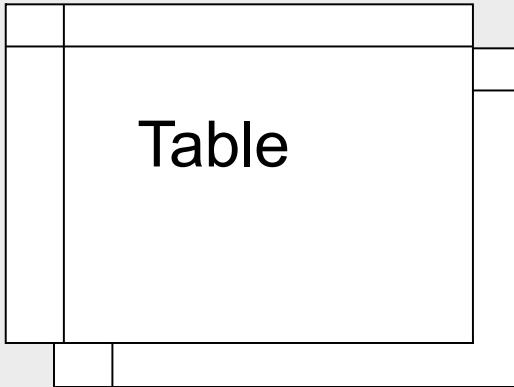


# Table Joining Service Proof Of Concept

Pieter Bresters,  
EFGS conference Paris, 2016



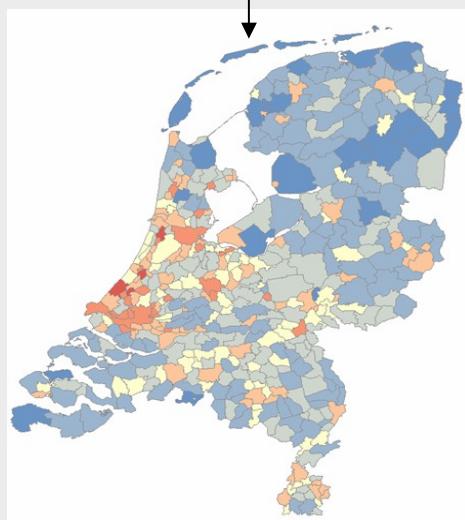
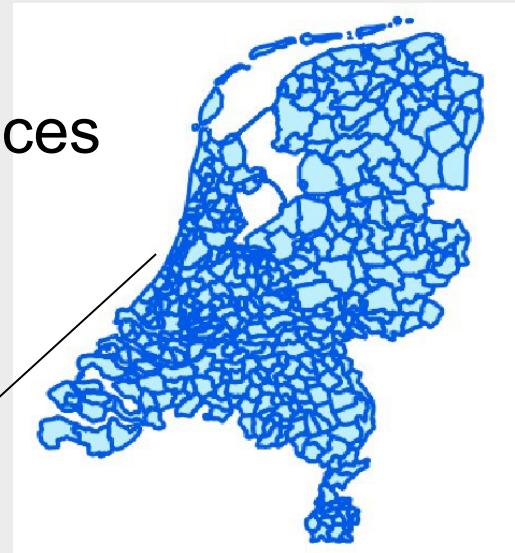
# Table Joining Service



Table



Geoservices



# Content

- Objective
- background
- Organization
- Functionality
- Source data
- Result POC
- Impact analyses
- What to do
- Discussion



# Objective

- Proof the concept in PDOK environment
  - Convince management
  - Stimulate EU implementation
- Functionality assessment
- Impact analyses

# Background

- Eurostat Grant 2013: positive business case NL
- [Http://www.elfproject.eu](http://www.elfproject.eu)
- INSPIRE: themes without geometry
- Large amount of tables → maps on demand
- Actuality
- UN-GGIM: Cooperation NMA's en NSI's
- Eurostat Grant 2016

# Organization

nr	Action	Actor
1	Project management	CBS
2	Define functionality	CBS, RIVM, RVO
3	Deployment	Kadaster (PDOK)
4	Adjust existing TJS software	Kadaster , Geonovum
5	Realise a TJS client	Kadaster
6	Technical test	Kadaster, Geonovum
7	User test	CBS, RIVM, RVO
8	Incorporate test results	Kadaster, Geonovum
9	Documentation	Kadaster, Geonovum
10	Impact analysis	Kadaster, Geonovum, CBS

