

kadaster



Dick Eertink 3 February 2022

# Open Data

## Experiences and challenges



- Introduction
- Open data policy
- Experiences with open data
- Challenges

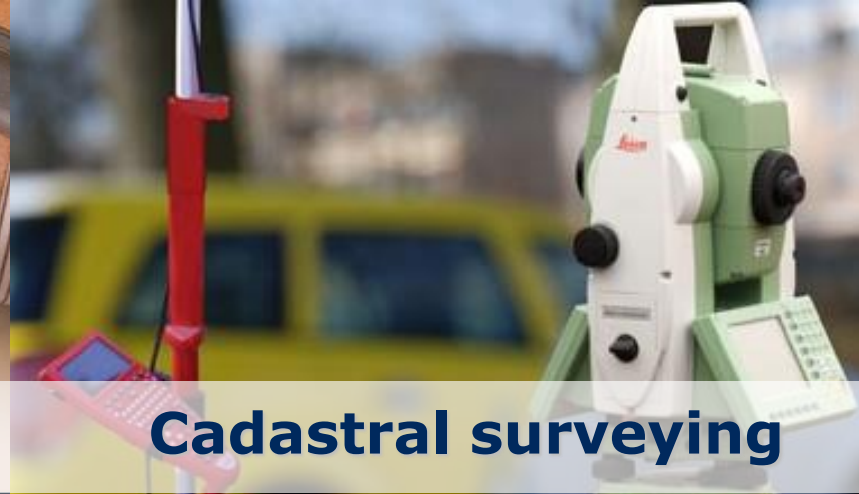


# Introduction





**Land registry**



**Cadastral surveying**



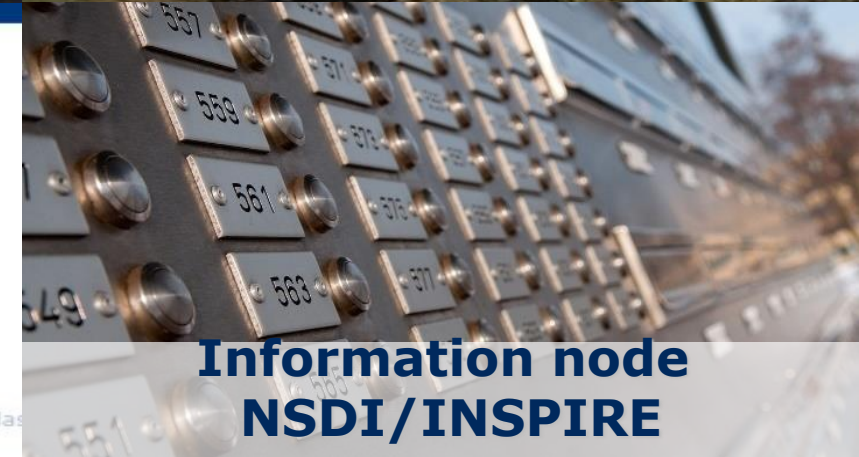
**Land consolidation**



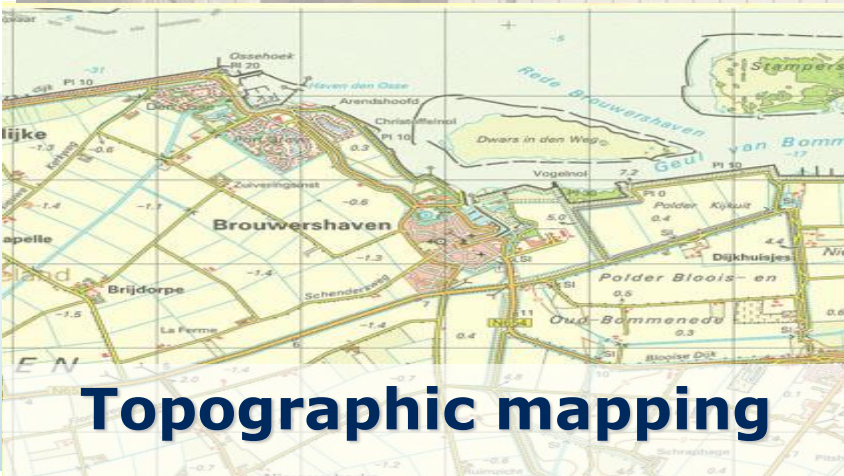
**Key registers**



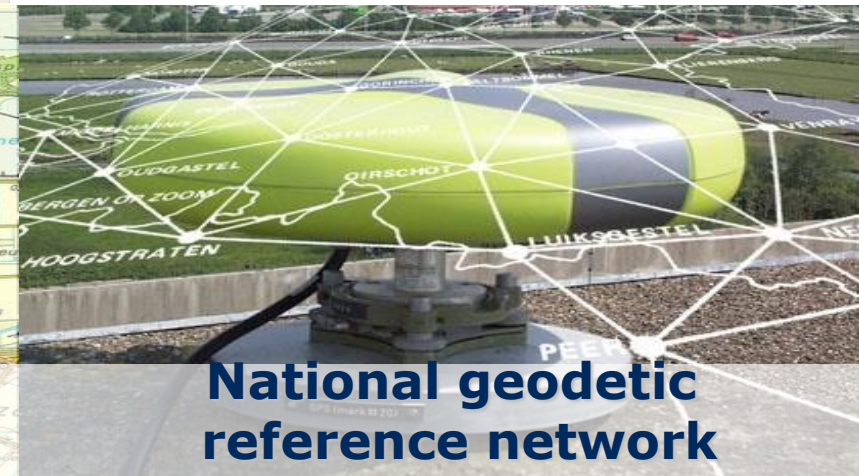
**Information services**



**Information node  
NSDI/INSPIRE**



**Topographic mapping**



**National geodetic  
reference network**



**Cables & pipelines**

# Open Data Policy



# Developments in regulations

- 2003: Public Sector Re-use Directive (EU)
- 2006: INSPIRE Directive (EU)
- 2011: Policy paper on re-use and open data  
First release of [data.overheid.nl](https://data.overheid.nl)
- 2013: Open Data Action Plan
- 2015: PSI Re-Use Directive
- 2019: Open Data Directive

General trend:

- ▲ From passive publicity to active publication
- ▲ From cost recovery to zero cost approach



# Open data policy

Data can be open, unless...

- It involves personal data or third party rights
- It impacts security of tenure
- It impacts cost recovery

(Vision on open data, January 2012)

# Steps in open data

2011: First release of PDOK, free viewing

2012: Topographic data, Addresses/Buildings

2013: Administrative borders, Spatial plans

2016: Cadastral parcels/Cadastral map

2020: 3D topography and buildings

Plus many more datasets from other data providers through PDOK.NL



# *Not open*

- Land Registry data (rights, right holders, transactions)
- Valuation of real property
- Cable and pipeline information
- Real time positioning



# Experiences with open data



# What were our expectations?

- ▲ Increased use of data
- ▲ Improved visibility
- ▲ Increased demand for paid data products



