



## The Regiomonitor

Experiences and use in local governments

Karin Pfeffer

## Statistical databases in the NL

- Municipal register of population
- CWI: register of unemployment
- WOZ database: real estate information
- LISA: national information system of jobs
- CBS – Statistics Netherlands (population, households, employment, income etc. )
- .....

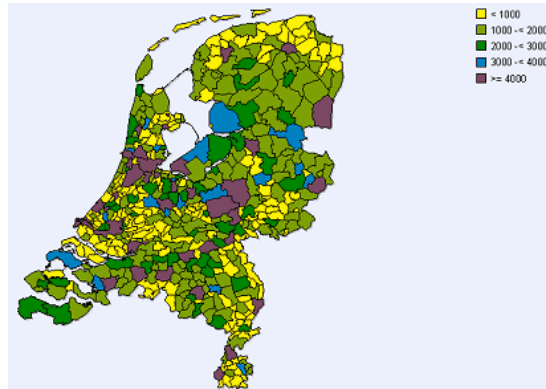
## Outline

- Introduction
- Description of the Regiomonitor
- Reflection on the use in local government

## Several attempts to make data accessible



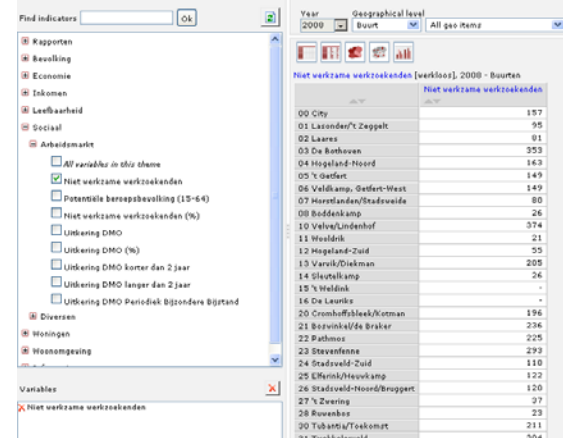
## Business monitor: local establishments of firms in 2003