# Functionality

	POC	scenarios		
Functionality		1	2	3
Table input from table services via URL (Odata or SDMX)	+	+	+	+
Geometry input via WFS	+	+	+	+
Join to create output as a temporary geoservice: WFS, WMS	+	+	+	+
Input table format CSV via upload	+	+	+	+
Output in a viewer (identify, classification, legend, zooming, pan, mouse over)	+	+	-	-
Output to other formats: geojson, kml (standard in Geoserver)	+	+	+	+
Key code selection from available attributes	-	+	-	+
Live pick list creation from Odata tables and geoservices	-	+	-	-
Warning for mismatches or wrong matches	-	OGC?	OGC?	+
Normalisation to area or population	-	+	-	-
Options for 1:n relations	-	OGC?	OGC?	-
Meta data link to input	-	+	-	+
Input from other table formats: xls, sav	-	+	-	-
Input from other formats for geometry via upload: shape, geojson, kml	-	+/-	-	+/-
Support authorisation	-	+/-	-	-

# Source data

Tables:

- <http://opendata.cbs.nl/>
- <http://ec.europa.eu/eurostat/web/sdmx-web-services>
- Uploaded csv

Geometry:

- <http://geodata.nationaalgeoregister.nl/cbsgebiedsindelingen/wfs?>

<http://ec.europa.eu/eurostat/web/sdmx-web-services>

The screenshot shows the Eurostat SDMX Web Services page. At the top right are links for "Sign In | Register" and a user icon. Below that is a navigation bar with "Legal notice | RSS | Cookies | Links | Contact" and a language dropdown set to "English". A search bar with placeholder text "Type a keyword, a code, a title..." and a magnifying glass icon is also present.

The main content area has a breadcrumb trail: European Commission > Eurostat > SDMX Web Services > About Eurostat data. A horizontal menu bar includes "News", "Data", "Publications", "About Eurostat", and "Help". The "Data" menu is currently active, indicated by a dark background and white text.

In the "SDMX WEB SERVICES" section, links include "About this service", "RSS feed", "+ About SDMX", "+ Getting started", "+ Potential uses", "+ SDMX queries tutorial", and "Frequently asked questions (FAQ)".

The "ABOUT EUROSTAT DATA" section contains a blue header "Brief explanation about the Eurostat data and the formats of data". Below it, text explains that Eurostat data contains many indicators on the European Union and the Euro area, and that the database always has the latest version of datasets. It defines a "Data Structure Definition (DSD)" as metadata describing dataset structure and organization. It also mentions that DSD details can be found in the "About this service" section under "Details about DSD".

Links for "SOAP SDMX 2.0", "SOAP SDMX 2.1", and "REST SDMX 2.1" are provided.

A section titled "When data is updated?" states that datasets are updated twice a day at 11:00 and 23:00. A "SEE ALSO" sidebar lists "EUROSTAT database" and "EUROSTAT SDMX info space".

The footer features five columns with links: "News" (News releases, Release calendar), "Data" (Database, Statistics by theme, Statistics A to Z), "Publications" (Statistics Explained, Recent publications), "About us" (Overview, How to find us, Contact), and "Opportunities" (Calls for tenders, Grants). Social media icons for YouTube and Twitter are also present. The footer also includes the European Commission logo and the eurostat logo.



# <http://opendata.cbs.nl/ODataApi/odata/70262ned/TypedDataSet?>

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```



# Geoservice:

<http://geodata.nationaalgeoregister.nl/cbsgebiedsindelingen/wfs?>

**NGR National Georegister**

Home Actueel Catalogus PDOK Over NGR Voor ontwikkelaars

Zoeken >> Zoekresultaten >> Kaart

cbsgebiedsindelingen

Met als resultaat:  Online kaarten  Downloadbare data  Data op aanvraag Toon uitgebreide zoekcriteria

