

## The SMS data infrastructure for science and innovation studies and evaluation

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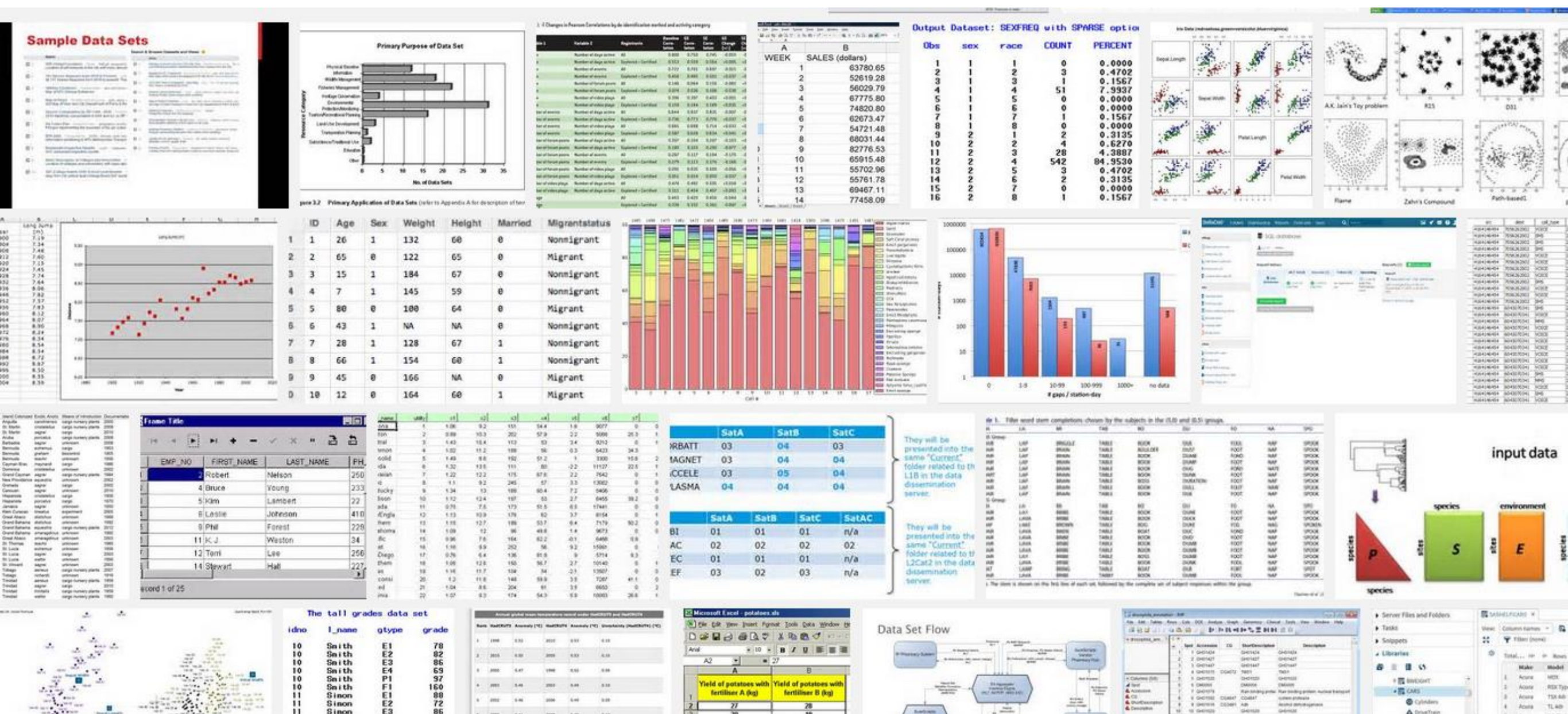
- RISIS = research infrastructure for science and innovation studies
- 14 countries, 2014-2018
- Mainly single datasets (Universities; companies; projects; careers; publications)
- SMS as integration and enrichment platform for open& non-open data
- Different views on integration and open data
  - Role of data based competition
- RISIS-2: 2019-2022
- OSIRIS