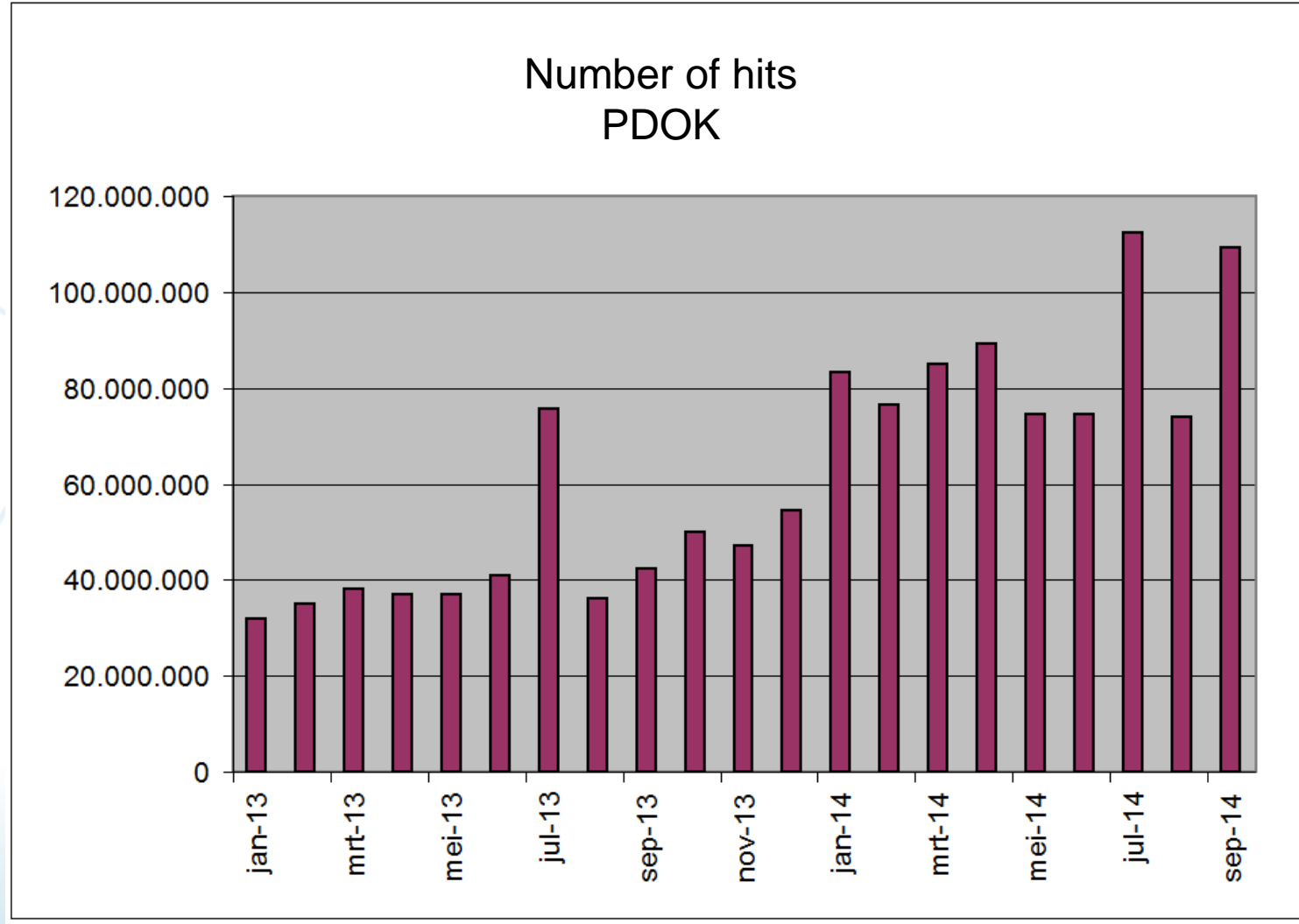
# What were our concerns?

- ▲ Authenticity of information
- ▲ Personal data protection
- ▲ Impact on existing market interests
- ▲ Sustainability of funding
- ▲ Quality and innovation