Een WMS laag toevoegen

Search WMS  or add by URL

Voorbeeld kaartaag

Maak verbinding

Ondergrond

Kaartlagen

Lagenbeheer

Voeg toe

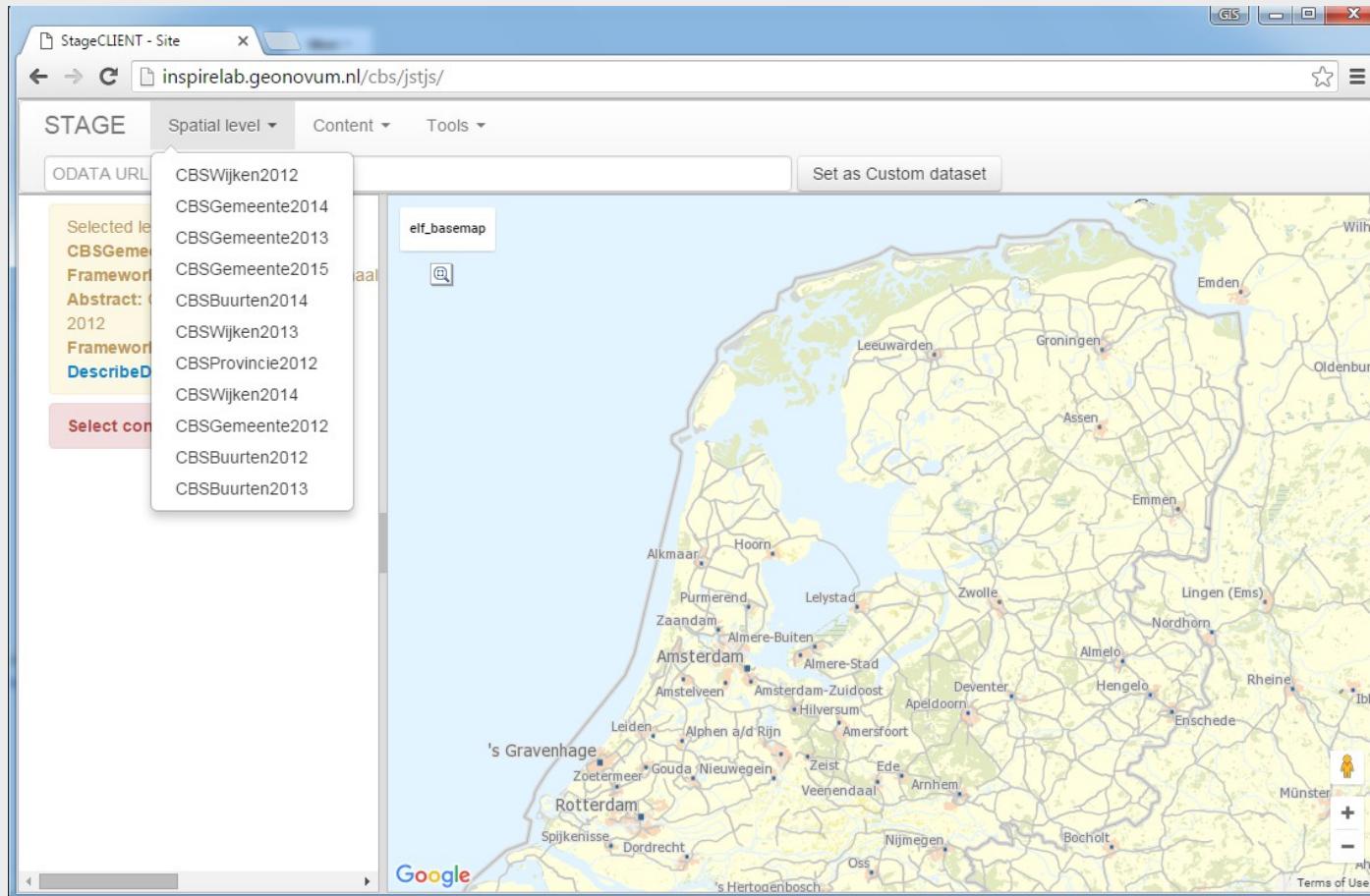