- Linking data:
  - entities (organizations, people, projects, ....)
  - Variables (staff – employees)
- Enriching data:
  - geo-location and geostatistical data
  - Ontologies and annotating
- Search, visualize and and retrieve

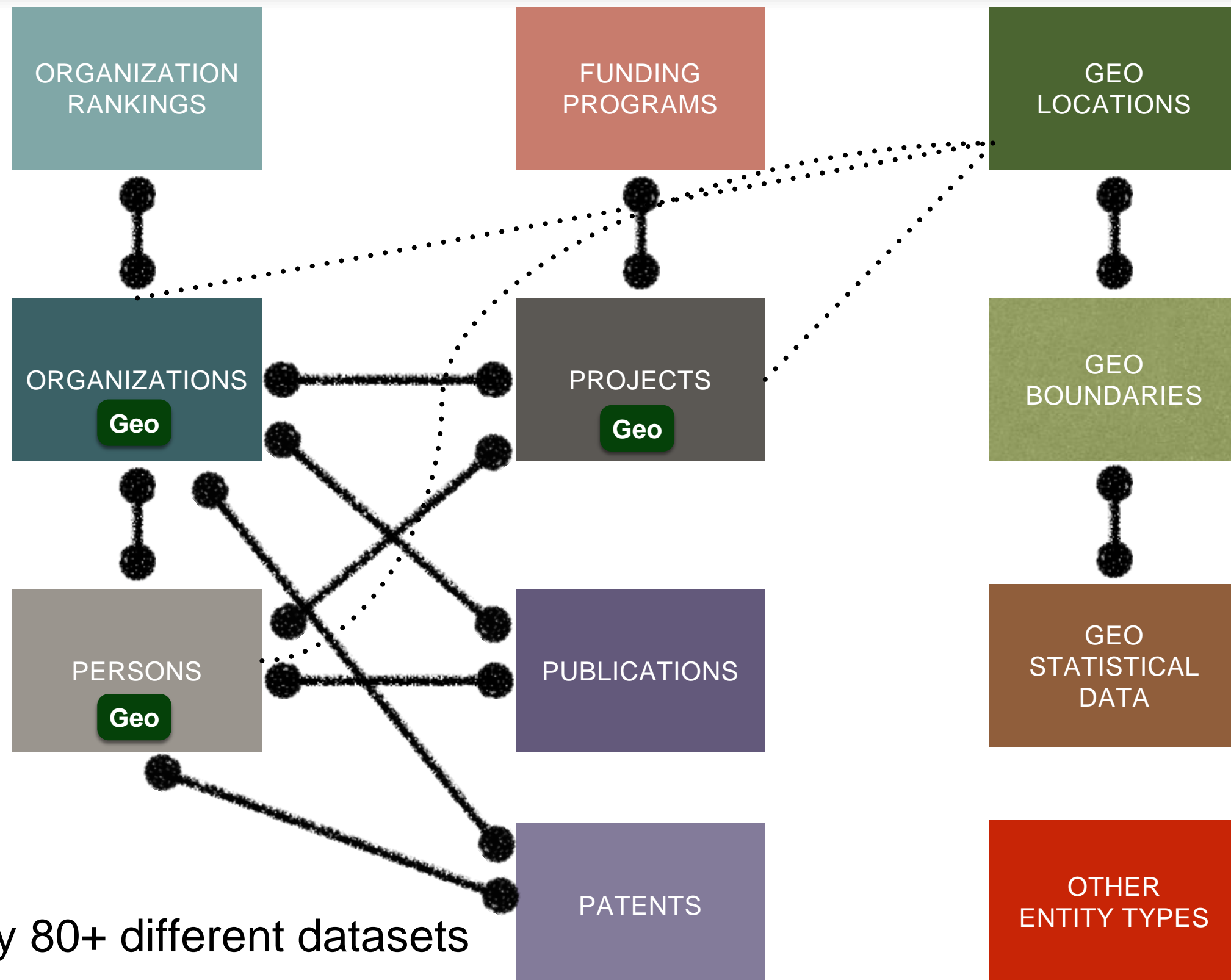


# BIG DATA: LINKING MANY HETEROGENEOUS DATA SETS

- A wide variety of research and policy questions
- Many heterogeneous data
- Linking and enriching -> bigger and richer and new studies