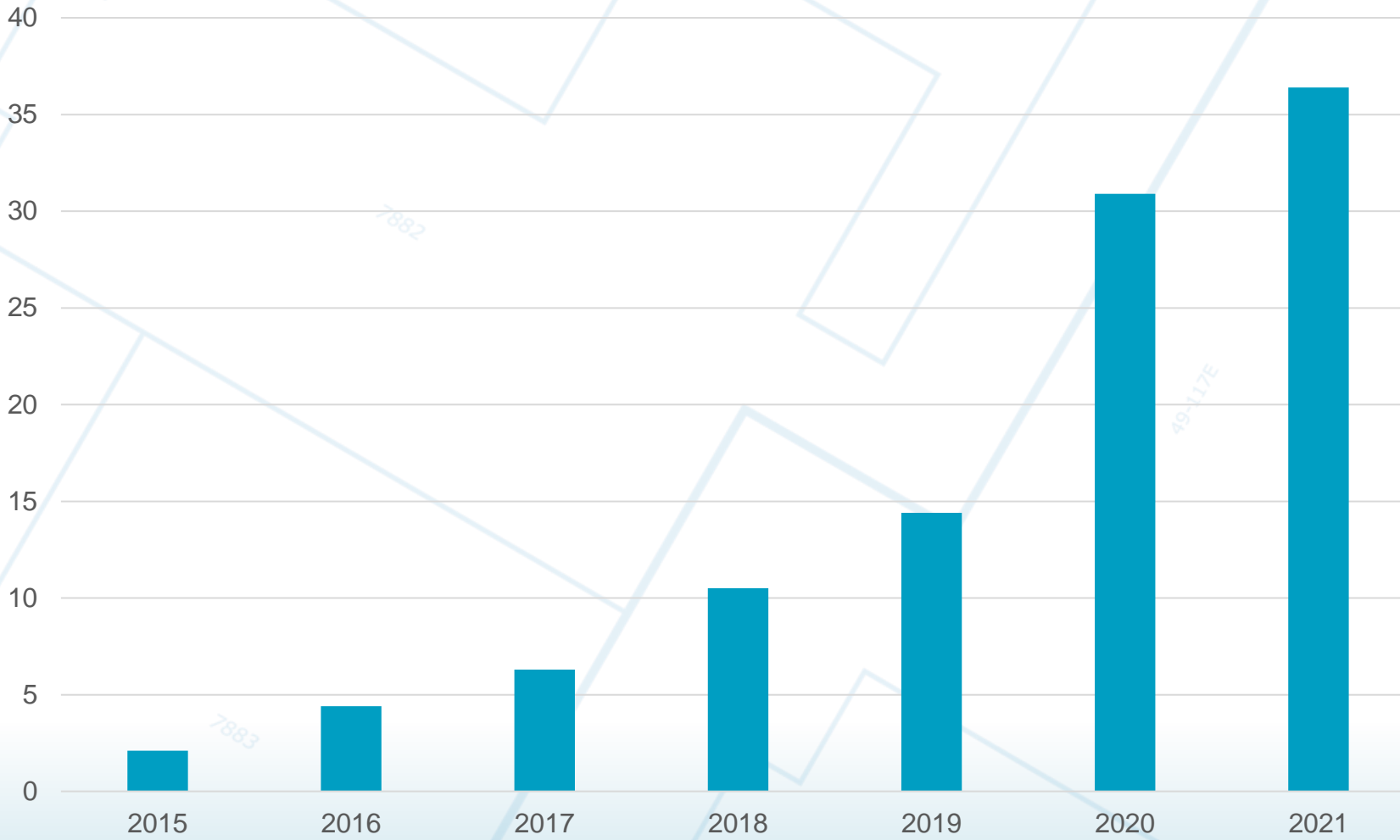
# Increased usage...





# Still increasing...

Number of hits PDOK (x 1.000.000.000)



