CBS Urban Data Centers

Better Data, Better City, Better Life

Robert Hermans |Director CBS Urban Data Centres | Statistics Netherlands (CBS)

Centraal Bureau voor de Statistiek

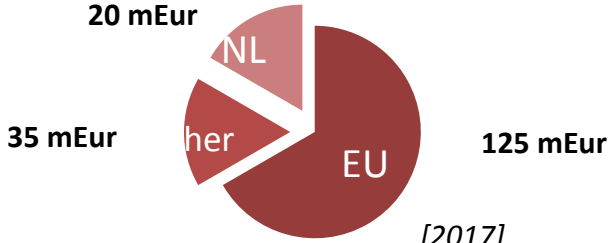
CBS – Statistics Netherlands

Autonomous Public Body with a Legal Entity (“ZBO”)

The Hague

Heerlen

Bonaire



[2017]

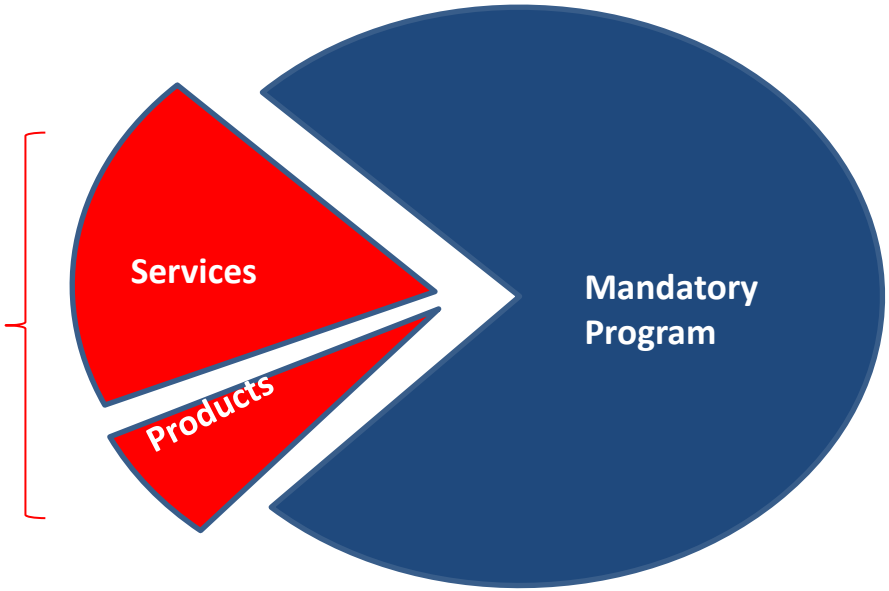
180 mEur

2000+

Financial Structure

35 mEur

Third Party Customer Base



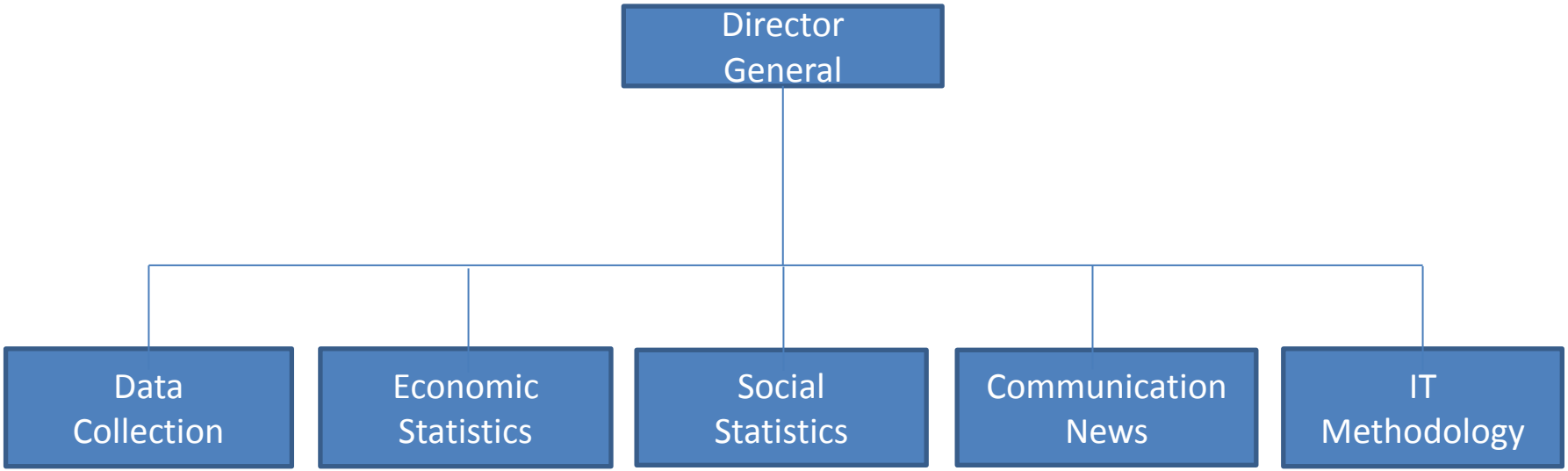
145 mEur

Ministry of Economic Affairs

Vision on the role of CBS

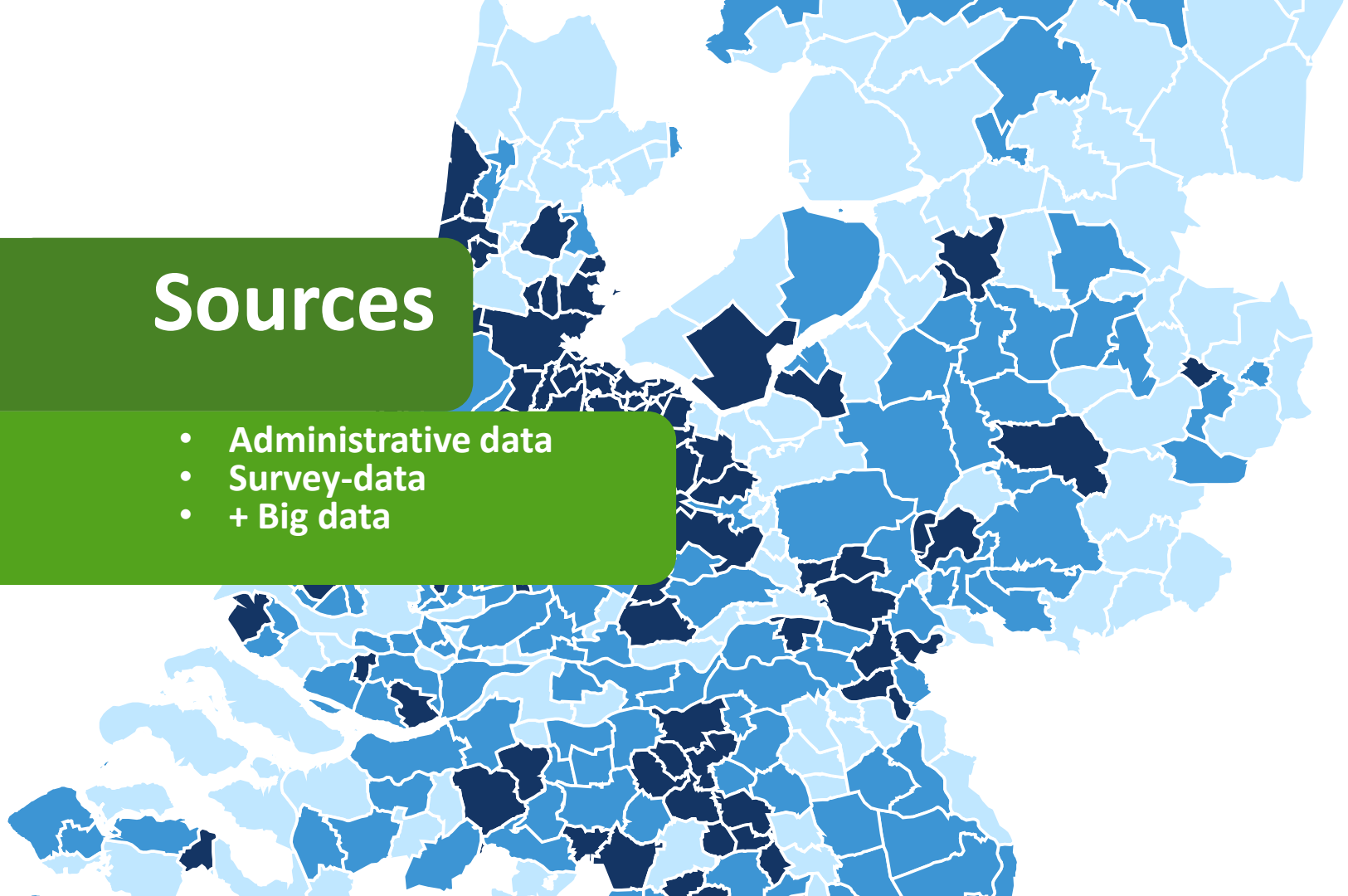
Pro-actively supply
actionable intelligence using
independent, high quality and coherent
statistical information
to support
policy and decision making
and
opinion forming

Organisational Structure



Sources

- Administrative data
- Survey-data
- + Big data



CENTER FOR BIG DATA STATISTICS

Official Launch 27 September 2016

Statistics Korea

MEMORANDUM OF UNDERSTANDING
on
Big Data Statistics
Between
STATISTICS NETHERLANDS (CBS)
Kingdom of the Netherlands

AND

STATISTICS KOREA (KOSTAT)
Republic of Korea

This Memorandum of Understanding (MOU) establishes an agreement between Statistics Netherlands ("CBS") and Statistics Korea ("KOSTAT") both independent autonomous public bodies with a legal entity.