Legenda

20 km 10 mi



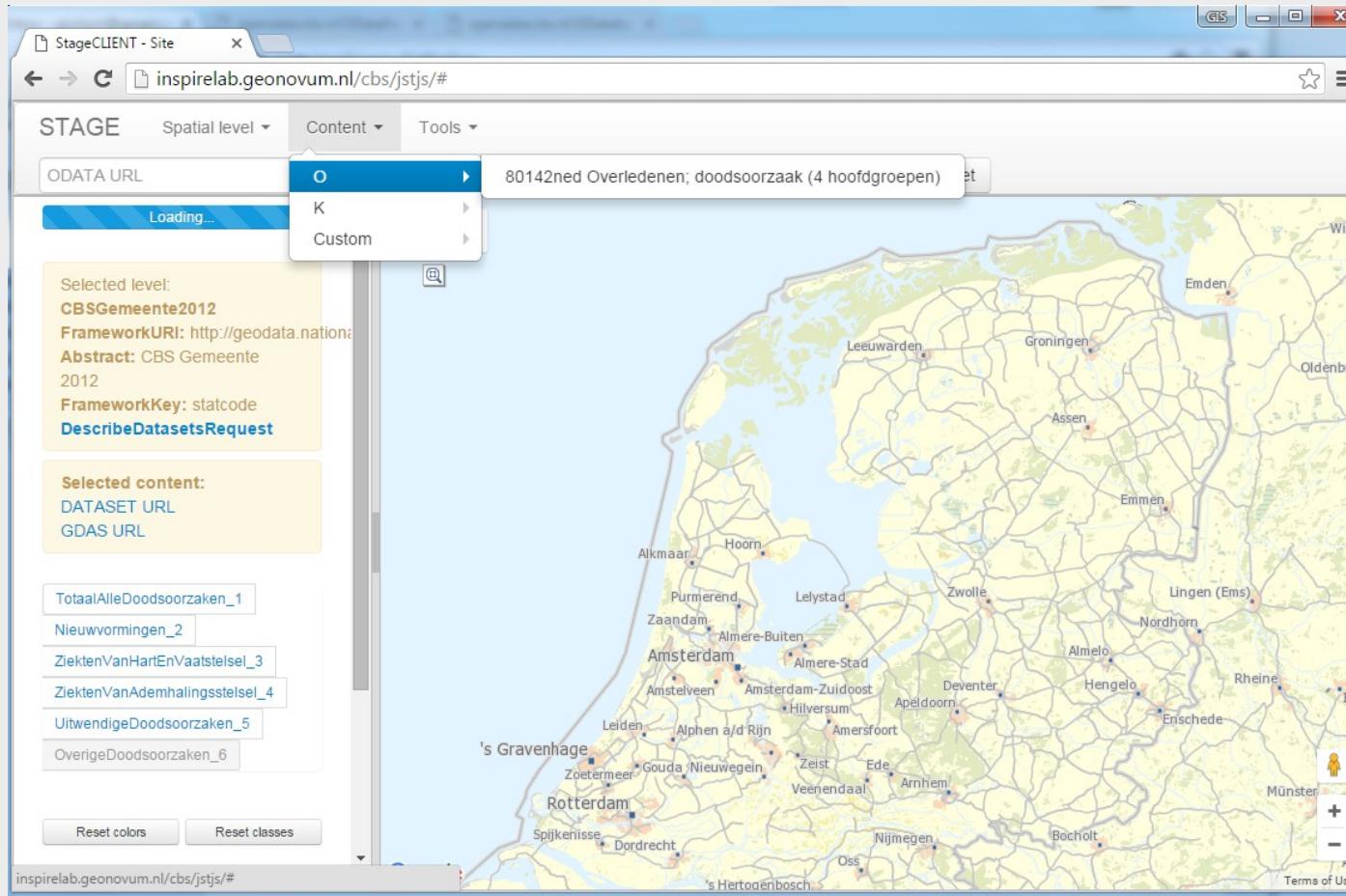
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<http://inspirelab.geonovum.nl/cbs/jstjs/>