# Improved visibility?





## Expectations and outcomes



Increased use of data



Improved visibility



Increased demand for paid data products



Authenticity of information



Personal data protection



Impact on existing market interests

Sustainability of funding

Quality and innovation

Coming up later

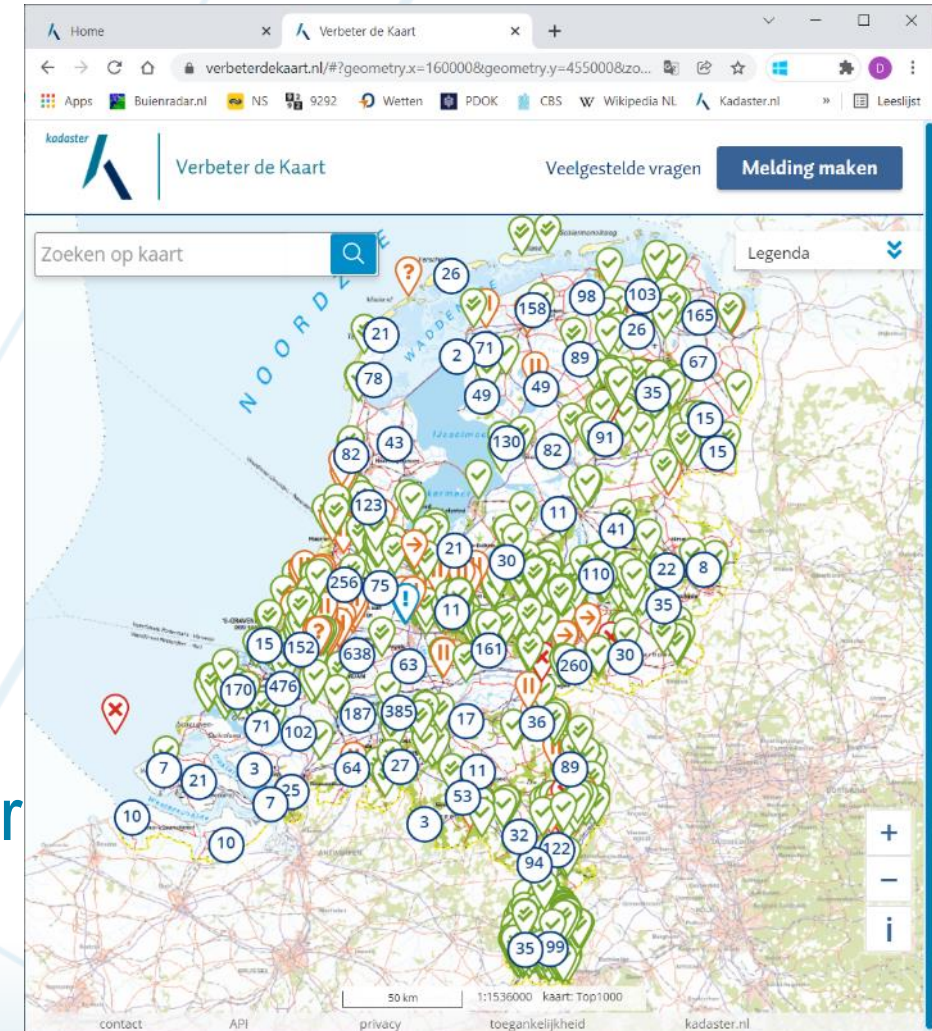