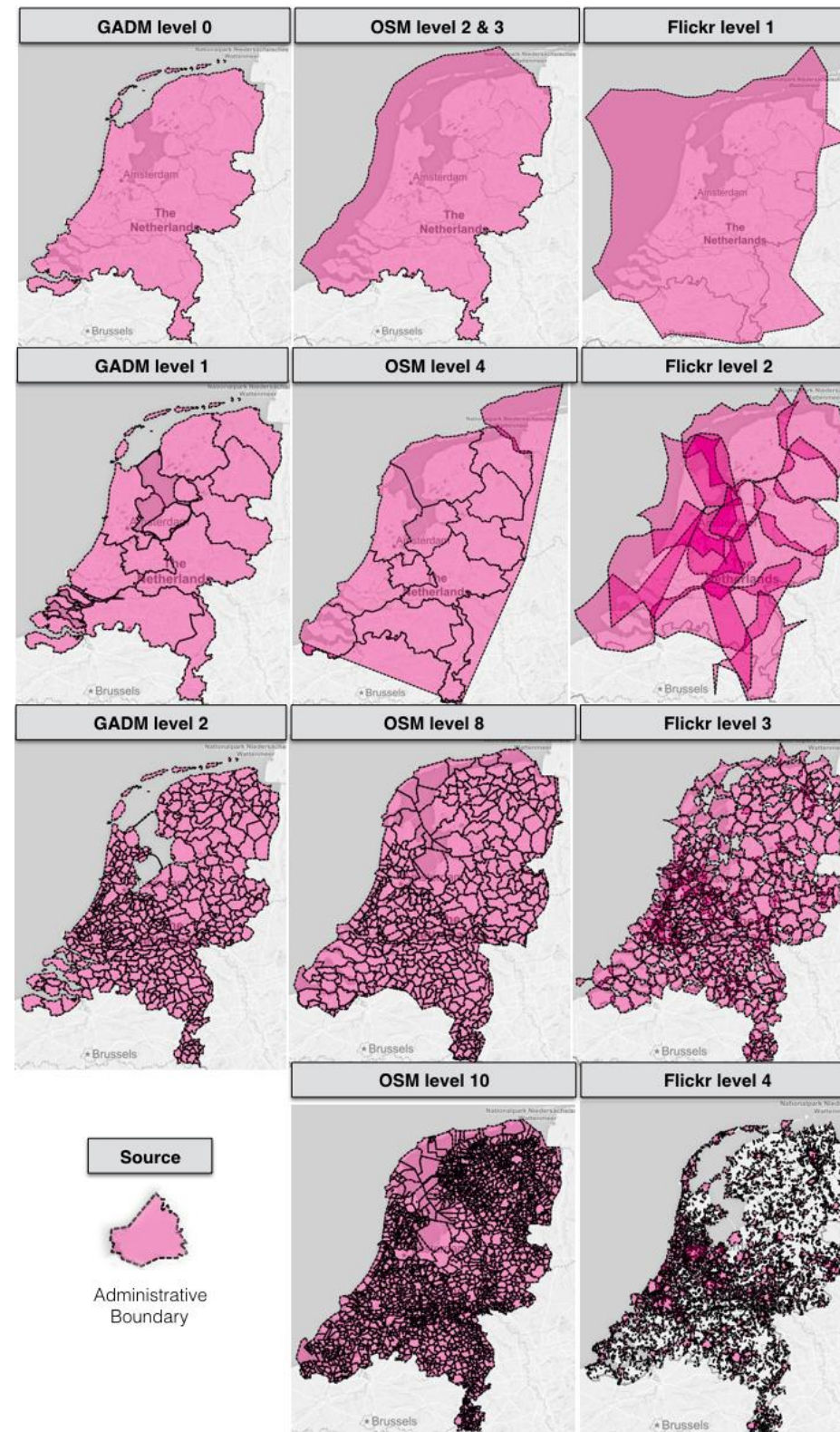
# THE LINKED DATA STORE



Currently 80+ different datasets



# ENRICHING: GEO-LOCATING / FLEXIBLE AREA BOUNDARIES



## Fomatted Address

De Boelelaan 1105, 1081 HV Amsterdam, Netherlands

Latitude

52.3337565

Longitude

4.8657203

## Coordinates to GADM Admin Boundaries

- 0 - Netherlands
- 1 -- Noord-Holland
- 2 --- Amsterdam

## Coordinates to OSM Admin Boundaries

- 2 - Nederland
- 3 -- Nederland
- 4 --- Noord-Holland
- 6 ---- Stadsregio Amsterdam
- 7 ----- Metropoolregio Amsterdam
- 8 ----- Amsterdam
- 9 ----- Zuid
- 10 ----- Amsterdam
- 11 ----- Zuideramstel

## Coordinates to Flickr Admin Boundaries

- 1 - Netherlands
- 2 -- North Holland, NL | South Holland, NL
- 3 --- Amstelveen, North Holland | Amsterdam, North Holland
- 4 ---- Amstelveen, North Holland | Amsterdam, North Holland
- 5 ----- Buitenveldert, Amsterdam, NH, NL

# ENRICHING: SEMANTIC ANNOTATING

- Many data are textual
- Ontologies for annotating
  - Discipline specific
  - Societal domain specific
- Annotating helps analyzing and helps linking to other data
- SMS annotation facility [SMS Data Store](#)

# DEMO 1: LINKING

- Question: Which characteristics of universities and of the environment correlate with the performance of universities?
- University characteristics
  - fields covered, budget, student population, grad/undergrad, staff/student (ETER)
- Environment
  - Other research intensive orgs in the environment - labor market, collaboration, funding (GRID)
  - Dynamic population: young, singles, culturally heterogeneous (CBS)
- Performance
  - Top cited papers (Leiden Ranking)

[SMS Data Store](#)



# RESULTS

- Four partial datasets including the relevant variables
