

# Infrastructure and technologies

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## Infrastructure and technologies

- Grid statistics Netherlands 100mx100m
- Metadata
- Data distribution
- Preliminary conclusions
- Methods for geographical selection and reporting

# Populations distribution The Netherlands

100m x 100m grid, change 2010 - 2000

- Demo

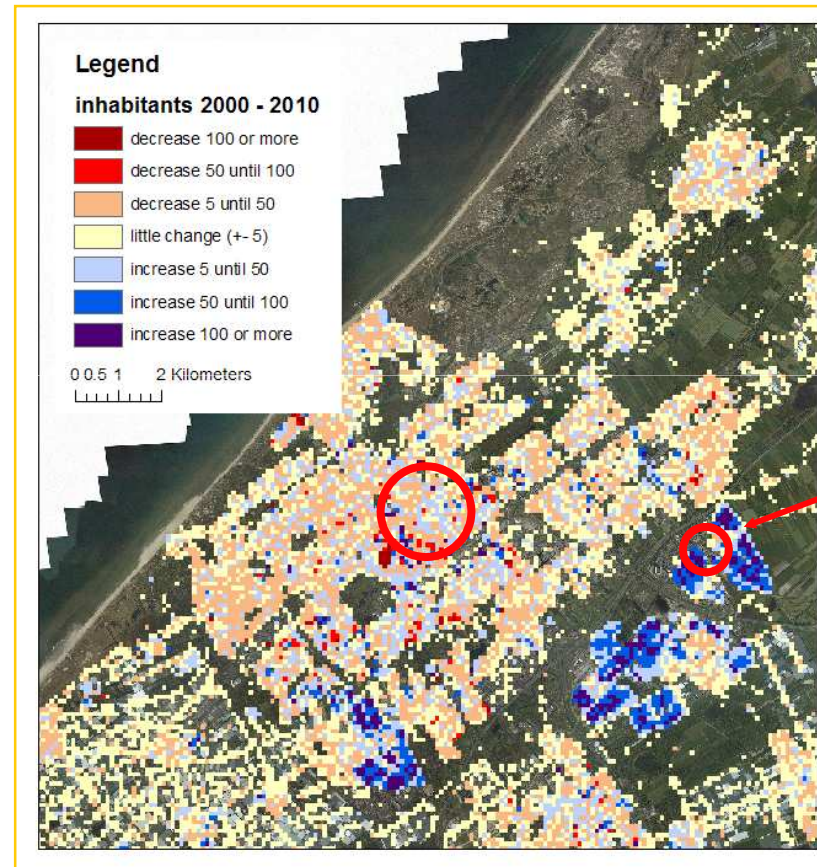
# Population distribution The Netherlands