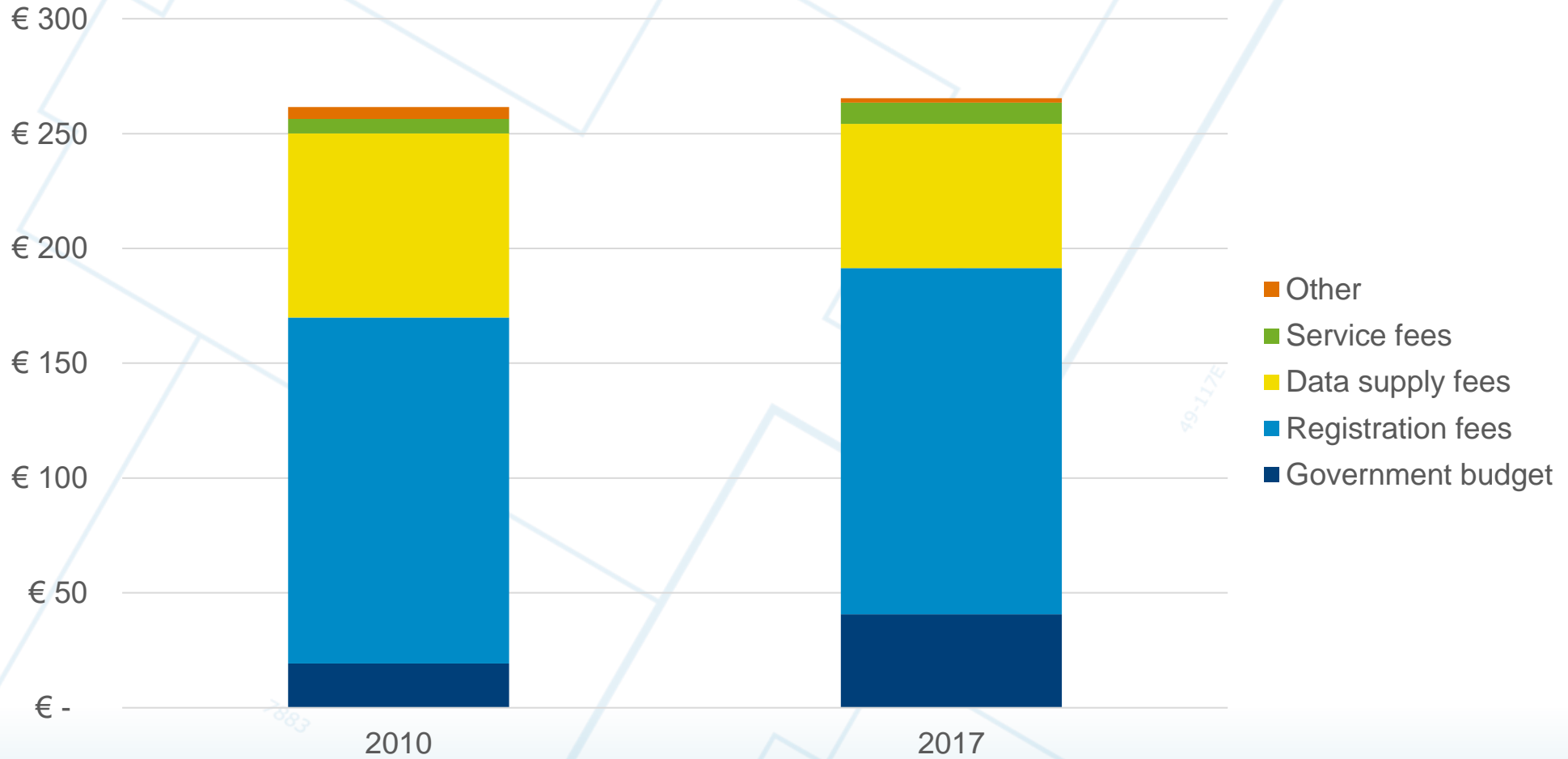
# Impact on quality and innovation

- ◆ No issues with private organisations claiming their right for innovation
- ◆ Data quality improvements from increased user feedback
- ◆ Quality of service lacks user feedback
- ◆ More innovation of processes and products because sharing data is easier



