semantics-2019

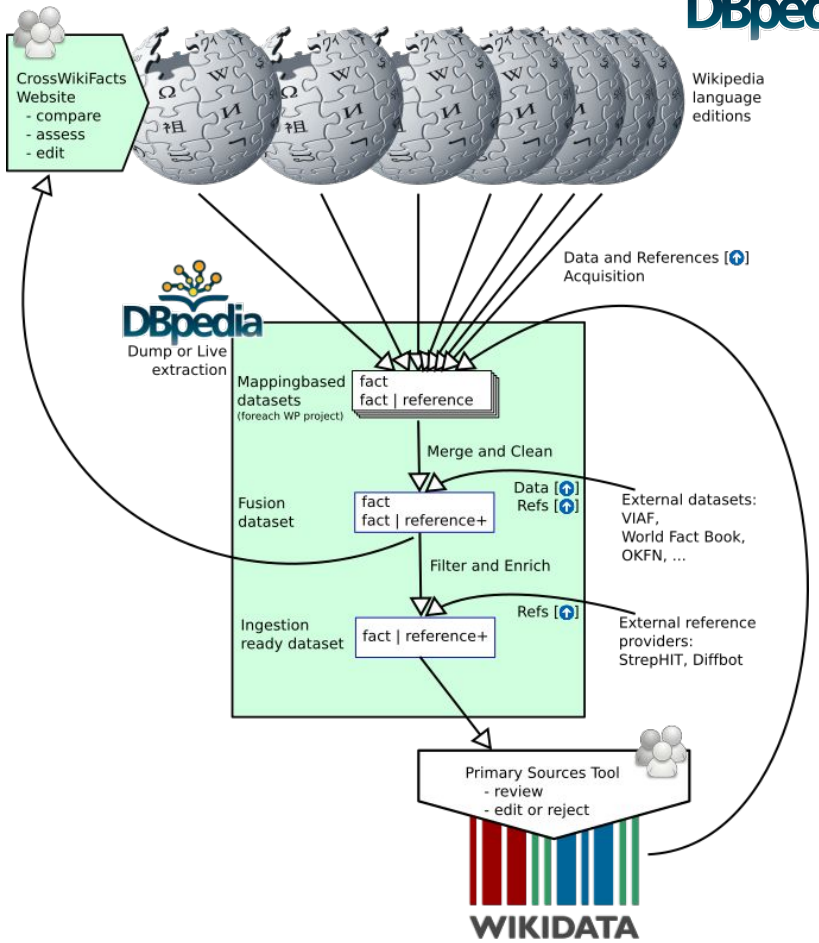
GlobalFactSync

https://meta.wikimedia.org/wiki/Grants:Project/DBpedia/GlobalFactSyncRE

Begin June 1st

Syncing facts between 140 Wikipedia language editions and Wikidata and external data

Wikipedia community to suggest 10 sync targets, e.g. Music Brainz



DBpedia - Strategic Agenda

Showcase presentations and discussions tomorrow @ DBpedia Day

Two needs and therefore two equal streams to maximise:

1. Databus file publishing is cheap and stable -> great opportunity to build a public information infrastructure maintained by libraries and public orgs
2. Symbiotic business relations
    - SLA's and re-seller (OpenLink)
    - DBpedia as SQL timbr (WPSemantix)


FIZ Karlsruhe
Leibniz-Institut für Informationsinfrastruktur
OPENLINK SOFTWARE
ontotext
eccenca
command your data!
TIB
LEIBNIZ-INFORMATIONSZENTRUM
TECHNIK UND NATURWISSENSCHAFTEN
UNIVERSITÄTSBIBLIOTHEK
huygens ing
imec
OPEN KNOWLEDGE
INTERNATIONAL
Fraunhofer
IAIS
KB
Koninklijke Bibliotheek
Nationale bibliotheek
van Nederland
diffbot
SPRINGER NATURE
SEMANTIC WEB COMPANY
linking data to knowledge
UNIWERSYTET EKONOMICZNY
19 26
W POZNANIU
NETWORK
INSTITUTE
SOUND AND VISION
Linked Open Data Initiative
GET YOUR
membership