100m x 100m grid, change 2000 - 2010



# Population distribution The Netherlands

## 100m x 100m grid, change 2000 - 2010

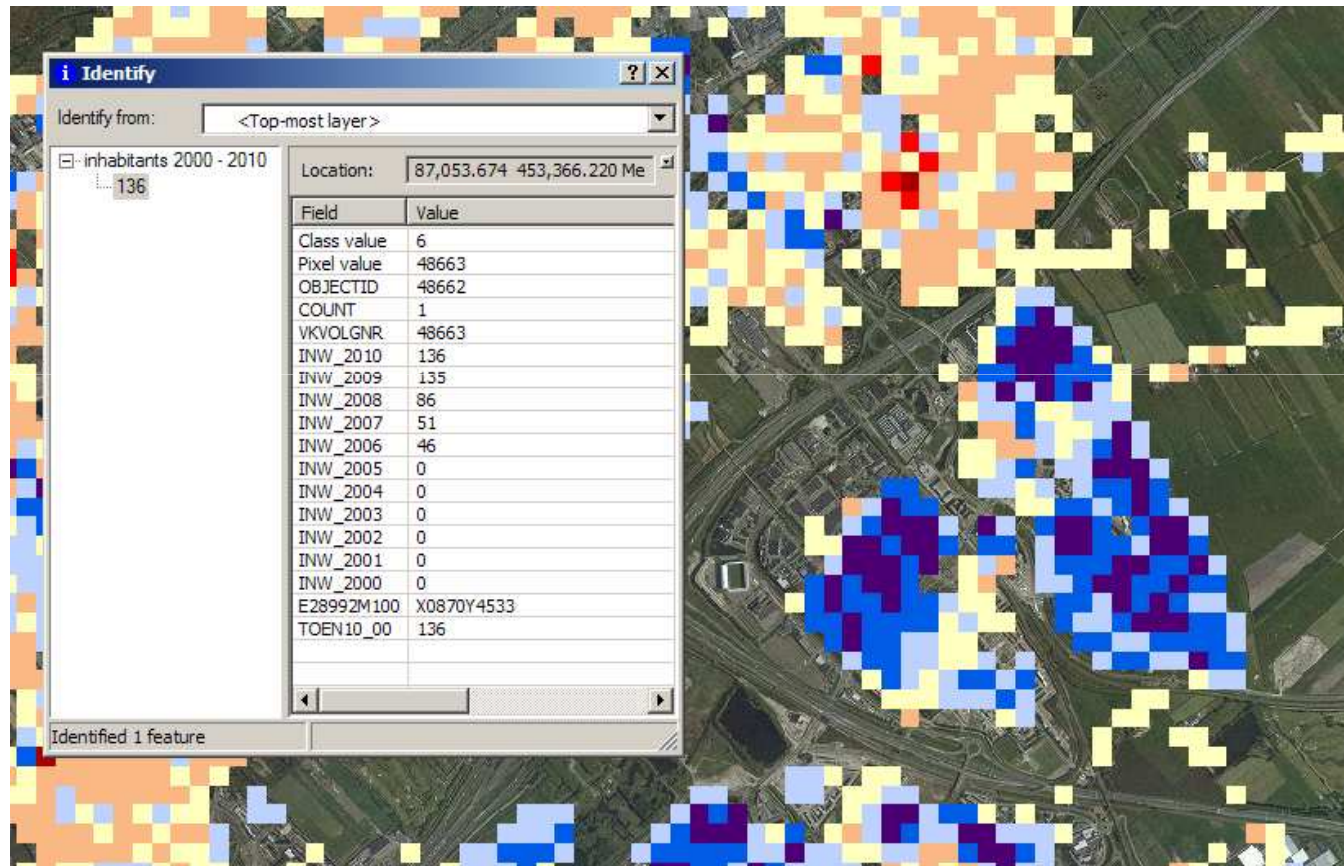


Statistics  
Netherlands



# Population distribution The Netherlands

## 100m x 100m grid, change 2000 - 2010



# Metadata

## TW Population Distribution. Metadata Data Specification Population Distribution Demography

- Dataset (chapter 8)
  - Common metadata (ISO 19.115)
- Featureset (chapter 5)
- StatisticalDataValue (chapter 5.2.2.2.)



# TW Population distribution. Metadata Featureset

Example: Population register

Total number of men less than 25 years old on the 1e of Januari 2010 per 1kmx1km grid for the Netherlands.

About 4,000 males are not located on an individual address

# TW Population distribution. Metadata Featureset

<b>Name</b>	<b>Data type/Code list</b>	<b>Value</b>
InspireId	Identifier (codelist)	<i>code? (to be defined)</i>
areaOfDissemination	Statistical Unit (total AREA!!):	<i>Netherlands, statisticalGrid</i>
classifications	Classification1 (codelist)	<i>sex</i>
domain	Domain (codelist)	<i>demography</i>
measure	Variable (codelist)	<i>populationAtResidentialPlace</i>
measurementunit	UnitOfMeasurement (codelist)	<i>persons</i>
notCountedPopulationProportion	(number)	<i>4,000</i>
periodOfMeasurement	TM_period (date)	<i>15-02-2010</i>
periodOfReference	TM_period (date)	<i>01-01-2010</i>
periodOfValidity	TM_period (date)	<i>-</i>
statisticMeasurementMethod	StatisticsMeasurementMethod (codelist)	<i>count</i>
universe	Universe (text)	<i>under 25 years (as a subset of classification)</i>
<b>values</b>	<b>StatisticalDataValue (individual1)</b>	
	<b>StatisticalDataValue (individual2)</b>	
	.... ....	