Recognizing that

KOSTAT is the national statistical organization, leading the advancement of national statistics in order to achieve the development of national statistics and producing reliable statistics to respond to diverse statistical demands, as well as promoting statistical research and technology, and

CBS is the independent national statistics institute in the Netherlands, providing high quality, coherent, public statistical information about all sectors of the society, as well as promoting statistical research in a large number or areas using state-of-the-art science and technology;

Considering that in recent discussions between KOSTAT and CBS it became apparent that in a number of areas concerning Big Data statistics items of mutual interest have been identified ("The Program");

KOSTAT and CBS have agreed to establish an MOU between the Sides and have reached the following understanding:

Data collection

PRIMARY DATA

Survey

SECONDARY DATA

Registers

Big Data = SENSOR DATA

Data Exhaust
Internet
Social Media
…

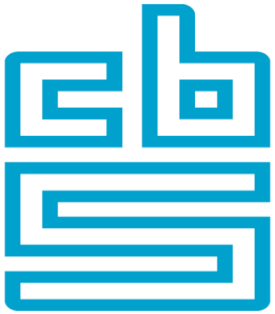
Most Important Administrative Data Sources

MUNICIPALITY INHABITANTS

EDUCATION

SOCIAL BENEFITS

TAXSERVICE



HEALTH

EMPLOYEE INSURANCE AGENCY

VEHICLES

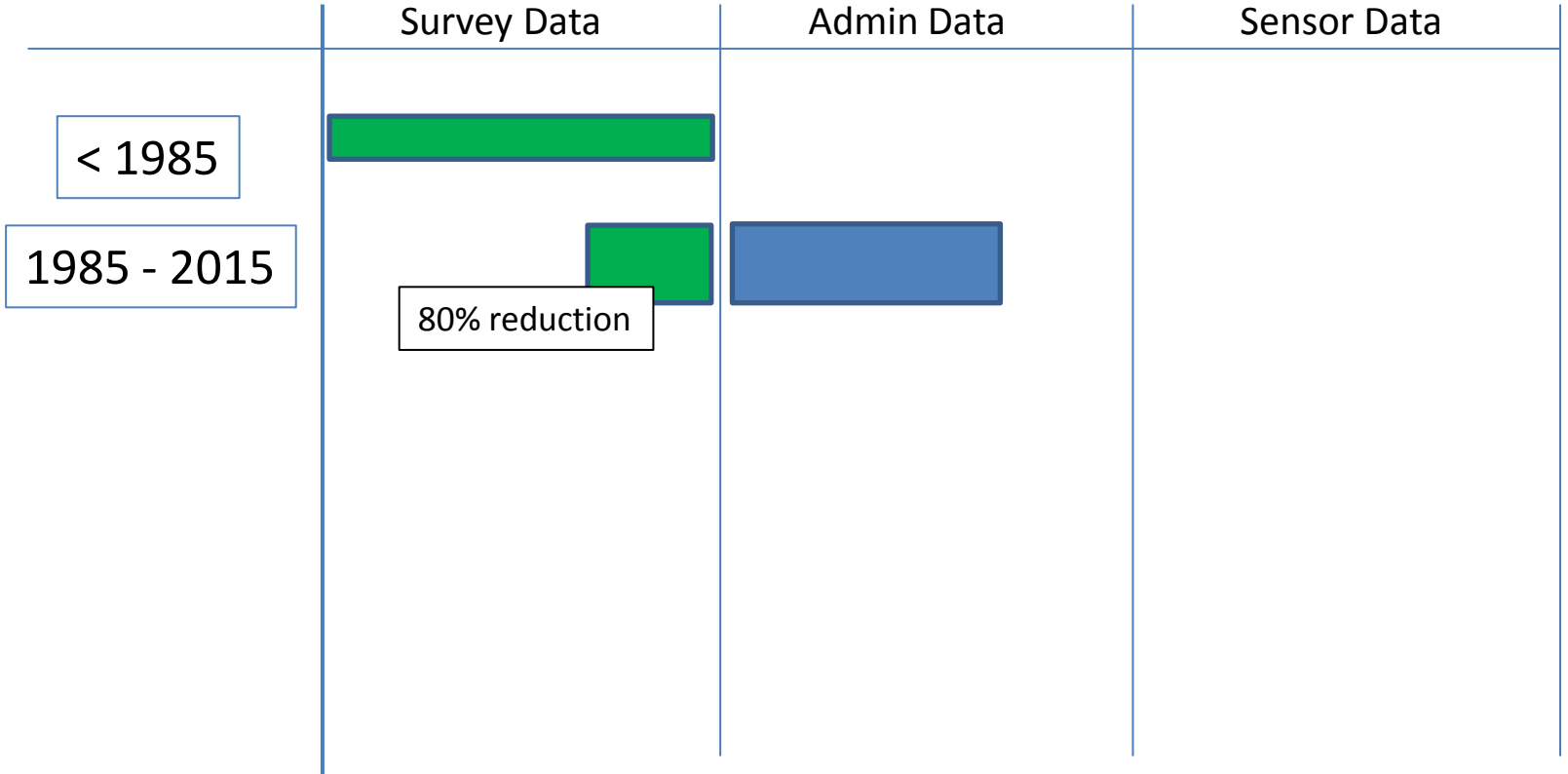
IMMIGRANTS ASYLUM

CHAMBER OF COMMERCE

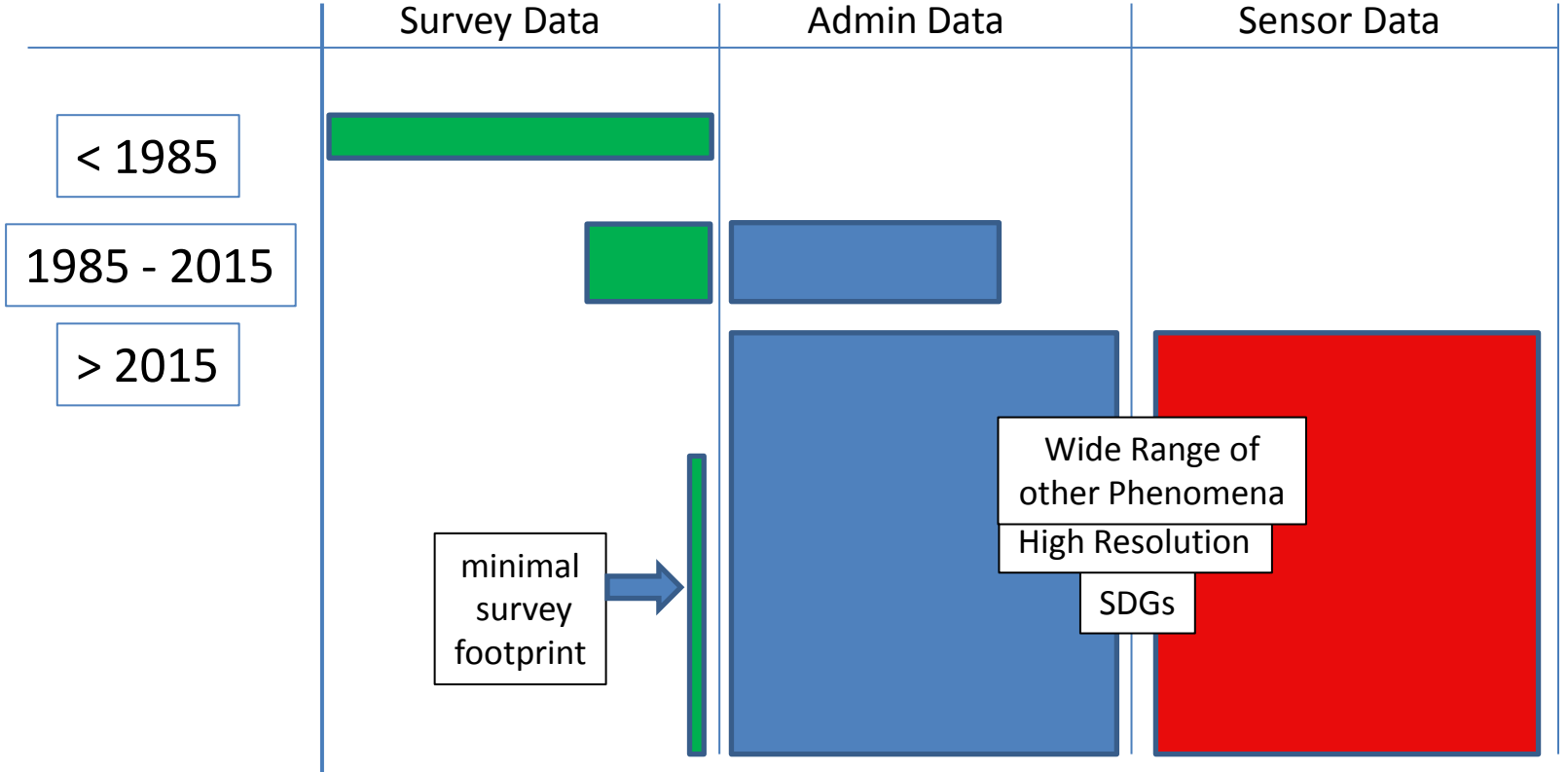
POLICE

CADASTER LAND & BUILDINGS

Advanced Data Collection



Advanced Data Collection



Big Data Innovation Goals

1 **New and Detailed**
e.g. Sustainable development goals indicators

2 **Real-time**
e.g. Day-time population

3 **Zero footprint**
Lowering administrative burden and costs
e.g. Social media and consumer confidence