- Linked through university **ID** and through selected **geo-boundary**

A	B	C	D	E	F
Netherlands					Correlation
percentage top cited papers	by	number R&D intensive organizations			0.55
number of top cited papers	by	number R&D intensive organizations			0.67
percentage top cited papers	by	variety of R&D intensive organizations			0.18
number of top cited papers	by	variety of R&D intensive organizations			0.48

- Test for the NL

- The produced query can be used for extending the scope / size -> full scale (multi level) study

The screenshot displays a SPARQL query editor interface. On the left, a panel titled 'GADM Level 2: City' shows a list of regions with checkboxes and counts: Hengelo (1), Venray (1), Binnenmaas (1), and Noordenveld (1). Below this, a 'Level' panel shows counts for '3' (12922), '1' (3070), and '2' (391). On the right, a list of regions is shown, including Vriescheloo, Rhederweg-West, Vriescheloo-Zuid, Oudeschans, Klein-Ulsda, and others. At the bottom, a SPARQL query is displayed, starting with various prefixes and a SELECT statement for distinct titles.

```

1 PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
2 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
3 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
4 PREFIX owl: <http://www.w3.org/2002/07/owl#>
5 PREFIX dct: <http://purl.org/dc/terms/>
6 PREFIX void: <http://rdfs.org/ns/void#>
7 PREFIX foaf: <http://xmlns.com/foaf/0.1/>
8 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
9 SELECT DISTINCT ?s ?title WHERE {
10 GRAPH <http://geo.risis.eu/cbs-nl> {
11 {
12 SELECT DISTINCT ?s WHERE {
13 GRAPH <http://geo.risis.eu/cbs-nl> {
14 ?s rdf:type <http://geo.risis.eu/vocabulary/cbs-nl/AdministrativeArea>