# TW Population distribution. Data and metadata

## StatisticalDataValue (Individual1)

Data type/Code list		Value
approximatelyLocatedPopulationProportion (number)		1
comment (text)		<i>partly redistributed people, contains homeless people</i>
conventionallyLocatedProportion (number)		4
dimensions: StatisticalDataDimensions	classification2 (codelist)	<i>male</i>
	geoReference: Statistical unit (codelist)	<i>CRS28992RES1000mN350000E140000 (StatisticsIGridCellUnit)</i>
flags		-
specialValue* (codelist)		-
value*		<i>16 (total?)</i>

\* Either specialValue or value is mandatory

# TW Population distribution. Data and metadata

## StatisticalDataValue (Individual2)

Data type/Code list		Value
approximatelyLocatedPopulationProportion (number)		-
comment (text)		-
conventionallyLocatedProportion (number)		-
dimensions: StatisticalDataDimensions	classification2 (codelist)	<i>male</i>
	geoReference: Statistical unit (codelist)	<i>CRS28992RES1000mN351000E141000 (StatisticsIGridCellUnit)</i>
flags		-
specialValue* (codelist)		Confidential
value*		-

\*  
Either specialValue or value is mandatory

## TW Population distribution. Questions

- Definitions of content in codelists, for instance what is a household?
- Missing?: Metadata on status of the data like *definitive, preliminary* (8.3.1. Maintenance information?)

# Data distribution

# Data distribution

populated 100m x 100m grids Netherlands, 14 variables

## ESRI gridformat

Naam	Grootte
vat.adf	27,013 kB
w001001.adf	2,850 kB
w001001x.adf	67 kB
hdr.adf	1 kB
log	1 kB
sta.adf	1 kB
dblbnd.adf	1 kB

29 Mb

publication by WCS ?

## ESRI vectorformat

Naam	Grootte
arc.adf	79,739 kB
pal.adf	53,850 kB
pat.adf	36,627 kB
cnt.adf	34,338 kB
lab.adf	32,049 kB
arx.adf	9,170 kB
pax.adf	4,579 kB
cnx.adf	4,579 kB
log	1 kB
dbltic.adf	1 kB
dblbnd.adf	1 kB

224 Mb

publication by WFS



# Data distribution

## Ways to publicate

### SU and PD combined

- Vector data: WFS or
- Grided data: WCS (GeoTIFFxx, PNG, ..) **(to be researched)**
- Metadata Geometry published through a catalogue
- Metadata dataset and featureset coupled on seperate bounding box (areaOfDissemination)
- Metadata Statistical data per cell published coupled on each seperate gridcell?