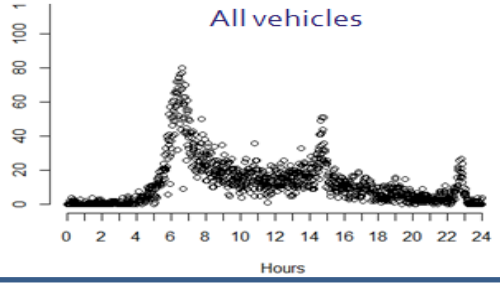
PRODUCTION of STATISTICS

Ecosystem: CBDS Partner network

Examples

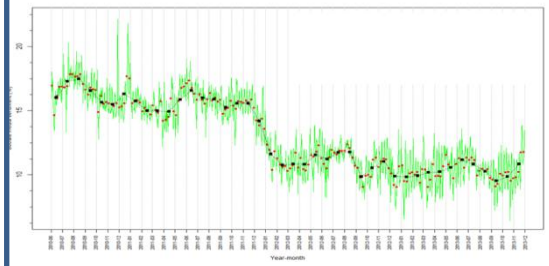
Traffic Intensity

Road Sensor Network



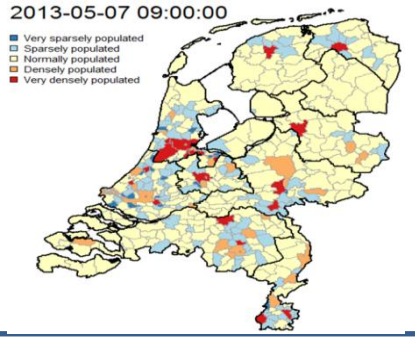
Sentiment Indicator

Social Media

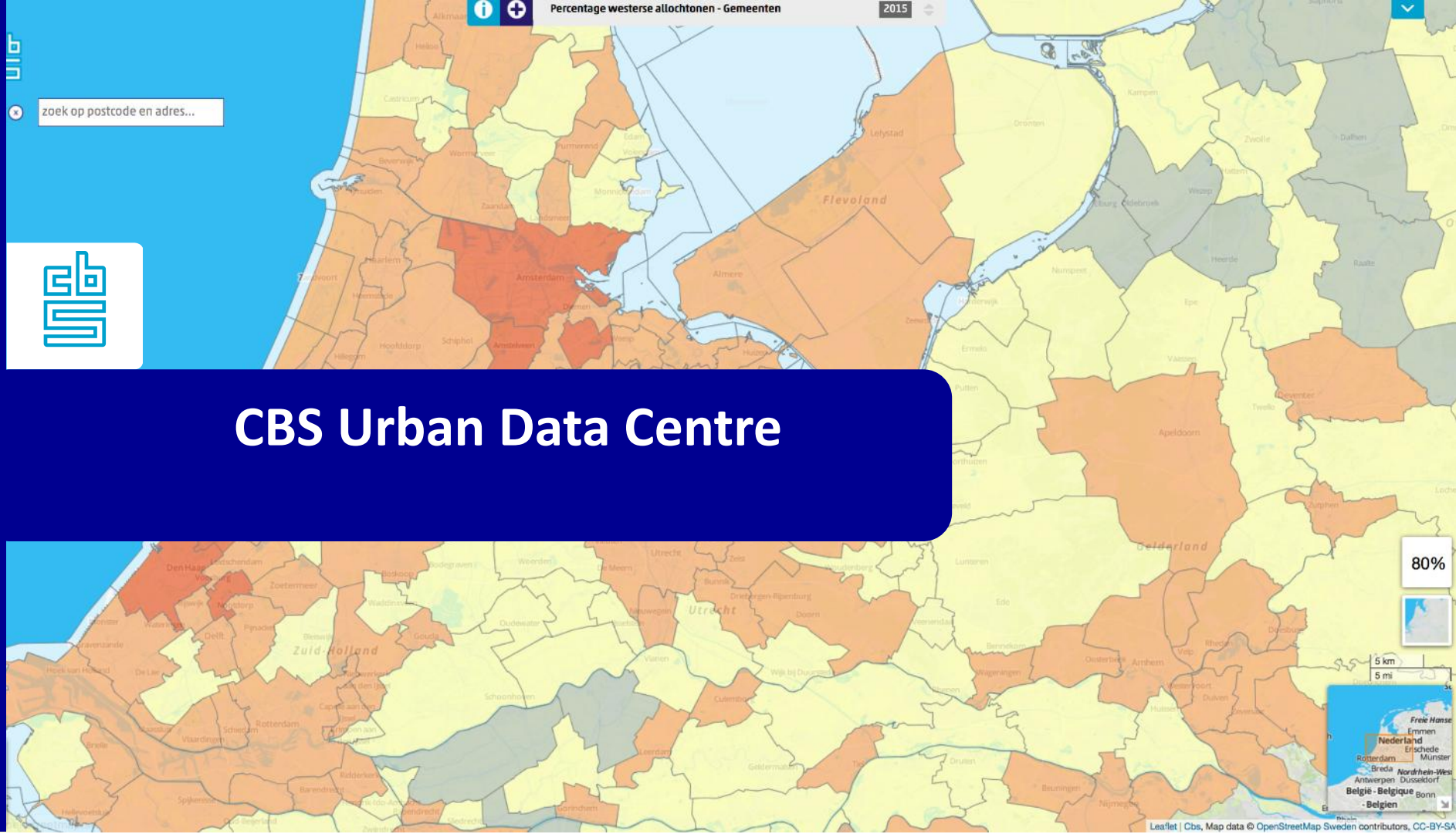


Daytime Population

Telecom Data



National
Regional
Local



CBS Urban Data Centre

Smart City

Data driven, evidence based, open data, big data

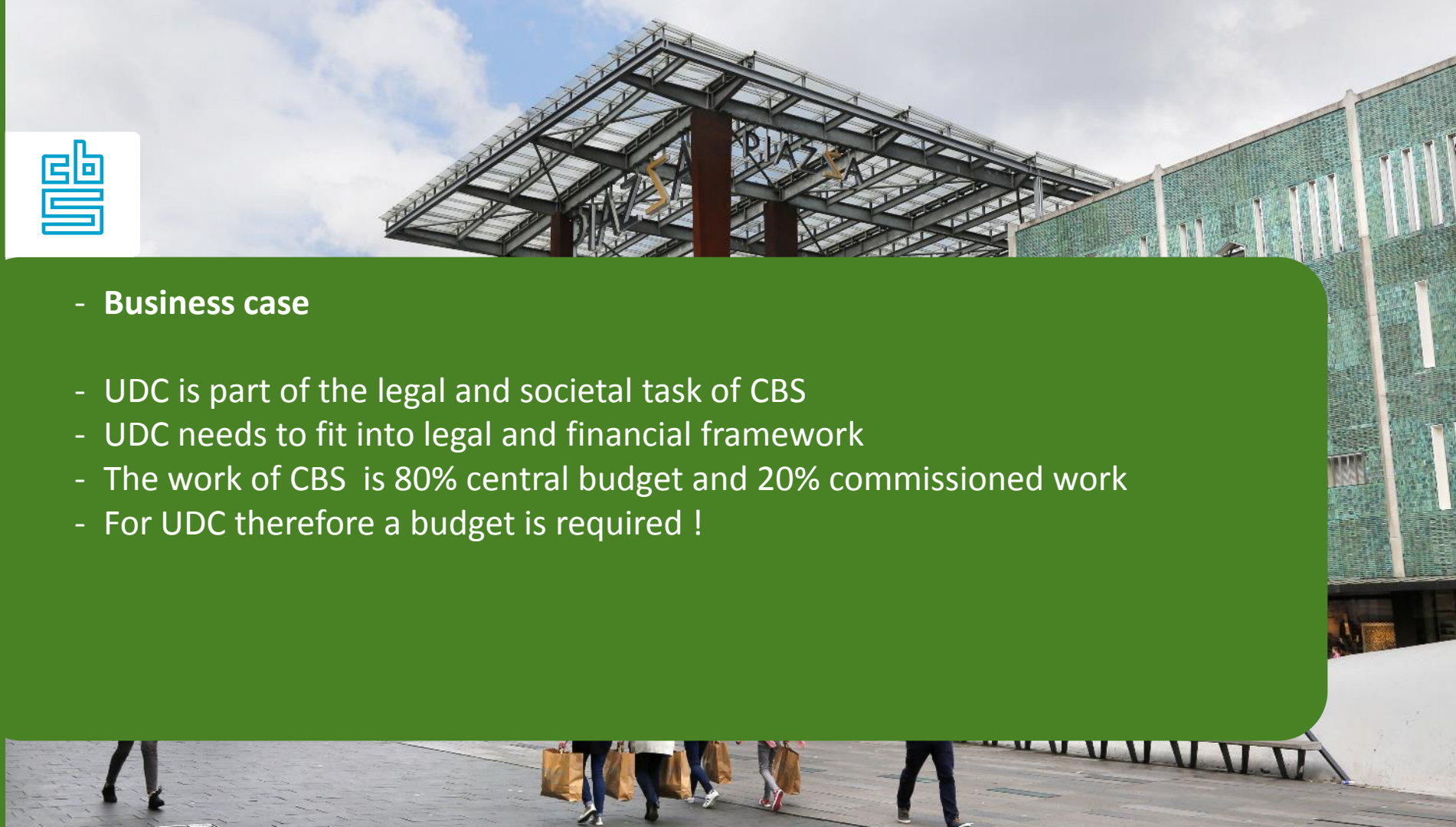
Smarter use of data

Beter understanding

Better decisions

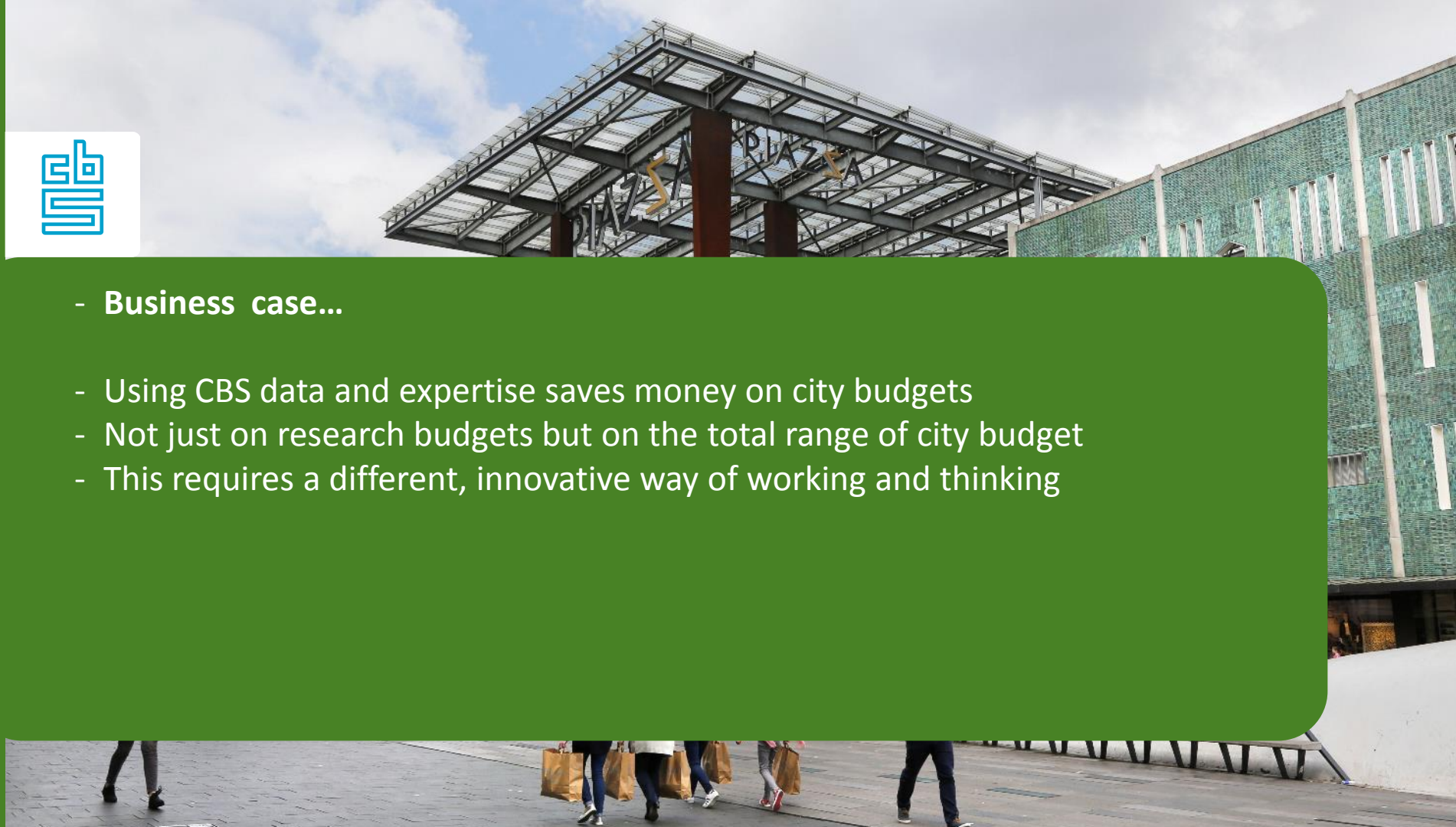
Beter & more efficiënt use of tax payers money

- CBS Urban Data Centre (UDC) = collaboration CBS-city or cluster of cities
- Using CBS data and expertise
- Beter data & smarter use of data (smart city)
- Leads to better understanding, better decisions and better city finances !!



- **Business case**

- UDC is part of the legal and societal task of CBS
- UDC needs to fit into legal and financial framework
- The work of CBS is 80% central budget and 20% commissioned work
- For UDC therefore a budget is required !