Source: ABF Research/LISA

## Interactive neighbourhood monitor

Buurtmonitor Enschede <http://enschede.buurtmonitor.nl/>

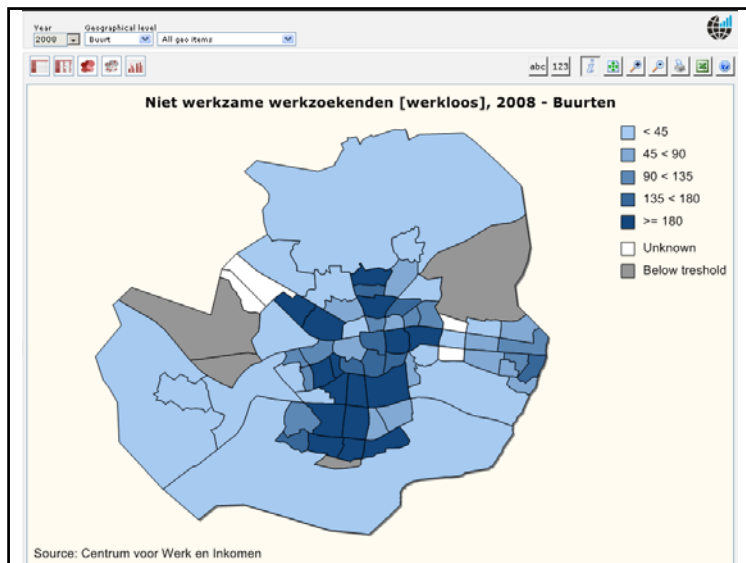


## Statistical yearbook Enschede

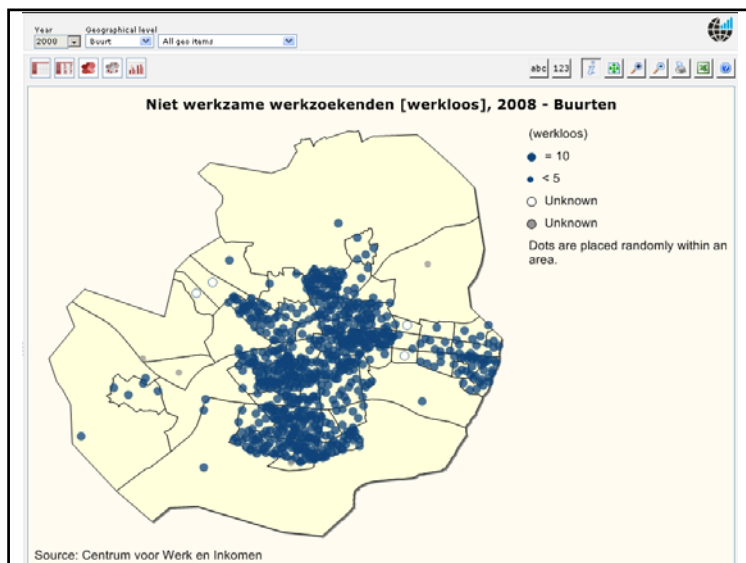
Tabel 14.1: Bevolking en woningen per buurt per 1 januari 2008.

naam van de buurt	buurt nr.	aantal inwoners per buurt	aantal woningen per buurt	naam van de buurt	buurt nr.	aantal inwoners per buurt	aantal woningen per buurt
City	0	2.579	1.699	Stroinkslanden N.O.	60	3.338	1.420
Lavender,t Zeegeit	1	1.252	682	Stroinkslanden Zuid	61	4.982	2.080
Laares	2	1.397	591	Stroinkslanden N.W.	62	2.364	937
de Bothoven	3	5.762	3.198	Wesselerbrink N.O.	63	3.948	1.800
Hogeland-Noord	4	2.474	1.258	Wesselerbrink Z.O.	64	4.552	1.636
't Geffert	5	3.092	1.722	Wesselerbrink Z.W.	65	2.530	1.123
Veldkamp, Geffert-West	6	1.947	951	Wesselerbrink N.W.	66	5.509	2.415
Horslonden, Stadsweide	7	2.431	1.240	Helmerhoek-Noord	67	4.276	1.626
Boddenkamp	8	494	269	Helmerhoek-Zuid	68	4.023	1.498
wijk 0		<b>22.228</b>	<b>11.610</b>	Het Brunink	69	198	43
				wijk 6		<b>35.602</b>	<b>14.576</b>
Veldv.Linden/hof	10	4.541	2.059	Industrie- en havengebied	70	248	101
Woodrik	11	1.228	540	Marssieden	71	70	26
Hogeland-Zuid	12	2.355	997	Koekoeksbekhoek	72	15	6
Varvik, Diekman	13	3.544	1.604	de Broeierd	73	10	5
Sluvelkamp	14	177	58	wijk 7		<b>343</b>	<b>138</b>
't Weidrik	15	21	5				
De Leuniks	16	105	33				
wijk 1		<b>11.971</b>	<b>5.296</b>				





- (Municipal) statistics are often published as tables or diagrams
- Mostly pre-defined boundaries (e.g. administrative wards) are used for visualisation of statistics
- Conventional thematic maps - shading of areas according to the (relative) occurrence; e.g.



## However

- Annual availability of several databases for the Dutch 6-digit postal code;
  - Availability of (GeoICT-) tools to process detailed databases and make it accessible
- ⇒ Request from the municipality of Amsterdam to develop a monitoring tool which utilizes the detailed databases to:
1. Identify the presence of spatial concentrations
  2. Identify the location of spatial concentrations
  3. Visualize dynamics of spatial concentrations through time