### SU and PD separated

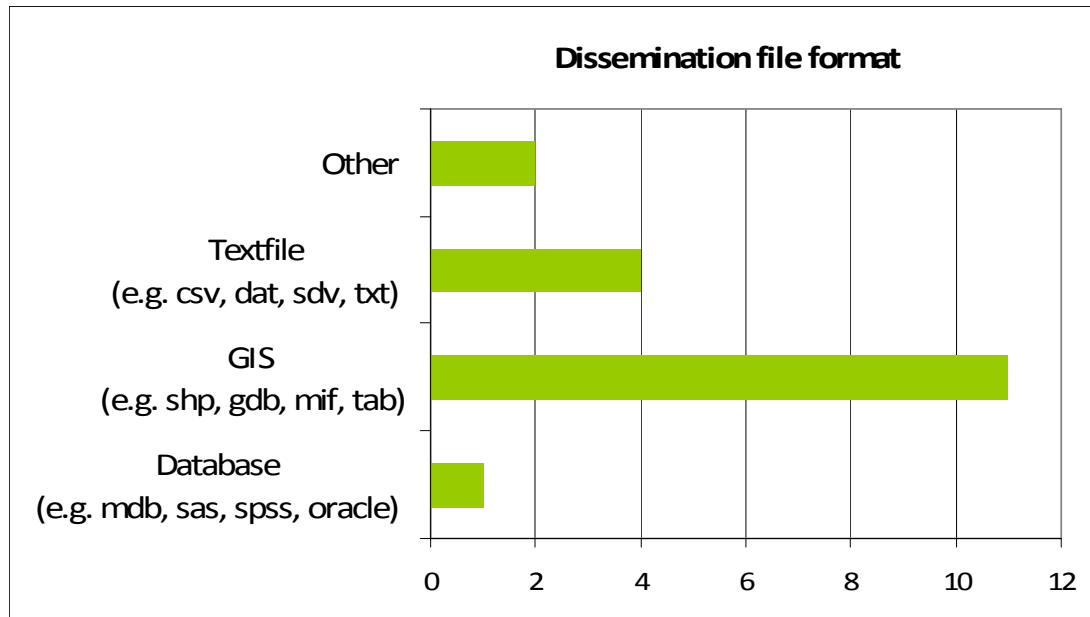
Data Specification Statistical Units

- Geometry: Coördinates and metadata

Data Specification Population Distribution

- Statistics: Data and metadata

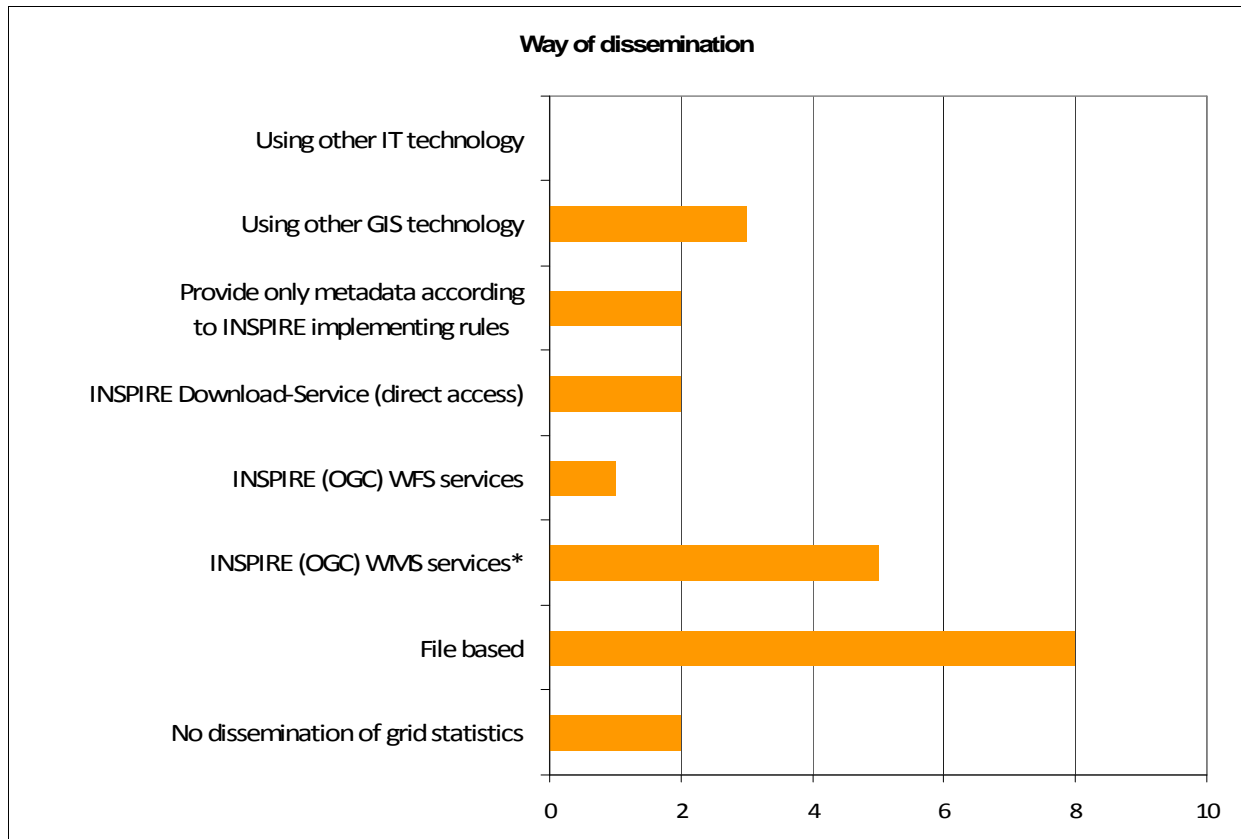
# Data distribution



Practice in dissemination

Integration of statistics and geometry (vector or descriptor)

# Data distribution Future deliverance



## Preliminary conclusion

- Exchange statistical and geodata data by an integrated SU and PD schema as XML