Databus - Digital Factory Platform

Registry of files on the Web

- Global file warehouse
- Decentralised storage
- NoLD approach
- Storage is cheap
- File format doesn’t matter
  - PDF or PDF collection
  - CSV, XML, RDF

Databus - Digital Factory Platform

… but very strict metadata

- Provenance (who? - you!)
- License
- Private key signature, X509 (Trust)
- Granular dataset identity
  - Dataset is a set of files
- Versioning

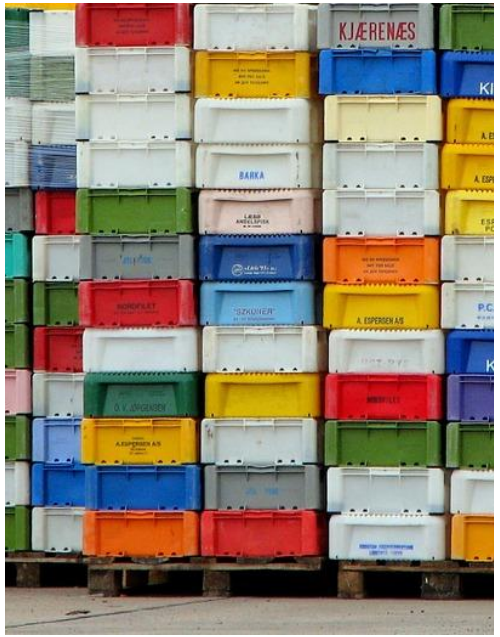
Rejected

Approved

https://tinyurl.com/dbpedia-databus-semantics-2019

Databus - Digital Factory Platform

Time versioned: 2018.04.10

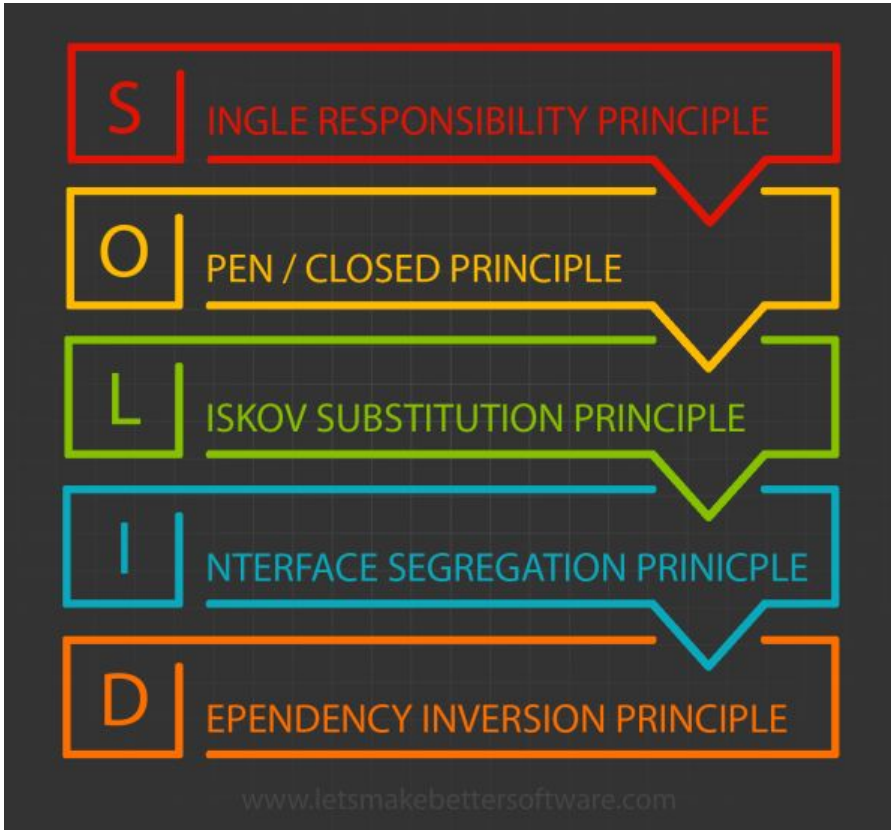


Build automation tool based on Maven

- Dataset Identity (ArtifactId)
  - Variance in content/format/compression
- Optimized for re-releasing the same files
  - 2/3 days to learn and setup the tool (once)
  - 10 minutes to publish an update