- **Business case…**

- Using CBS data and expertise saves money on city budgets
- Not just on research budgets but on the total range of city budget
- This requires a different, innovative way of working and thinking

Urban Data Center

Probably

11 CBS Urban Data Centres
&
2 CBS Provincial Data Centres

in The Netherlands

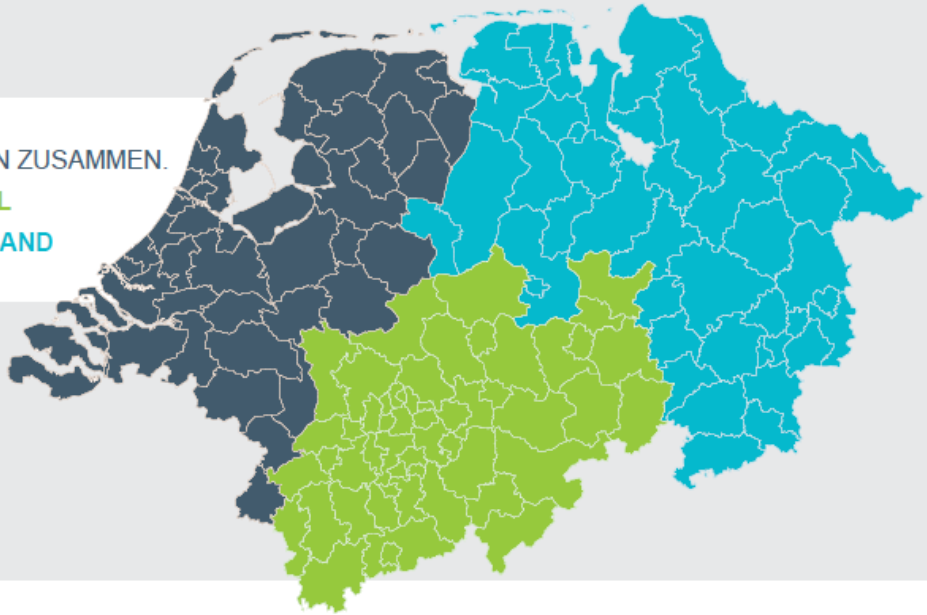
by end 2017

+ 1 Crossborder Data Center …

WIJ WERKEN SAMEN. WIR ARBEITEN ZUSAMMEN.

Arbeitsmarkt in Grenzregionen DE-NL

INTERREG DEUTSCHLAND-NEDERLAND



INTERREG Deutschland Nederland

Europäische Union
Europese Unie

LSN Landesamt für Statistik Niedersachsen

provincie limburg

Centraal Bureau voor de Statistiek

provincie groningen

Niedersächsische Staatskanzlei

Ministerie van Economische Zaken

Provincie Noord-Brabant

provincie Gelderland

provincie Overijssel

Information und Technik Nordrhein-Westfalen

Ministerium für Wirtschaft, Energie, Industrie, Mittelstand und Handwerk des Landes Nordrhein-Westfalen

provincie Drenthe

WWW.DEUTSCHLAND-NEDERLAND.EU

Dieses Projekt wird im Rahmen des INTERREG-Programms von der Europäischen Union und den INTERREG-Partnern finanziell unterstützt.

Dit project wordt in het kader van het INTERREG-programma financieel ondersteund door de Europese Unie en de INTERREG-partners.

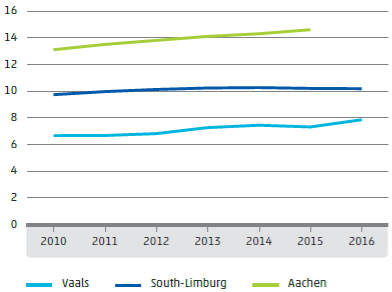
Factsheet
Vaals

CBS - ITEM
Euregional Data Center

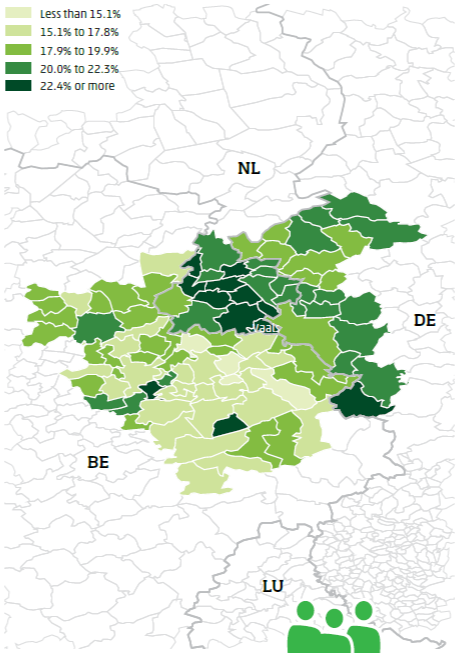
Maastricht University

Institute for Transnational and Euregional cross border cooperation and Mobility / ITEM

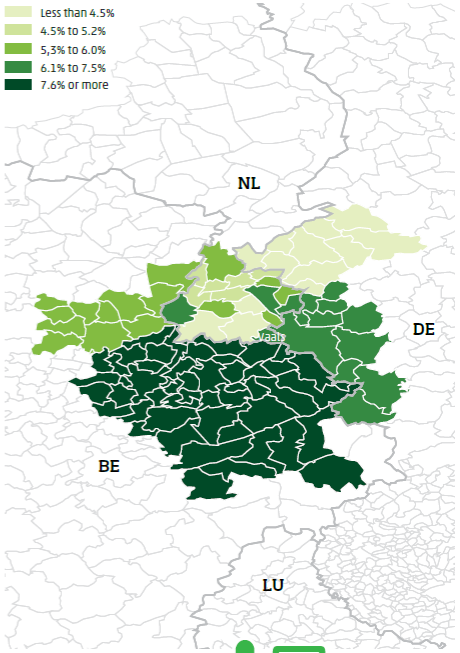
Number of inhabitants aged 18 to 25 years