## Result

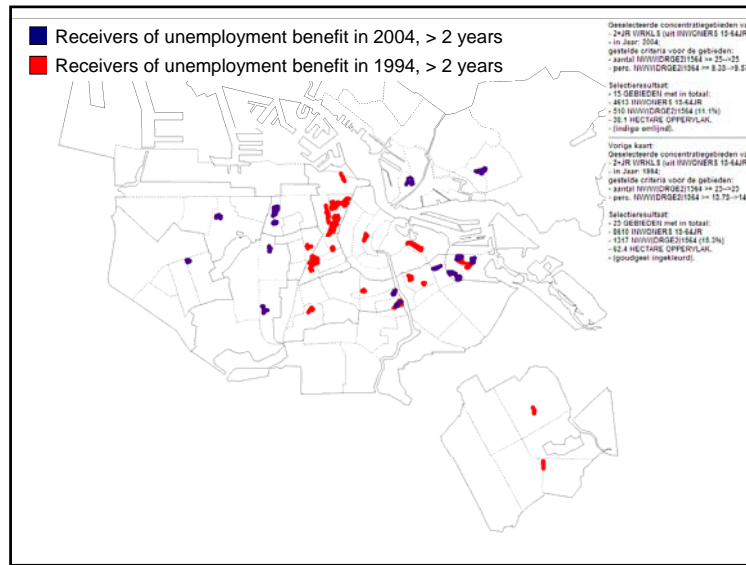
1. GIS-based web-application to visualize interactively spatial concentrations of different themes:
  - Demography
  - Ethnicity
  - Household types and characteristics
  - Housing
  - Socio-economic
2. Joint project of the University of Amsterdam (UvA) and the municipal research office of Amsterdam (O&S)
  - Collaborative development of the content ("indicators")
  - University: development and implementation of the methodology
  - Municipality: provision of disaggregated data (postal code)

## Spatial concentration

**Percentage** of a variable within a postal code

>>

**Average** of the variable over the total city/region



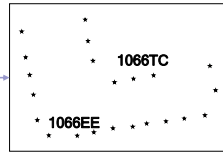
## postcode

Postcode	X	Y
1066TC	X1	Y1
1066TC	X2	Y2
1066TC	X3	Y3
1066TC	X4	Y4
1066TC	X5	Y5
1066TC	X6	Y6
1066TC	X7	Y7
1066TC	X8	Y8
1066TC	X9	Y9
1066TC	X10	Y10
1066TC	X11	Y11
1066TC	X12	Y12

## postcode

PC6 coordinates => points

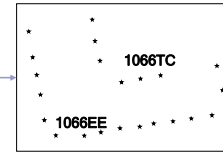
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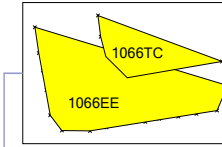
## postcode - postcode area - cluster

PC6 coordinates => POINTS

Postcode	X	Y
1066TC	X1	Y1
1066TC	X2	Y2
1066TC	X3	Y3
1066TC	X4	Y4
1066TC	X5	Y5
1066TC	X6	Y6
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1066TC	X9	Y9
1066TC	X10	Y10
1066TC	X11	Y11
1066TC	X12	Y12

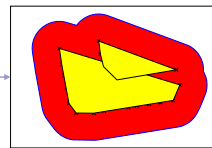


CONVEXHULL



+ attribute table/PC5

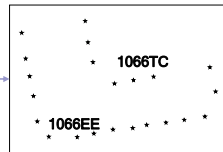
CLUSTER



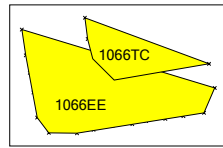
## postcode - postcode area

PC6 coordinates => POINTS

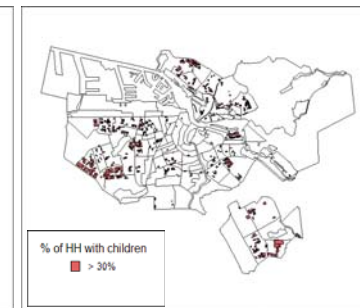
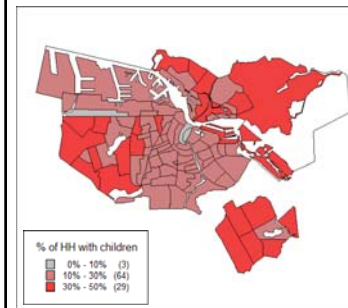
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1066TC	X8	Y8
1066TC	X9	Y9
1066TC	X10	Y10
1066TC	X11	Y11
1066TC	X12	Y12