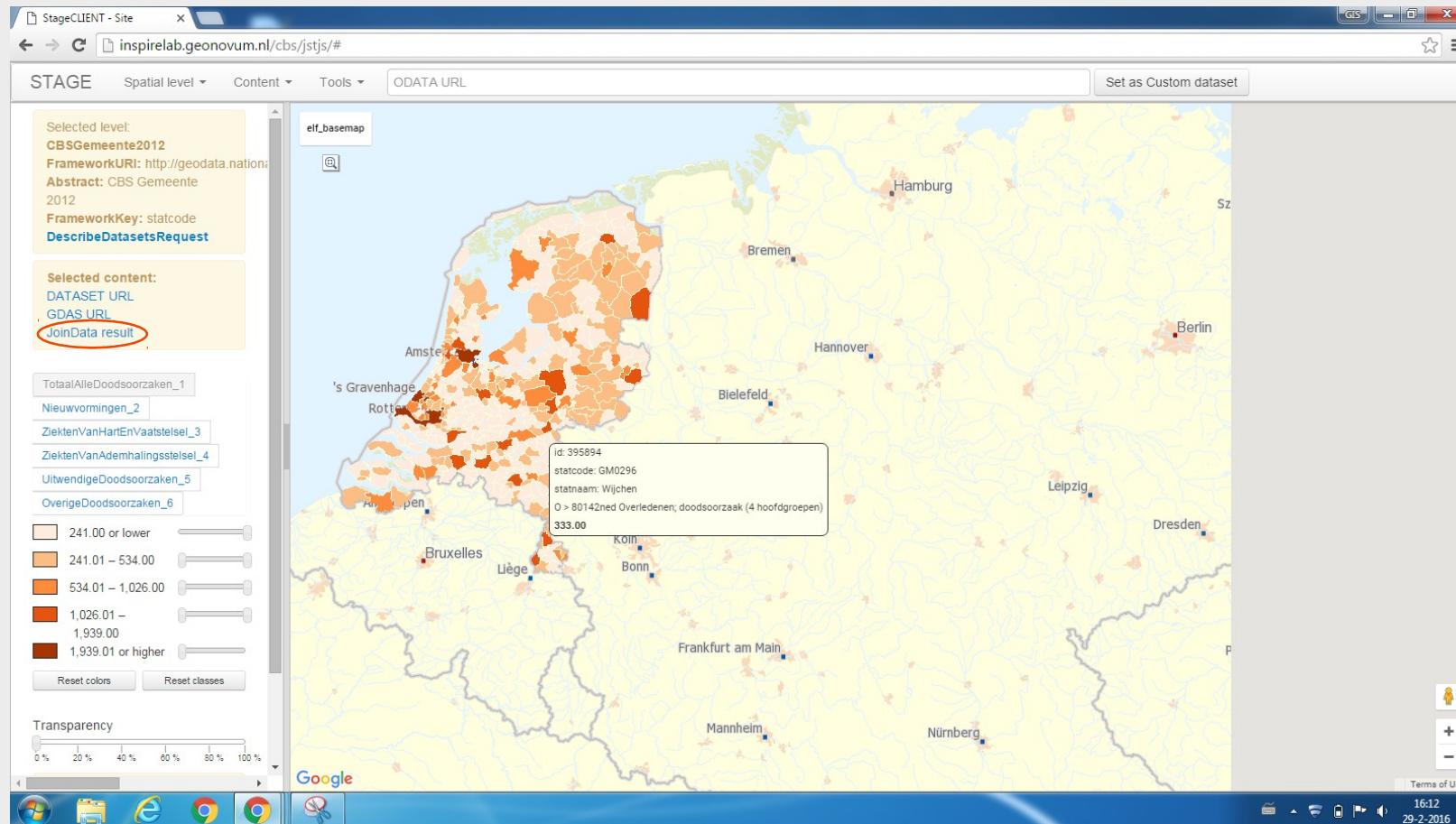
# Result

<http://inspirelab.geonovum.nl/cbs/jstjs/>



# Result

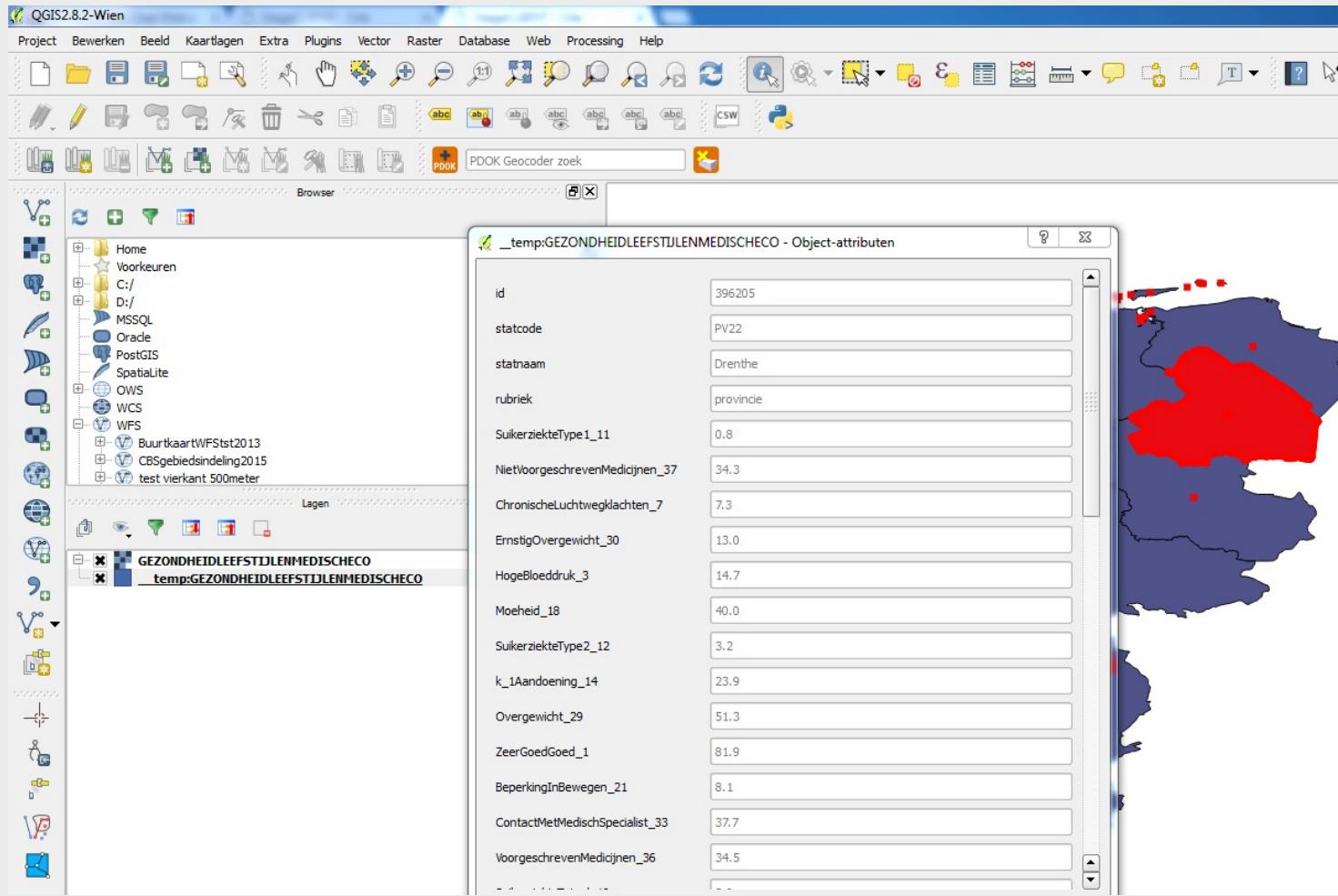
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# Result

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# Result in Qgis



# Result impact analyses

- Hardware
- Software
- Data
- Organizational
- Financial



# Impact financial Dutch case

Scenario	Once	Each year
Scenario 1	k€ 114	k€ 70 to 90
Scenario 2	k€ 54	k€ 57 to 76
Scenario 3	k€ 50	k€ 32

# What to do

- Seek for Financial support
- Make scenario choice
- Implementation within PDOK
- Promote implementation in Europe
- Improve OGC TJS standard
- Harmonize for INSPIRE



# Conclusion

- It works
- There is a discussion on scenario choice
- European approach is needed



# Discussion

- Scenario choice?
- European Implementation?