```

## DEMO 2: SEMANTIC ANNOTATION

- Question:
  - Do the funded projects address grand challenge A, societal issue B, or urgent innovation problem C?
  - What research fields contribute? Are projects at the research front?
  - Which of the programs a most active?
  - What researchers (country, institution, quality, etc)
- Strategy:
  - Upload the project dataset in SMS
  - Annotate the projects with the appropriate ontologies
  - Select, download and analyze: [SMS Data Store](#)

# ANNOTATING

1. In the data store, click 'annotate'
2. Select the dataset to be annotated
3. Select the ontologie(s) to be included
4. Select the text field
5. Start annotating

The screenshot shows the 'Annotate dataset' form in the SMS Platform. The form has a blue header with the SMS Platform logo and navigation tabs: SMS Platform, Metadata Editor, and Datasets. The main title is 'Annotate dataset'. Below it, there are three main sections: 1. '\* Dataset' with a dropdown menu 'Select a Dataset'. 2. 'URI of the resource types' with a text input field containing the placeholder 'URI of the resource types to be annotated / leave empty for all resources'. 3. '\* URI of the property used for annotation' with a text input field containing the placeholder 'URI of the property for which the values are annotated'. At the bottom, there is a question 'Store annotations in a new dataset?' with two radio buttons: 'No, just enrich the original dataset' (selected) and 'Yes, create a new dataset'. A large blue button labeled 'Annotate Dataset' is at the bottom right.

The screenshot shows the 'Annotate dataset' results page. At the top, it says 'Dataset: Web Of Science (WoS) Dataset -> [Annotated] Web Of Science (WoS) Dataset' and 'Property used: http://wos.risis.eu/vocabulary/AB'. Below this is a progress bar showing '27%' completion. A message states 'Enriched 44093 out of 157866 items' with a 'refresh' button. The main content area displays a text snippet from a resource: 'http://wos.risis.eu/resource/WOS\_000296044200029'. The text describes the RASA (Retrosynthesis-based Assessment of Synthetic Accessibility) method. Below the text is a word cloud containing various terms related to chemistry, biology, and data science, such as 'neural network', 'chemical compounds', 'proteins', 'ligand', 'simulation', 'GABA', 'XML', 'PCA', 'drug-like', 'algorithm', '2D', 'CYP450', 'optimization', 'scoring function', 'amino acid', 'substrates', 'Monte Carlo', 'active site', 'antibiotic', 'secondary structures', 'electronic document management', 'decision procedure', 'genetic algorithm', 'Outliers', 'Boolean', 'dynamics', 'Integers', 'virtual screening', 'mutations', 'genes', 'semantic similarity', 'molecular dynamics', 'finite element method', 'preconditioner', 'Hamming codes', 'isozymes', 'Manifold learning', 'eigenfrequencies', 'electrostatics', 'cell cycle', 'peptides', 'Human Immunodeficiency Virus (HIV)', 'HIV-1', 'microarray', 'heuristic promiscuity', 'Proteases CYP3A4', 'M3', 'gene', 'John Wiley & Sons', 'SS', 'matrix', 'DCN', 'corpus', 'tree', 'gait', 'ROC', 'hydrophobic', 'multi', 'memory', 'fingertips', 'Electroencephalography', 'antibiotic', 'secondary structures', 'electronic document management', 'decision procedure', 'genetic algorithm', 'Outliers', 'Boolean', 'dynamics', 'Integers', 'virtual screening', 'mutations', 'genes', 'semantic similarity', 'molecular dynamics', 'finite element method', 'preconditioner', 'Hamming codes', 'isozymes', 'Manifold learning', 'eigenfrequencies', 'electrostatics', 'cell cycle', 'peptides', 'Human Immunodeficiency Virus (HIV)', 'HIV-1', 'microarray', 'heuristic promiscuity', 'Proteases CYP3A4', 'M3', 'gene', 'John Wiley & Sons', 'SS', 'matrix', 'DCN', 'corpus', 'tree', 'gait', 'ROC', 'hydrophobic', 'multi', 'memory', 'fingertips', 'Electroencephalography'.