- Schema downloadable from INSPIRE website

## Challenge

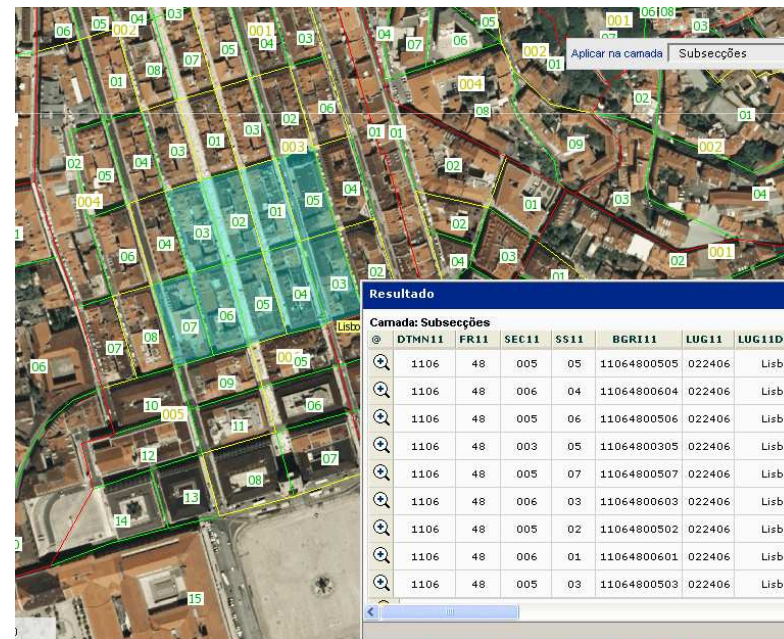
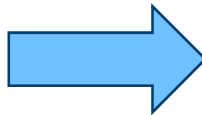
- Data conversion into geodatasets based on XML files and schema.

# Methods for geographical selection and reporting

# Methods for geographical selection and reporting Portugal

- Selection on screen

Tool to Select features on a map by clicking or dragging a box with the mouse.