CONVEXHULL



## Theme: families (HH with children)



Spatial units are dynamic  
Construction of spatial unit is data-driven  
Change of phenomenon is not related to administrative unit

## Use of the monitoring tool

- Available to the complete municipal staff
- To inform
- Fact-sheets
- Annual publication “State of the city of Amsterdam”
- Small studies (e.g. administrative ward Geuzenveld/Slotermeer – identification of deprived citizens)

## Scaling up to the regional level

1. Inviting representatives of the municipal research offices in the region of Amsterdam to a workshop
2. Approaching representatives individually
3. Developing a prototype on the basis of few municipalities to get the other municipalities on board
4. Presenting the prototype
5. Collaborative identification of interesting and feasible themes in the region
6. Data collection on different themes through e-mail
7. Extending the prototype with more municipalities and themes

## Scaling up to the regional level

### General interest

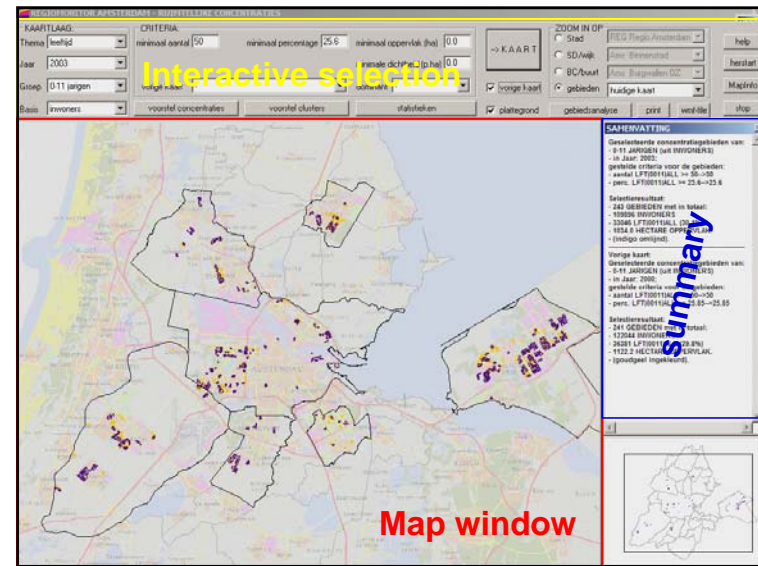
To analyse regional dynamics of spatial clusters