# SELECT ONTOLOGY TERMS

SMS Platform
 Metadata Editor
 Datasets

**Selected Properties**

- Administrative Data
- Participants
- Annotations
  - ☒ NER Entity Types
  - ☒ NER Entities

Search

**39 NER Entity Types** = ChemicalSubstance

ChemicalSubstance 976

ChemicalCompound 927

chem

**7,035\* NER Entities**

= CO2,biomass,climate change,sustainability,carbon dioxide,greenhouse gas,energy efficiency,renewable energy,greenhouse gases,biodegradable,wastewater,solar energy,global warming

CO2 201	Europe 139	cells 114	EU 99	carbon 69	proteins 64
protein 62	chemistry 57	cancer 57	biomass 53	catalysts 52	
SME 50	species 49	climate change 49	brain 47	nanoparticles 45	
metabolism 45	dynamics 44	hybrid 43	genes 42	substrate 41	
methane 41	sustainability 40	oxygen 40	enzymes 38	bacteria 38	

Search

**339 Resources of type SignedGrantAgreement in Cordis H2020 Projects Dataset 2014-2020 (2016-12-22)**

- Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle
- Greenhouse Gas Mitigation through Advanced Nitrogen Removal Technology
- Biogas-fired Combined Hybrid Heat and Power Plant
- Turning waste from steel industry into a valuable low cost feedstock for energy intensive industry
- Full scale demonstration of energy positive sewage treatment plant concepts towards market penetration
- Not all minds that wander are lost: A neurocognitive test of mind-wandering state's contribution to human cognition.
- Biochemical link between plant volatile organic compound (VOC) emissions and CO2 metabolism - from sub-molecular to ecosystem scales
- Guaranteed fully adaptive algorithms with tailored inexact solvers for complex porous media flows
- Hybrid Materials for Artificial Photosynthesis
- New constraints on the Amazonian carbon balance from airborne observations of the stable isotopes of CO2
- Building up a brain: understanding how neural stem cell fate and regulation controls nervous tissue architecture
- Production technology to achieve low Cost and Highly Efficient photovoltaic Perovskite Solar cells
- Preparing R2 extension to 300mm for BCD Smart Power
- Developing the next generation Macro-Algae based biofuels for transportation via advanced bio-refinery processes
- New technology and strategy for a large and sustainable deployment of second generation biofuel in rural areas
- SUNlight-to-LIQUID: Integrated solar-thermochemical synthesis of liquid hydrocarbon fuels
- Development of a fuel flexible and highly efficient ultra low emission residential-scale boiler with coupled heat recuperation based on flue gas condensation
- Low Emissions Intensity Lime and Cement
- Sustainable production of next generation biofuels from waste streams
- Southern Ocean and Antarctic Climatic Phasing:Tephrochronological Correlation of Southern Ocean Marine Records and Antarctic Ice-cores

17 Page(s): 1 2 3 4 5 show all

```

1 PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
2 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
3 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
4 PREFIX owl: <http://www.w3.org/2002/07/owl#>
5 PREFIX dct: <http://purl.org/dc/terms/>
6 PREFIX void: <http://rdfs.org/ns/void#>
7 PREFIX foaf: <http://xmlns.com/foaf/0.1/>
8 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
9 SELECT DISTINCT ?s ?title WHERE {
10   GRAPH <http://risis.eu/cordisH2020> {
11     {