Number of inhabitants aged 65 years +



Unemployment rate



8% of all inhabitants are 18 to 25 years old

25% of all inhabitants are 65 years or older

7% of all inhabitants are unemployed

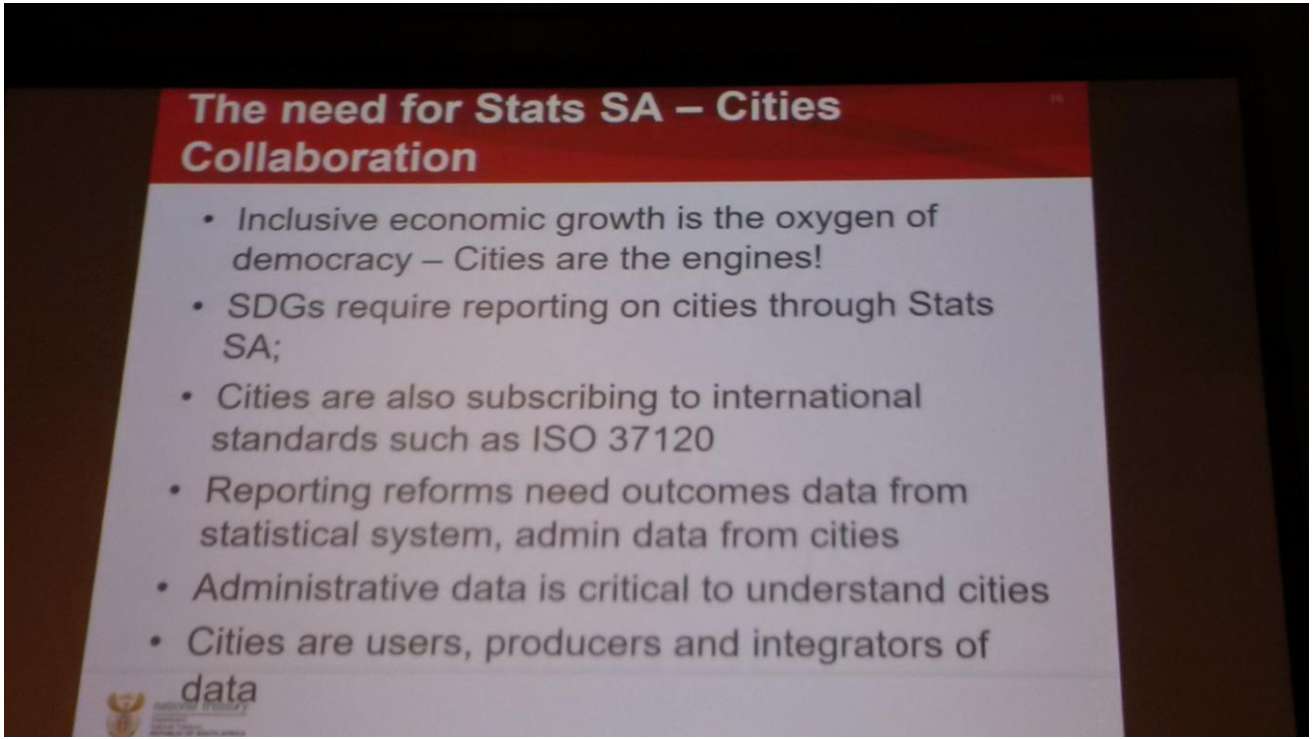
UDC concept in Argentina

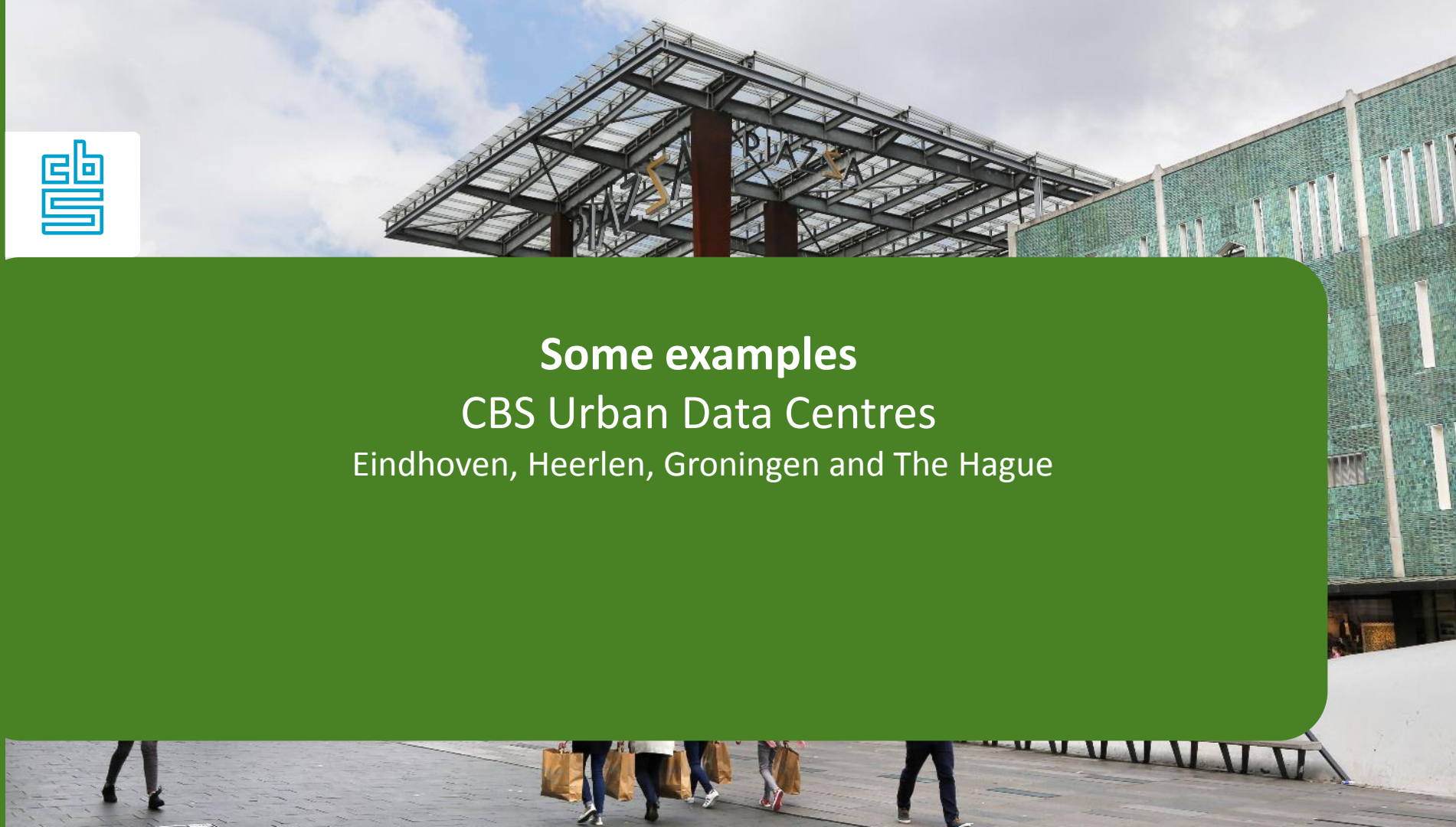
UDC concept in Argentina

UDC concept in South Africa

UDC concept in
Maharashtra State India

Implementing the UDC concept in South Africa



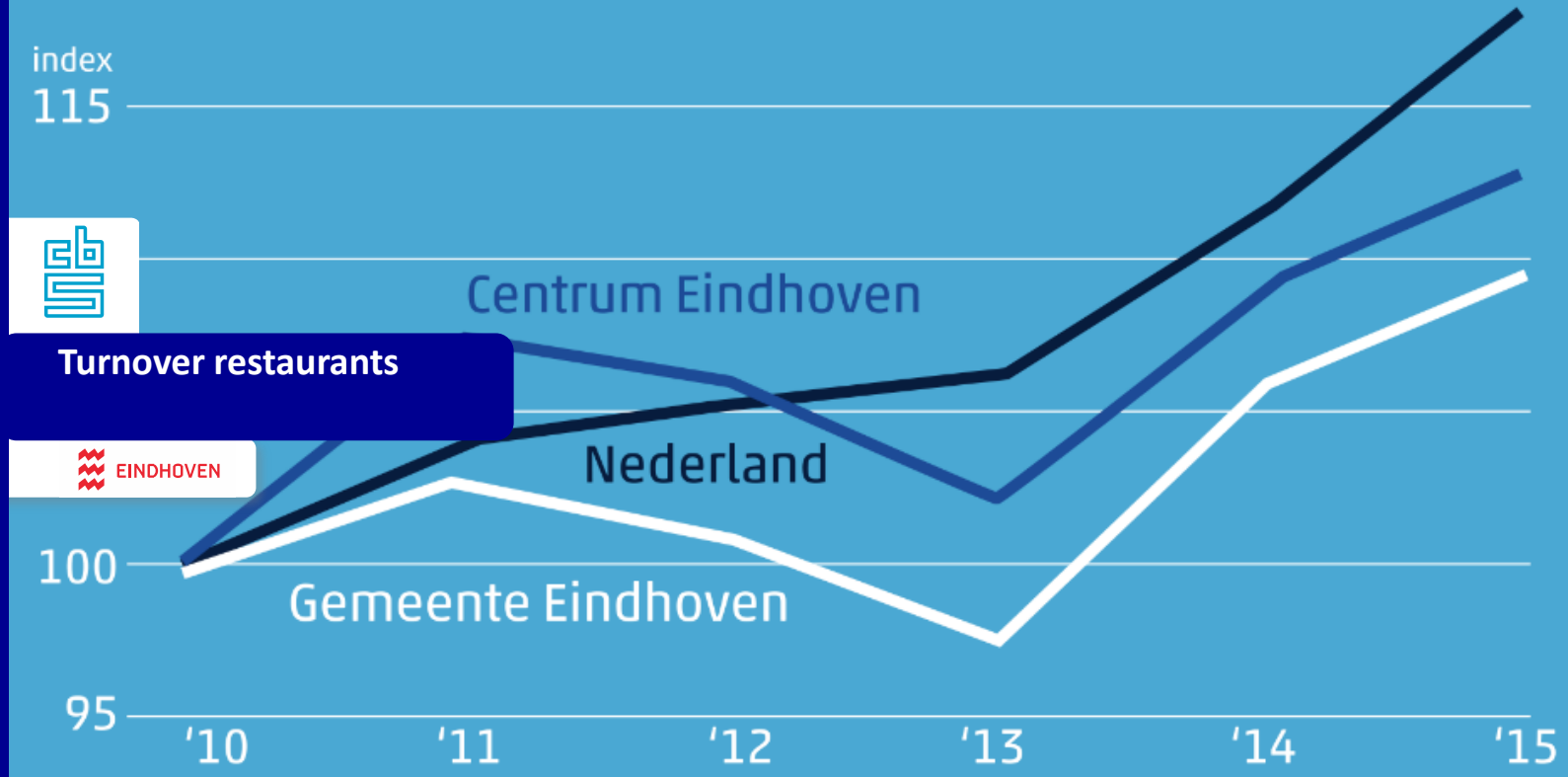


Some examples

CBS Urban Data Centres

Eindhoven, Heerlen, Groningen and The Hague

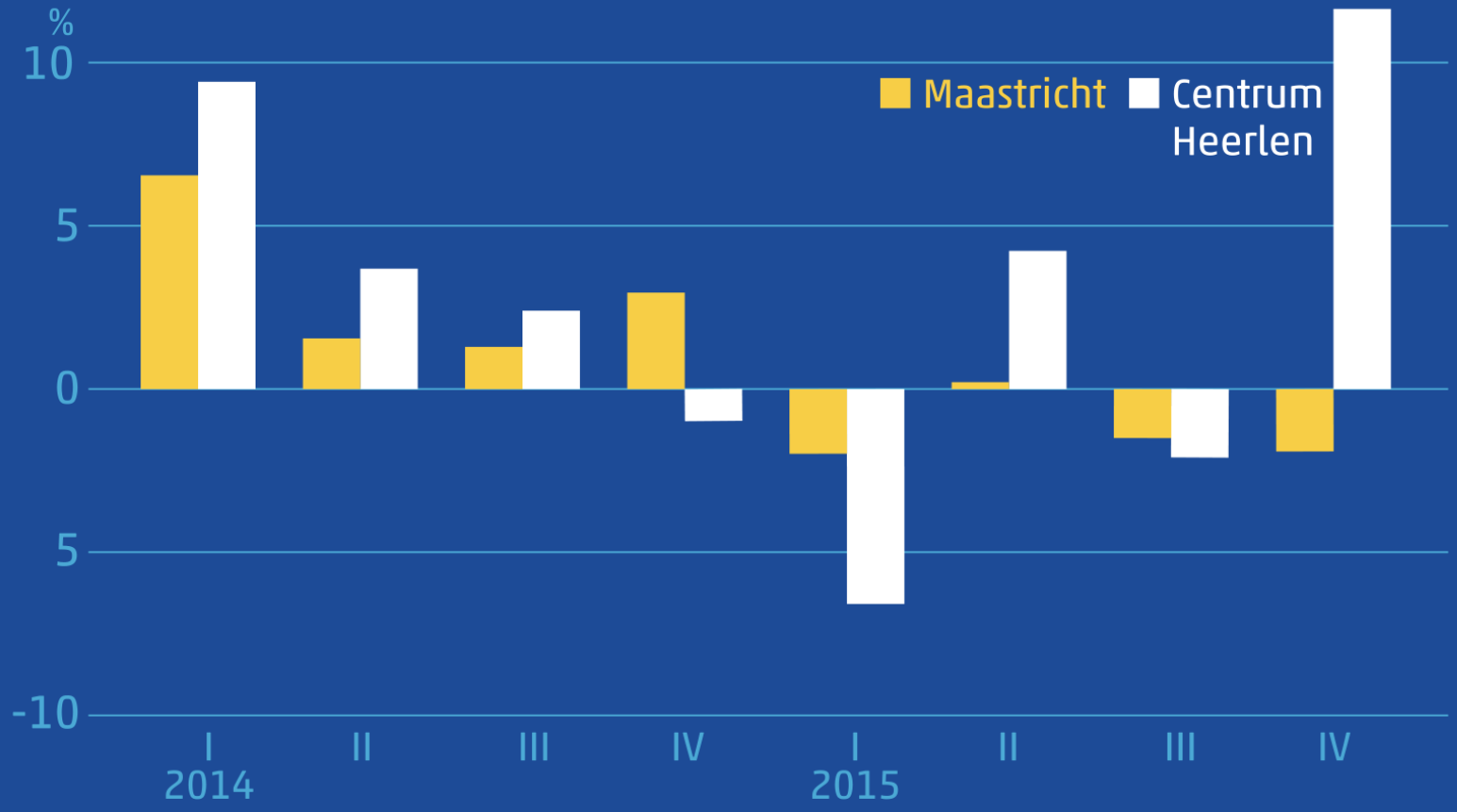
Turnover restaurants → ***Better understanding and better negotiations***