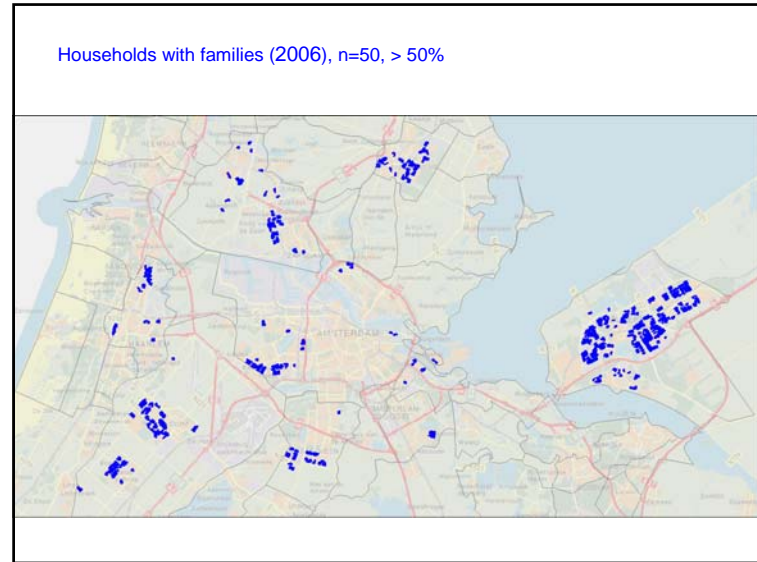
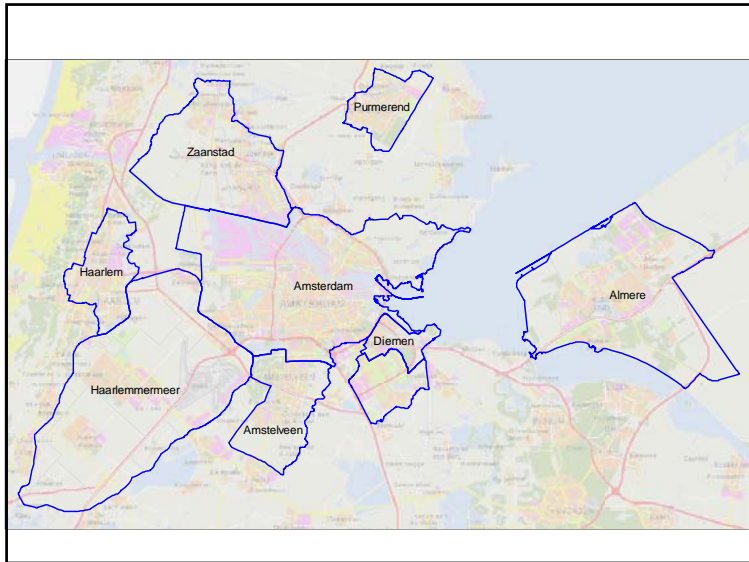
### Municipal interest

To compare the local level to the regional level

### Scientific interest

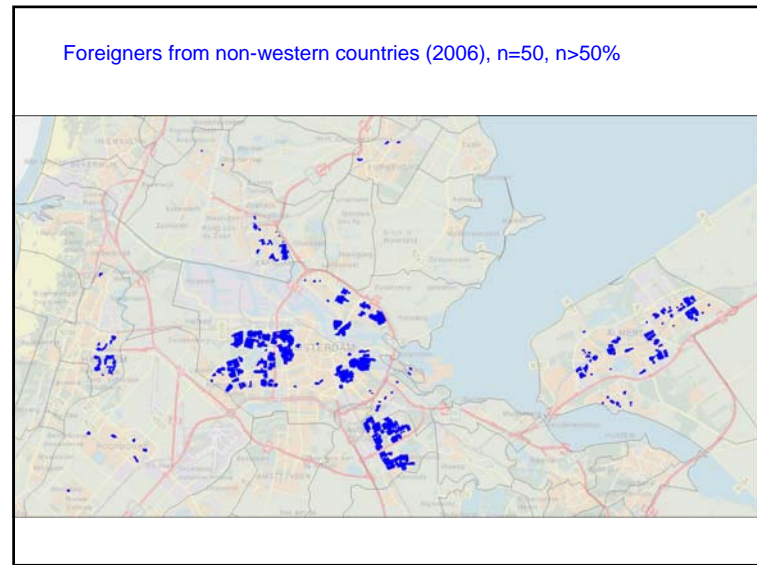
To have access to a detailed regional database to answer regional research questions





## Choice of content

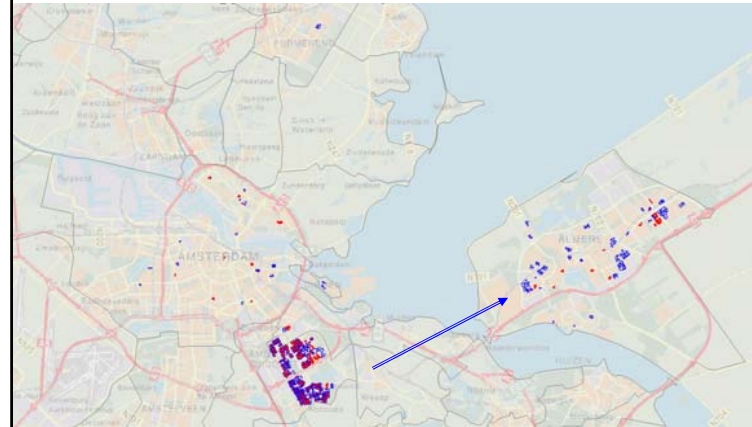
- Presence of PC6-databases which are regularly updated
- Relevant theme for the region
- Classification needs fine-tuning (e.g. age groups, real estate values)