https://github.com/dbpedia/databus-maven-plugin

Databus - Digital Factory Platform



https://www.letsmakebettersoftware.com/2017/09/solid-4-interface-segregation-principle.html
https://deviq.com/interface-segregation-principle/

https://tinyurl.com/dbpedia-databus-semantics-2019

Czech DBpedia

Po směru hodinových ručiček počínaje obrázkem nahoře: Pražský hrad, výškové budovy na Pankráci, Malá Strana, Staroměstské náměstí, Karlův most, Národní divadlo

Vlajka Prahy

Znak Prahy

heslo:	**Praga Caput Rei publicae**[p. 1] (dříve *Praha matka měst*)
status:	hlavní město, zároveň kraj a statutární město
historická země:	Čechy
LAU 2:	CZ0100 554782
kraj (NUTS 3):	**Hlavní město Praha** (CZ010)
okres (LAU 1):	**Hlavní město Praha** (CZ0100)
ISO 3166-2:CZ:	CZ-PR
Státní poznávací značka:	A
poštovní směrovací číslo:	100 00–199 00
katastrální výměra:	496 km²
obyvatel:	1 294 513[1]
rozpočtové výdaje:	60 991 mil. Kč (2010)[2]
hustota zalidnění:	2581,7 obyvatel/km²
zeměpisná šířka:	50° 05′ s. š.
zeměpisná délka:	14° 25′ v. d.
nadmořská výška:	177–399 m n. m.
nejvyšší bod:	vrch Teleček mezi Sobínem a Chrášťany *(399 m n. m.)*
nejnižší bod:	hladina Vltavy u Suchdola *(177 m n. m.)*
počet městských obvodů:	10
počet městských *(správních)* obvodů:	22
počet městských částí:	57
počet místních částí:	146

DBpedia

DBpedia

Search DBpedia... | @ http://cs.dbpedia.org | česky, čeština

CATEGORIES

TYPES

GALLERY

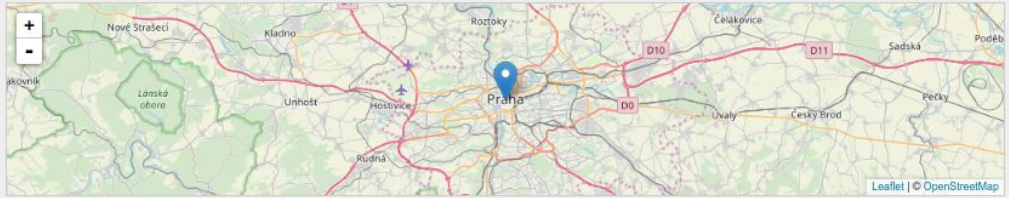
External Links

Born Here

Praha

Praha je hlavní a současně největší město Česka a 15. největší město Evropské unie. Leží mírně na sever od středu Čech na řece Vltavě, uvnitř Středočeského kraje, jehož je správním centrem, ale jako samostatný kraj není jeho součástí. Je sídlem velké části státních institucí a množství dalších organizací a firem. Sídlí zde prezident republiky, parlament, vláda, ústřední státní orgány a jeden ze dvou vrchních soudů.