```



 SMS Platform Metadata Editor Datasets petervdbes

**VU**  **VRIJE  
UNIVERSITEIT  
AMSTERDAM**

Faculteit  
der Sociale  
Wetenschappen

ADDED

Selected Properties

Administrative Data

Participants

Annotations

NER Entity Types

NER Entities

Search

39 NER Entity Types = ChemicalSubstance

ChemicalSubstance 976

ChemicalCompound 927

chem

7,035\*

NER Entities

= CO2,biomass,climate change,sustainability,carbon dioxide,greenhouse gas,energy efficiency,renewable energy,greenhouse gases,biodegradable,wastewater,solar energy,global warming

CO2 201

Europe 139

cells 114

EU 99

carbon 69

proteins 64

protein 62

chemistry 57

cancer 57

biomass 53

catalysts 52

SME 50

species 49

climate change 49

brain 47

nanoparticles 45

metabolism 45

dynamics 44

hybrid 43

genes 42

substrate 41

methane 41

sustainability 40

oxygen 40

enzymes 38

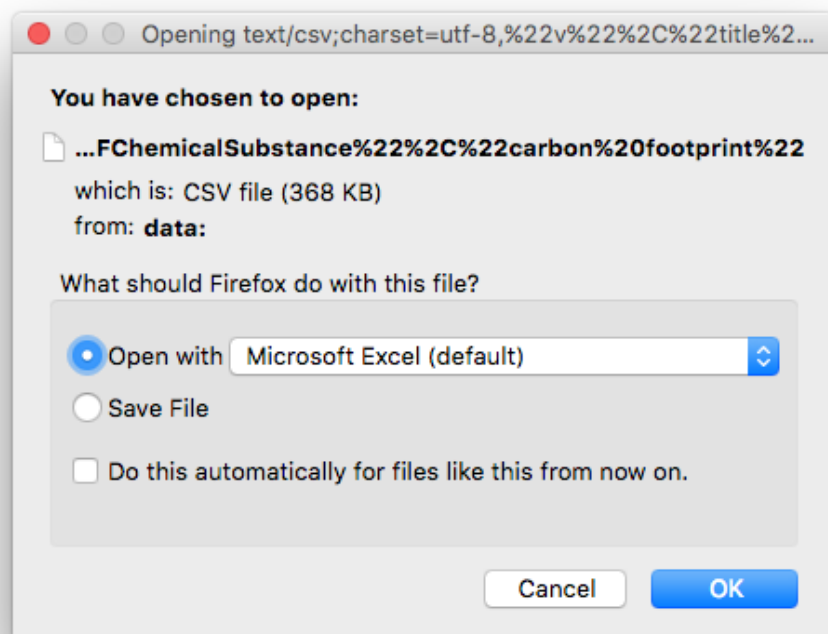
bacteria 38

Search

339 Resources of type SignedGrantAgreement in Cordis H2020 Projects Dataset 2014-2020 (2016-12-22)

Title	1_Type	2_SurfaceForm
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	metabolism
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	CO2
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	tricarboxylic acid cycle
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	biomolecules
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	anhydride
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	reducing agents
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	catalysts
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	endeavour
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	biochemical evolution
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	Misc	biochemistry
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalCompound	metabolism
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalSubstance	metabolism
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalCompound	CO2
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalSubstance	CO2
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalCompound	tricarboxylic acid cycle
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalSubstance	tricarboxylic acid cycle
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalCompound	biomolecules
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalSubstance	biomolecules
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalCompound	anhydride
Towards a Self-Amplifying Carbon-Fixing Anabolic Cycle	ChemicalSubstance	anhydride

# DOWNLOAD



Production of Reactive Particulates		
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalCompound	4-
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalSubstance	4-
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalCompound	solar energy
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalSubstance	solar energy
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalCompound	carbon footprint
High Temperature Solar-Heated Reactors for Industrial Production of Reactive Particulates	ChemicalSubstance	carbon footprint

17 Page(s): 1 2 3 4 5 show all

```

1 PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
2 PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
3 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
4 PREFIX owl: <http://www.w3.org/2002/07/owl#>
5 PREFIX dcterms: <http://purl.org/dc/terms/>
6 PREFIX void: <http://rdfs.org/ns/void#>
7 PREFIX foaf: <http://xmlns.com/foaf/0.1/>
8 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
9 SELECT DISTINCT ?s ?title ?ldr_ap1_Type ?ldr_ap2_SurfaceForm WHERE {
10 GRAPH <http://risis.eu/cordish2020> {
11 {
12 SELECT DISTINCT ?s WHERE {
13 GRAPH <http://risis.eu/cordish2020> {
14 ?s rdf:type <http://risis.eu/cordish2020/vocab/SignedGrantAgreement> .