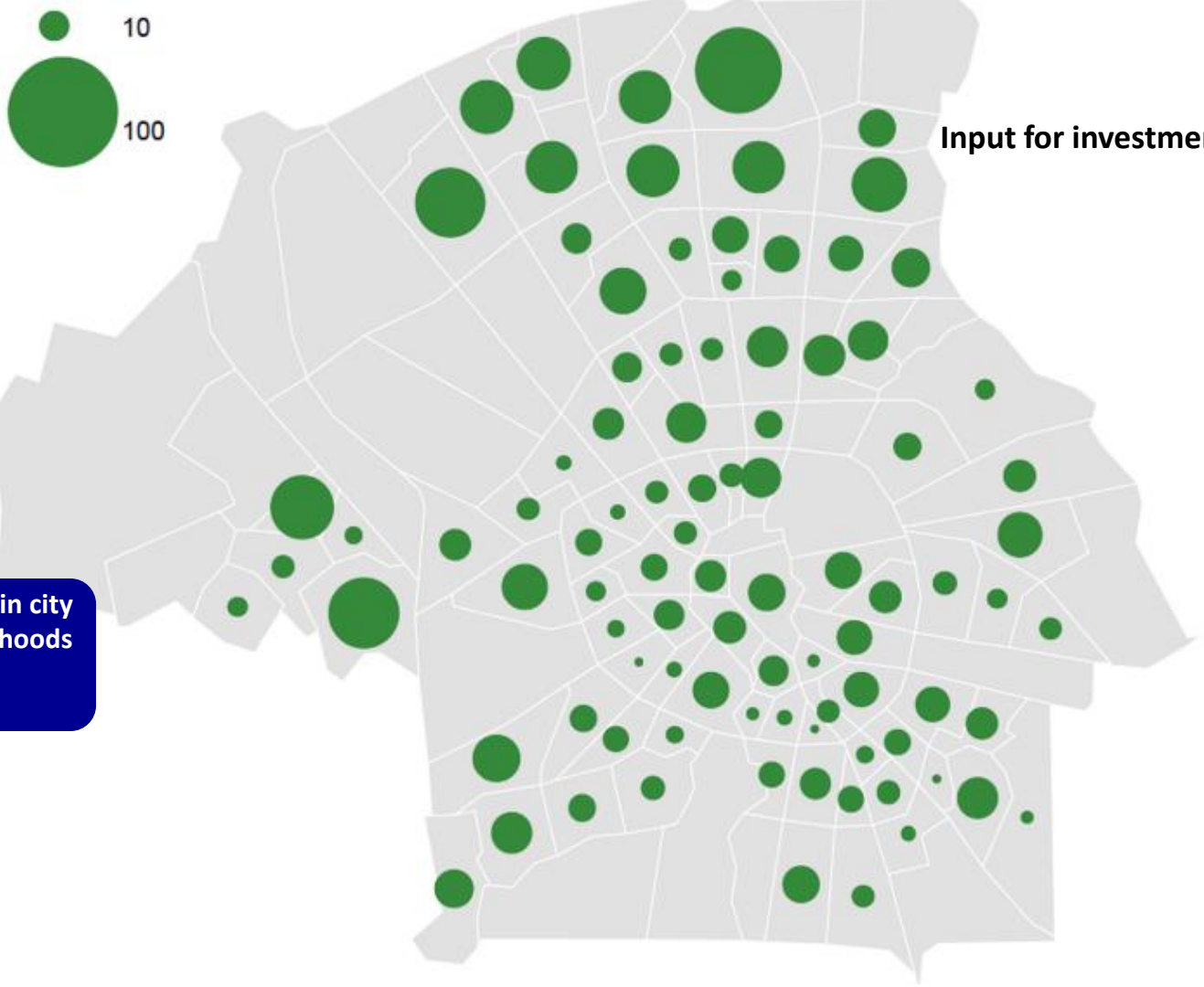


Turnover restaurants

EINDHOVEN

Turnover restaurants → ***better understanding creates input for policy-making in organizing events***





Input for investment-decisions

Electrical cars in city neighbourhoods

Creating investment profiles for cities

Working in the internet economy

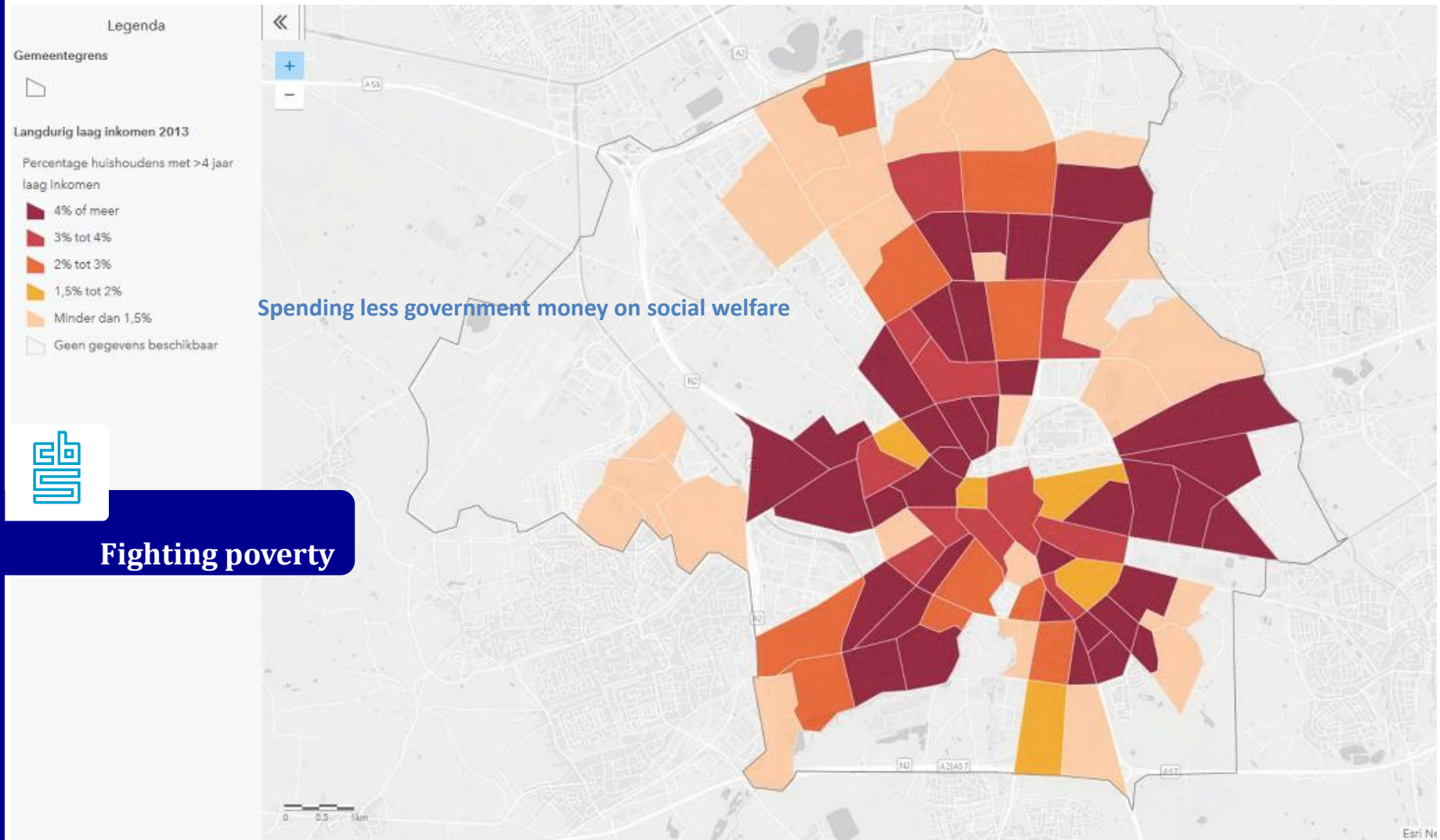
7 800 employees in Groningen province

85% in Groningen City

Urban Data Center / Regio Groningen

Fighting poverty

Spending less government money on social welfare



City of The Hague spends €70 million on fighting poverty

In 2017 the City of The Hague spends € 68,8 million on fighting poverty, almost € 5 million more compared to 2016. Equal chances for children, participation of senior citizens, combatting debts and fighting poverty are the pillars under the 2017 city-policy

Poverty-trap.

The Hague offers financial support to citizens that are trapped in poverty. Also the **working poor** could benefit from this financial support but the city does not have any information on this group of citizens. Through the collaboration with CBS the city gets a better understanding of this group and will be able to support them better and prevent theim from entering into the poverty-trap. This is good poor people, for society and it creates financial savings in the budget of the city.

Example: fighting poverty in the City of The Hague

Fighting poverty Datacamp !

Slotmanifestatie van het Datakamp over armoede

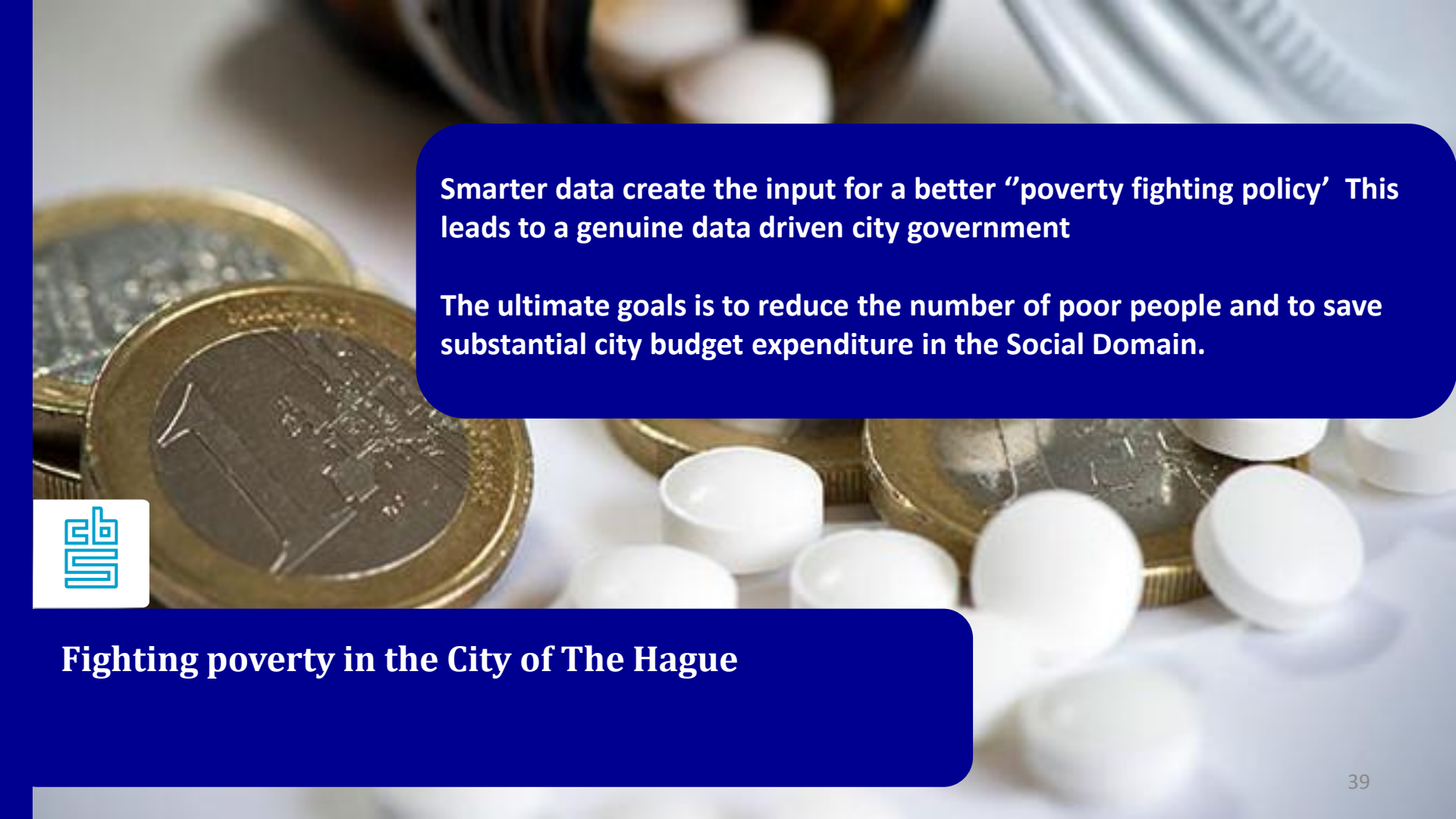
Presentatie resultaten van 7 teams en discussie met wethouder Baldewsingh van Den Haag en plv. DG CBS Bert Kroese