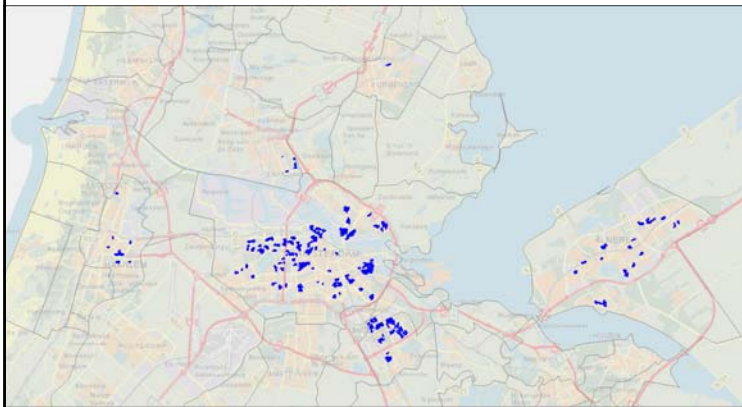
## Classification of users

Enthusiastic	quick data supply frequent use of the tool ( <i>state of the city</i> ) regular participation in team meetings Co-organisation of seminars promotion within municipality
Indifferent	slow data supply participation once in a while
Disappointed	data supply, no participation
Passive	indirect data supply, no participation

Spatial concentration of Surinamese in 2000 and 2006 (n=25, > 25%)



Social security benefit (2005), n=20, >15%

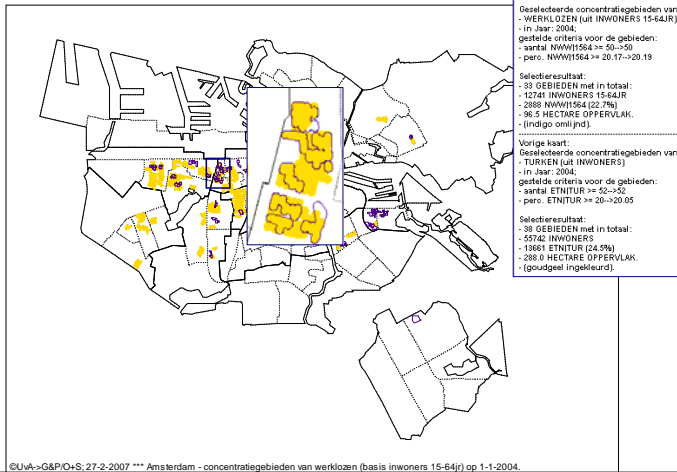


## The use

Concept of spatial concentrations is difficult and critical

- ⇒ Discussion during the team meetings
- ⇒ Training workshops
- ⇒ Seminars
- ⇒ Joint publication (teams of local researchers with UvA researcher)
  - The non-native middle-class
  - Up- and downgrading in the region: changes in the real estate and the population
  - Does in Harlem the housing market stimulate the creative class?
  - ....

## Visual correlation (unemployed/turkish)



## The Regionmonitor supports

- Regular observation, recording, analysis and reporting of *indicators* at the regional scale
- Monitoring the dynamics of spatial concentrations through time
- Identification of spatial differences within and across neighbourhoods
- Detection of dominant or deviating features => Identification of areas that need more in-depth analysis
- Co-operation with local research institutes

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## The way to success

- + Regular meetings (2-3 times/year)
- + Integration of users in the development (e.g. deciding on the content)
- + “Usefulness” of the content (needs more attention) – information need
- + Allocation of time (both within the University as well as within the municipality)
- + Incentives, e.g. joint publication

website

<http://mapinfoserver.fmg.uva.nl>