```



## RESULTS

The screenshot shows a Microsoft Excel application with a CSV file named "jo9ytHZn.csv" open in Read-Only mode. The spreadsheet displays data from a CSV file with the following structure:

	A	B	C	D
1	v	title	propsForAnalysis.1_Type	propsForAnalysis.2_SurfaceForm
2	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	biocompatible
3	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	nanoparticles
4	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	short interfering RNA
5	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	siRNA
6	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	T cells
7	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	Type 2
8	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	T helper cell
9	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	Th2
10	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	transcription factor
11	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	GATA
12	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	cytokines
13	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	inflammatory diseases
14	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	asthma
15	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	cells
16	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	nucleic acid
17	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	naive T cells
18	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	molecular weight
19	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	polyethylenimine
20	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	transferrin
21	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	chemistry
22	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	mouse
23	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	allergic asthma
24	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	lung
25	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	liver
26	<a href="http://risis.eu/cordish2020/resource/">http://risis.eu/cordish2020/resource/</a>	Biocompatible nanoparticles for T cell	<a href="http://dbpedia.org/ontology/Misc">http://dbpedia.org/ontology/Misc</a>	tetramers

An SQL query window is overlaid on the right side of the Excel interface, displaying the following query:

```
SELECT DISTINCT ?s WHERE {
    GRAPH <http://risis.eu/cordishH2020> {
        ?s rdf:type <http://risis.eu/cordishH2020/vocab/SignedGrantAgreement> .
    }
}
```



# OTHER OPTIONS

SMS Platform
 Metadata Editor
 Datasets

### Selected Properties

**Administrative Data**

- ☐ Acronym
- ☐ EndDateYear
- ☐ FundingScheme/Label
- ☒ Program/ShortTitle
- ☐ StartDateYear
- ☐ Status
- ☐ Topic/Label
- ☐ TotalCost

**Participants**

- ☐ Coordinator Country
- ☐ GRID: Participant's Org Type
- ☐ Participant Country
- ☒ Participant GRID-GADM: Level 2
- ☒ Participant's Org Type
- ☐ Participant\_Abbrev

**67 Participant GRID-GADM: Level 2**

**5 Participant's Org Type**

- ☐ Higher or Secondary Education Establishments **211**
- ☐ Private for-profit entities (excluding Higher or Secondary Education Establishments) **190**
- ☐ Research Organisations **122**

**35 Program/ShortTitle**

- ☐ MSCA Mobility **96**
- ☐ Mainstreaming SME support **90**
- ☐ European Research Council (ERC) **62**
- ☐ Energy **30**

**355 Resources of type SignedGrantAgreement in Cordis H2020 Projects Dataset (2016-12-22)**

Title	1_Type	2_Surface
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	biocompa
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	nanoparti
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	short inte
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	siRNA
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	T cells
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	Type 2
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	T helper c
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	Th2
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	transcript
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	GATA
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	cytokines
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	inflamma
Biocompatible nanoparticles for T cell targeted siRNA delivery as novel asthma therapy	Misc	asthma

# RESULTS

- Portfolio described in terms of social issues & fields of research
- Further analysis (through linking with other datasets)
  - Characteristics of the participants
  - Regional coverage of portfolio
  - Change of portfolio's over time
  - Possibility to compare the selected with the rejected applications
- Ongoing: extending ontologies

# LESSONS

- Data linking and enrichment is promising (and technologies are improving)
- Data accessibility
  - Regulation (privacy), competition, proprietary
- Neutral facility