Datum/Tijd Woensdag 29 maart 14.30 – 17.00 uur

Plaats Tinbergenzaal bij het CBS Den Haag

Aanmelden geert-jan@digitalestedenagenda.nl

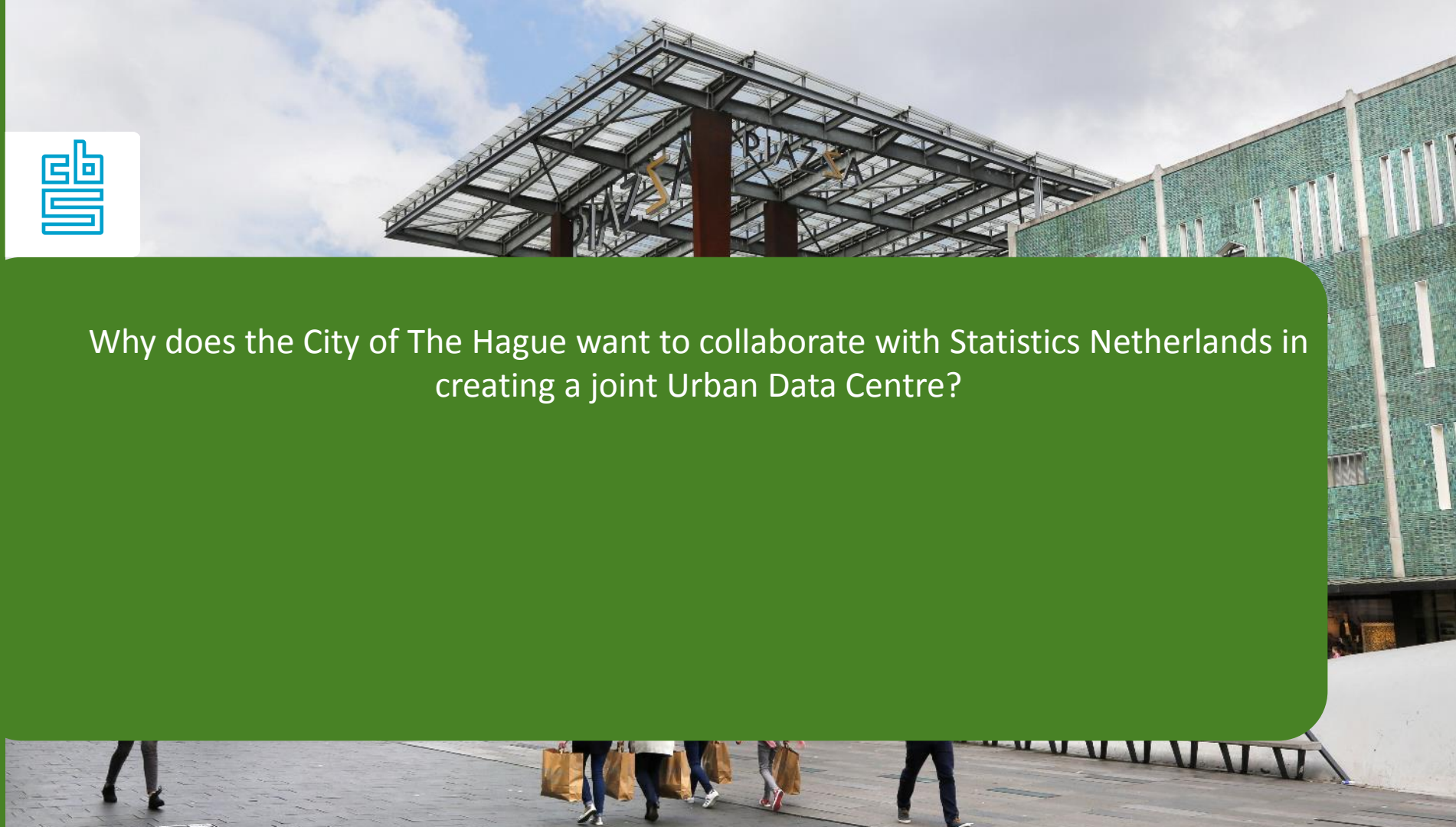
Den Haag Centre for BOLD Cities



Smarter data create the input for a better ‘’poverty fighting policy’ This leads to a genuine data driven city government

The ultimate goals is to reduce the number of poor people and to save substantial city budget expenditure in the Social Domain.

Fighting poverty in the City of The Hague

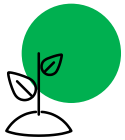


Why does the City of The Hague want to collaborate with Statistics Netherlands in creating a joint Urban Data Centre?