# Methods for geographical selection and reporting Portugal

- **Select by attributes**

Select features by specifying a query based on the attributes of it's features

QueryEditor

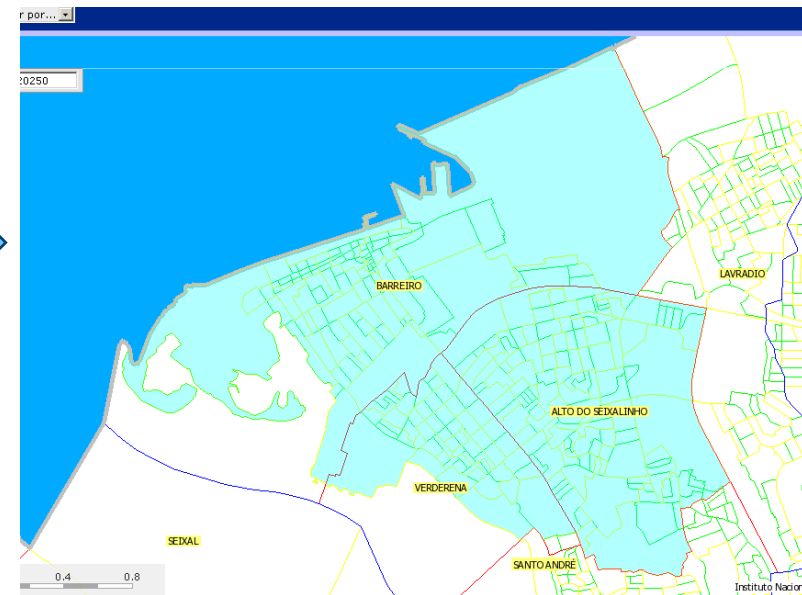
Spatial datas  
Layer name: Lugares

Attribute  
Nome: LUG11DESIG  
Type: Text  
Comparison: equal  case sensitive  
Value: Barreiro Add

Operator  
( ) NOT  
AND OR

Generated query  
[LUG11DESIG] LIKE 'Barreiro'

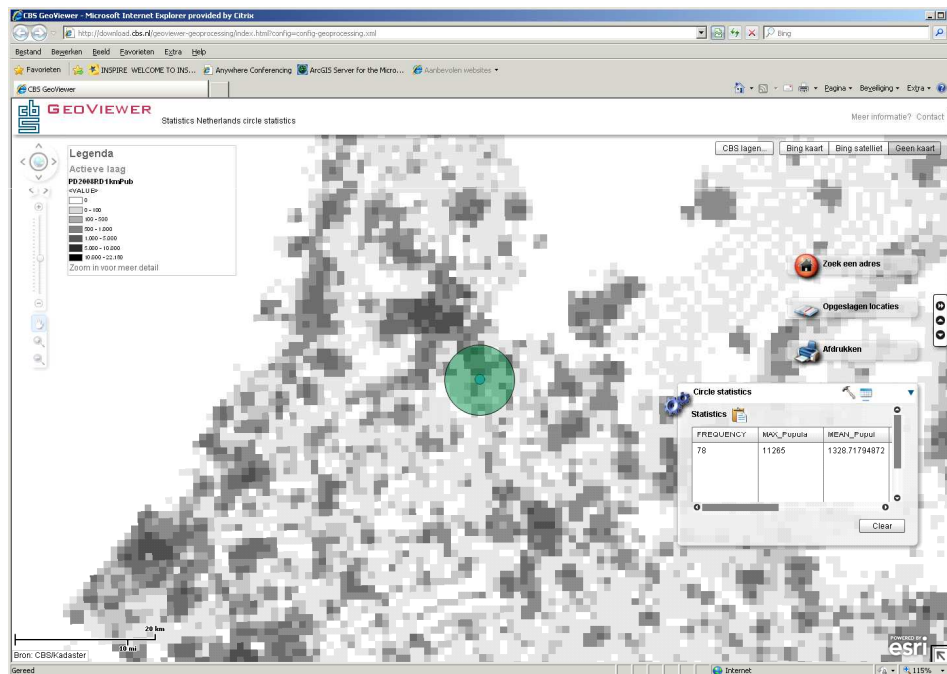
Reset Apply Cancel





# Methods for geographical selection and reporting the Netherlands

## Aggregated statistics by GeoProcessing Service



- Thank you for your attention