cs.wikipedia.org/wiki/Praha



Property:	Value:
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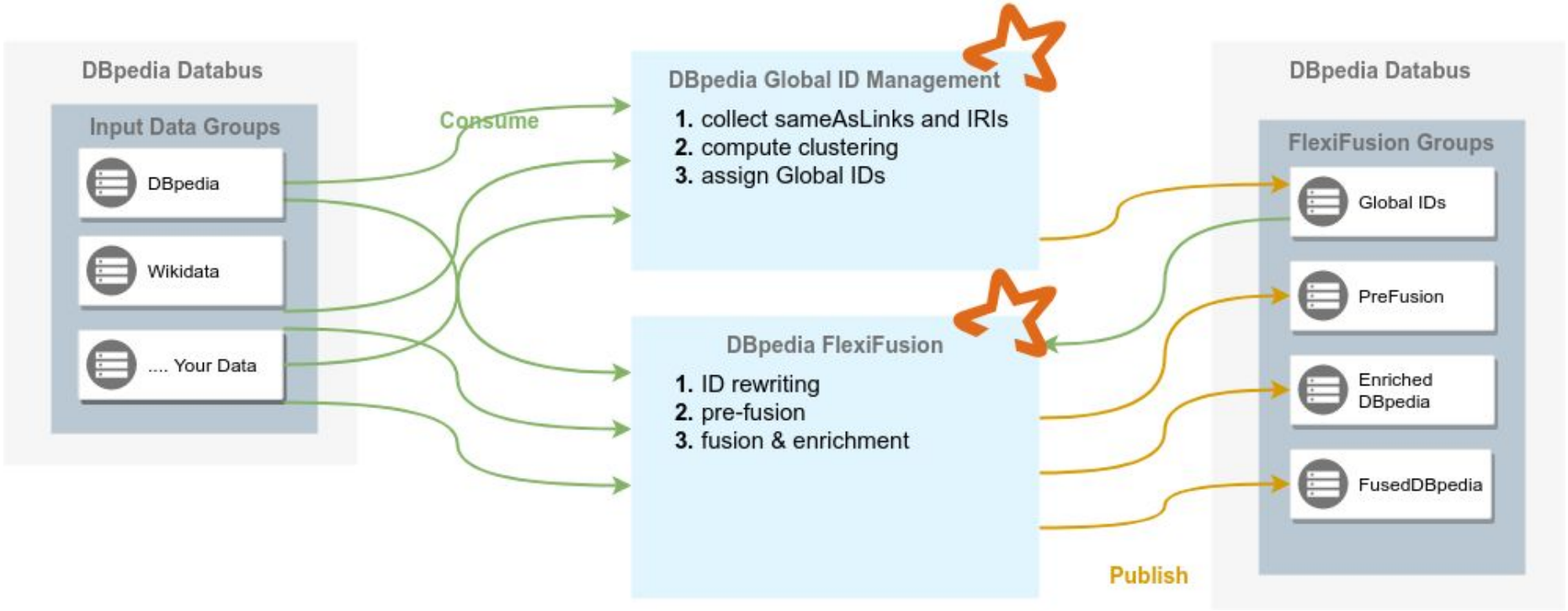
DBpedia FlexiFusion



https://tinyurl.com/dbpedia-databus-semantics-2019

Databus - Ontology/Dataset DNS

Ontologies are not suited for Linked Data publishing
https://www.w3.org/DesignIssues/LinkedData.html

- No versioning (intrinsic)
- HTTP IRI hosting breaks faster than files
- Content Negotiation can be implemented by the client
- Asymmetric Mappings and Links

We are re-standardizing Linked Data with the Databus:
https://databus.dbpedia.org/dbpedia/ontology/dbo-snapshots

Databus - Digital Factory Platform

Databus Maven Plugin:

- https://github.com/dbpedia/databus-maven-plugin
- Open Source
- software was code completed last week
- works for DBpedia (10k files published)
- Version 1.3-SNAPSHOT, hopefully stable in some week
- User manual is work in progress, but hey who reads them anyway?

Databus - Digital Factory Platform

https://databus.dbpedia.org

- hosts a public metadata repository
- Not exclusive to DBpedia data
- free to use, published metadata must be CC-0
- published files stay on publisher's server
  - Full control over access (HTTP-Auth) and license
- Repo-software is not open-source, we are running pilots in companies

DBpedia members