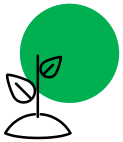
4 Advantages of an URBAN DATA CENTRE

City of The Hague

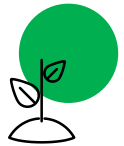
Potential policy-research topics



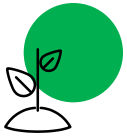
Poverty



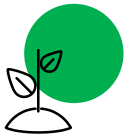
Big data



Open Data



Sustainability



Resilience & security

CBS URBAN DATA CENTRE The Hague

Efficiency gain

Internal research *1150*

External research *1800*

Costs Human Resources *3200*

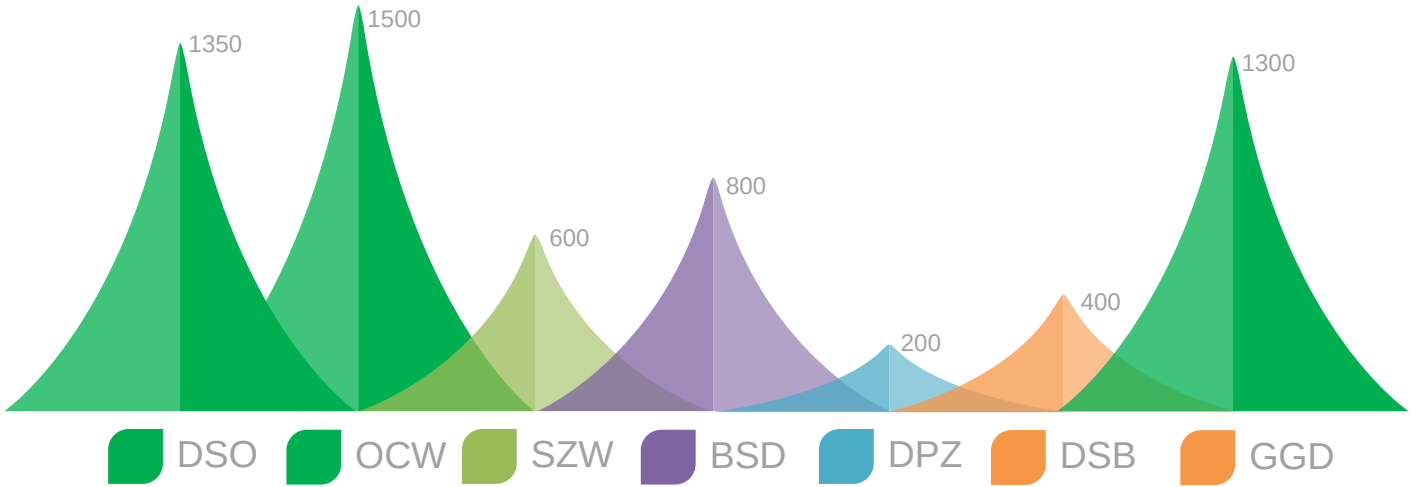
Efficiency gain

3-5%

€

4-6M

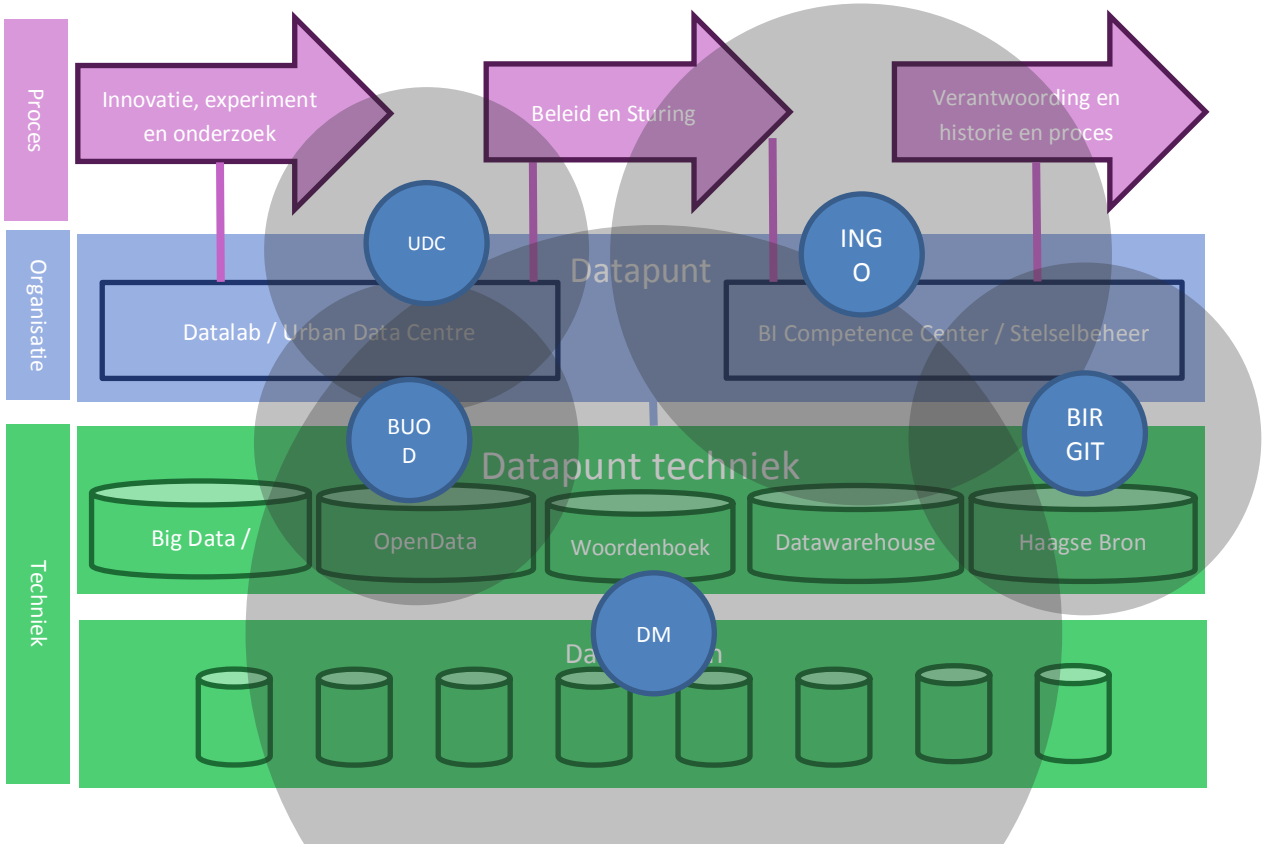
Total research budget City of The Hague

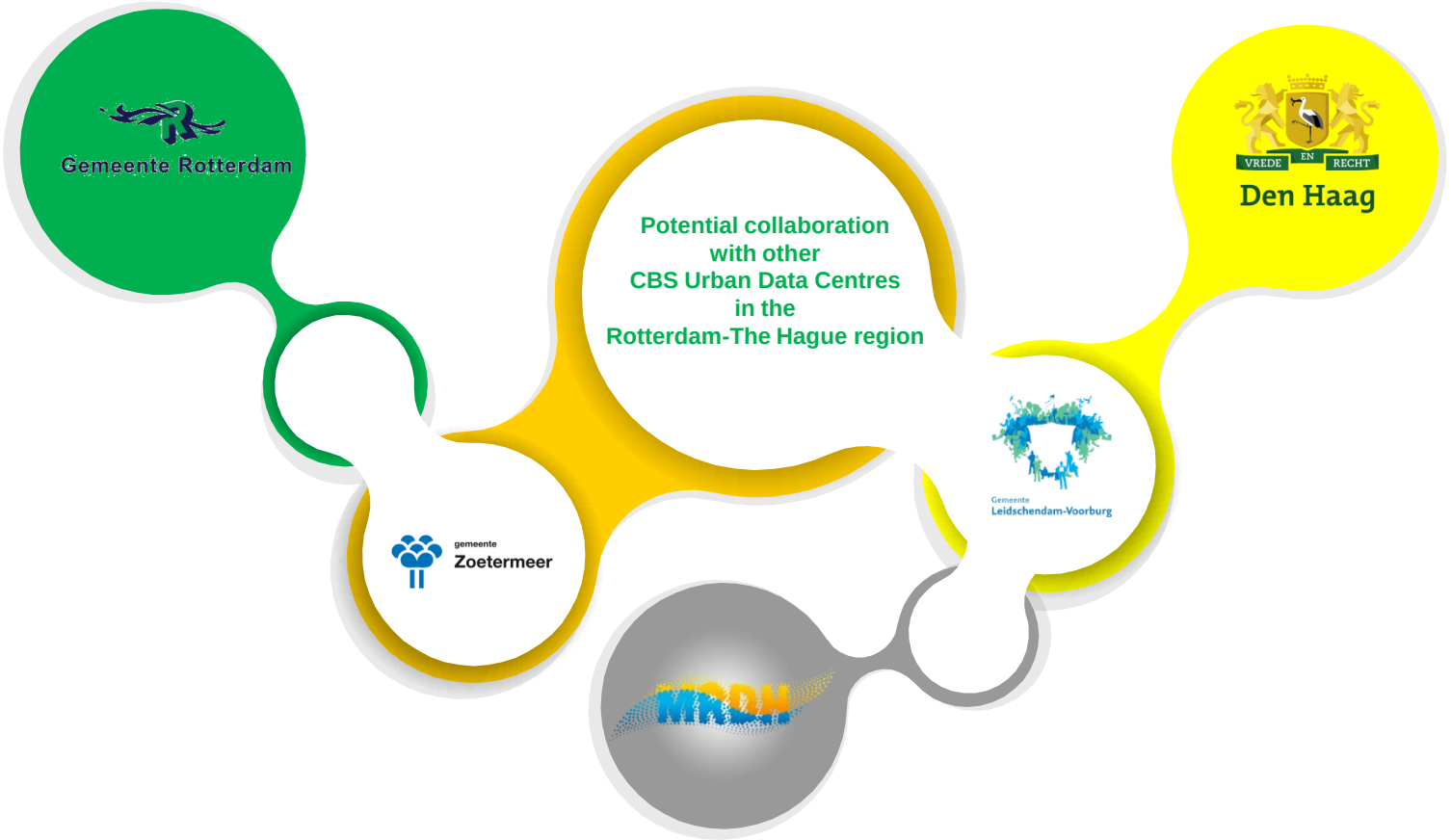


3-5%

Estimated efficiency gain

The Urban Data Centre in the context of The Hague data infrastructure




Gemeente Rotterdam
Potential collaboration
with other
CBS Urban Data Centres
in the
Rotterdam-The Hague region
VREDE EN RECHT
Den Haag
gemeente
Zoetermeer
Gemeente
Leidschendam-Voorburg
MRDH

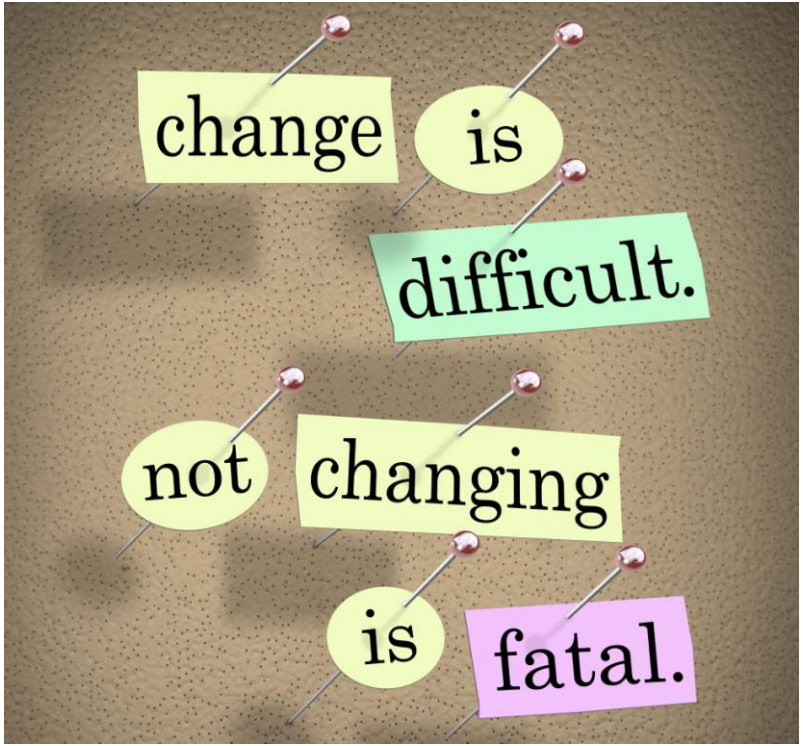
JUNE 23rd 2017

Announcement of the
CBS Urban Data Centre
The Hague
June 23rd 2017
during the

UN-conference Public Service Day 2017

at the
World Forum The Hague

The joint CBS URBAN DATA CENTRE The Hague Team



CBS Urban Data Centres: ***challenges and solutions***

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CBS Urban Data Centres: *challenges and solutions*

CBS Urban Data Centres: *challenges and solutions*

CBS Urban Data Centres: ***challenges and solutions***

How to start ?

CBS Urban Data Centres: ***challenges and solutions***

or ?

CBS Urban Data Centres: ***challenges and solutions***

CBS Urban Data Centres: *challenges and solutions*

The *Pilot* Project

CBS Urban Data Centres: ***challenges and solutions***

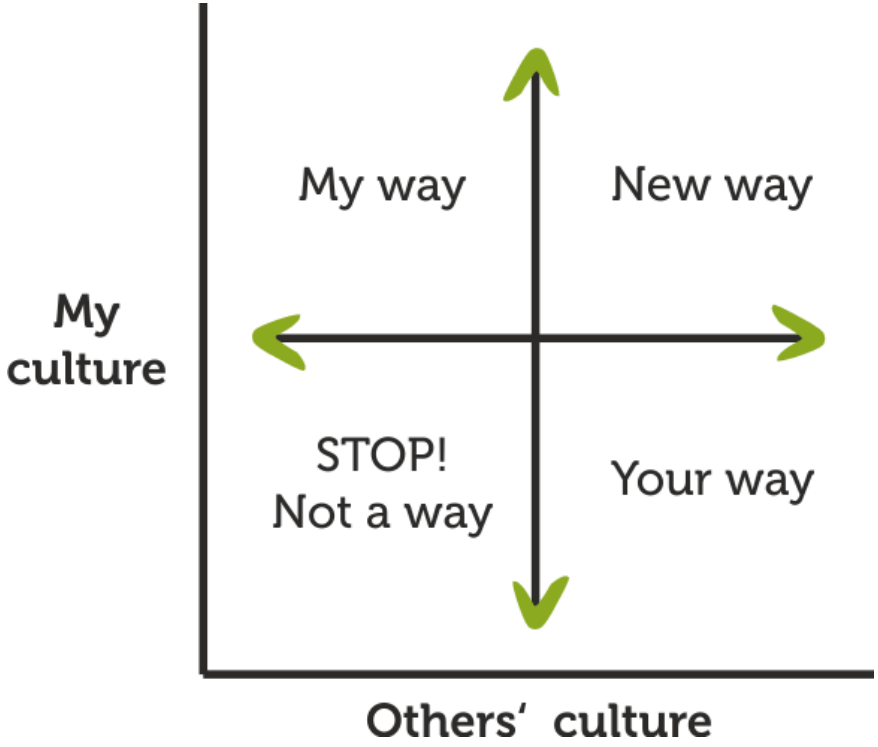
CBS Urban Data Centres: *challenges and solutions*

How to start ?

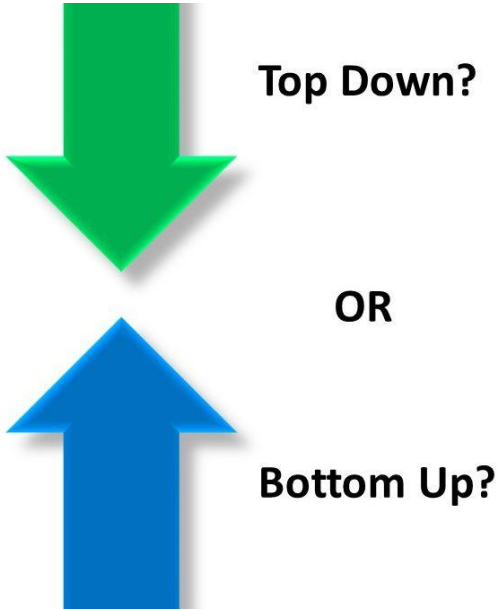
CBS Urban Data Centres: ***challenges and solutions***

Connecting different organizations and cultures

CBS Urban Data Centres: *challenges and solutions*



CBS Urban Data Centres: ***challenges and solutions***



CBS Urban Data Centres: *challenges and solutions*

CBS as a threat for local researchers?

CBS Urban Data Centres: ***challenges and solutions***

Focus on research or wider perspective?

CBS Urban Data Centres: ***challenges and solutions***

Budget?

CBS Urban Data Centres: ***challenges and solutions***

How to organize ?

CBS Urban Data Centres: *challenges and solutions*

Conclusions and recommendations

CBS Urban Data Centres: ***challenges and solutions***