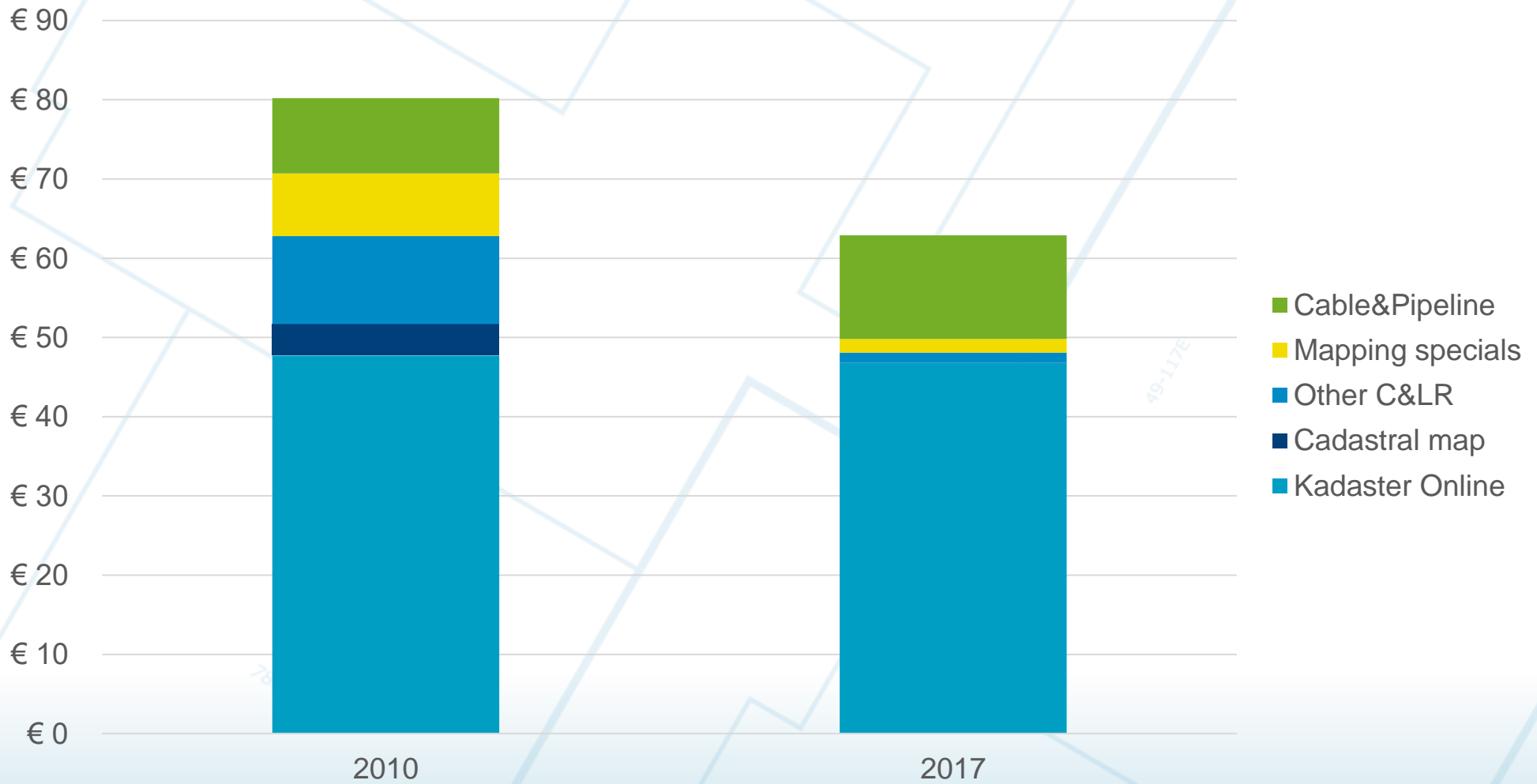


# Sources of income (EuroSDR questionnaire)



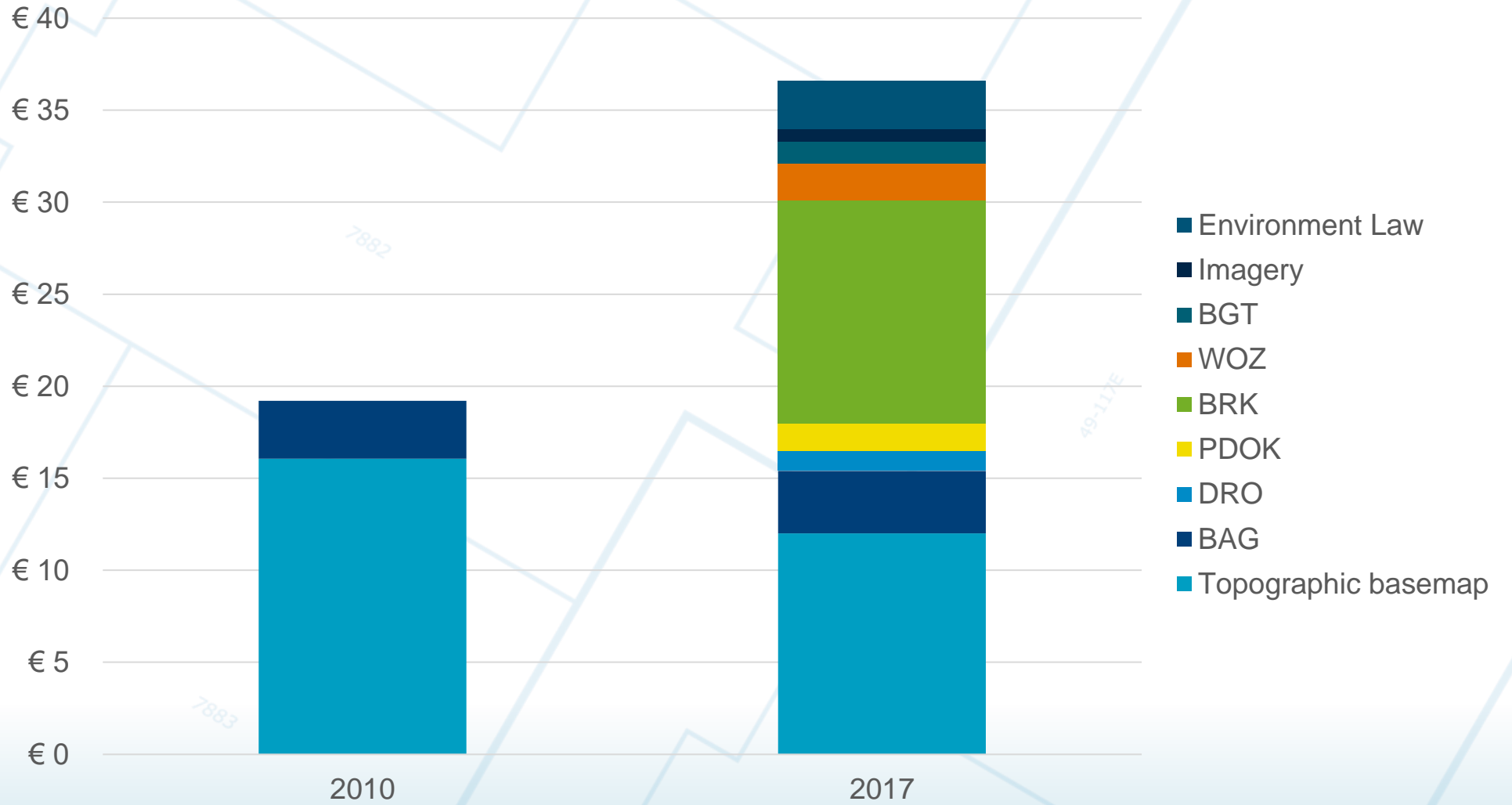


# Income from data supply fees





# Income from government budgets



# Loss of income caused by open data

## Topographic Basemap (2012)

- ▲ Loss of income: € 0,8 M
- ▲ Budget compensation: € 0,3 M

## Cadastral map (2016)

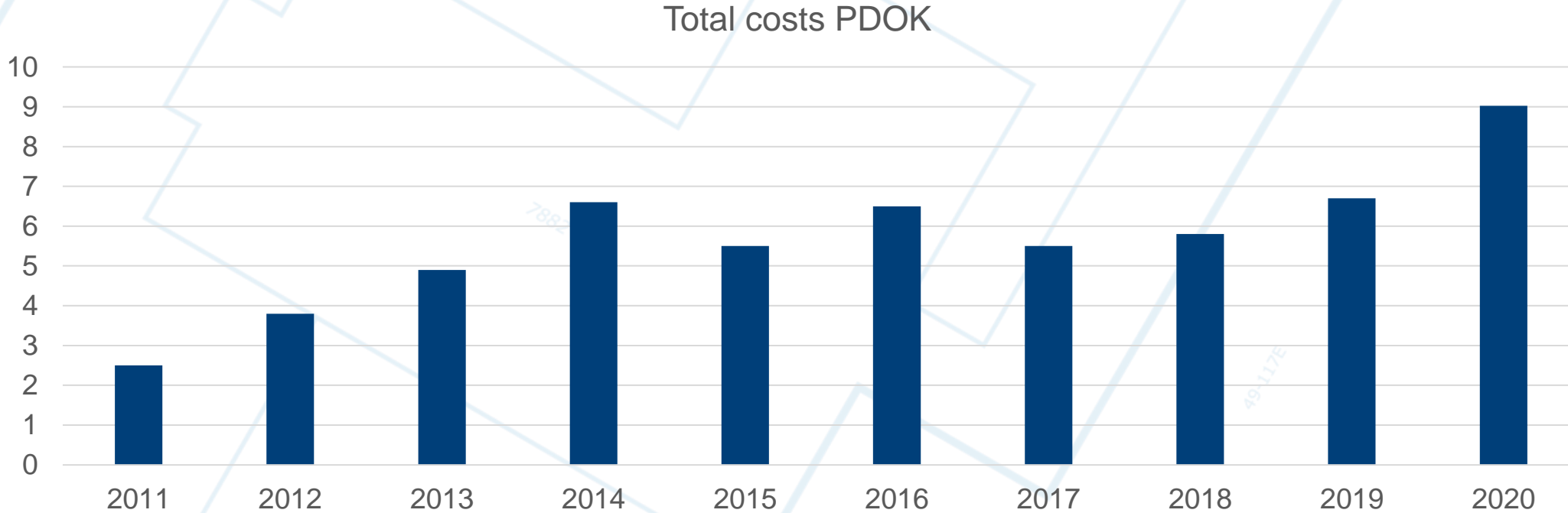
- ▲ Loss of income estimated: € 2 - 5 M
- ▲ Loss of income realised: € 2 M
- ▲ No decrease in numbers of paid information products
- ▲ No compensation in budgets

# Our challenges





# Managing costs



- 2011: Sharing costs (cooperative model, centralized)
- 2015: Outsourcing
- > 2020: Cloud services









PDOK is the leading platform for high-quality geodata in the Netherlands.

Visit us at [www.pdok.nl](http://www.pdok.nl)

## Services

- PDOK viewer
- Location Server
- Atomfeed and Zip files
- Standard format WFS, WCS, WMTS and WMS
- RESTful API's
- Linked data RDF

## Availability

99,71% uptime

5 interruptions (> 29 min)

## Customers



Over 450 governments registered at PDOK



More than 15.000 websites use open GEO data from PDOK



PDOK leads GEO data community

## Metadata



National GEO data register is the guide for geodata in the Netherlands

## Data

3D  
Aerial photo  
Aim valuation  
Building & Adresses  
Cadastral parcels  
Energy

Height  
Hydrography  
Municipalities  
Nature & Environment  
Provinces

## New in 2019

- Introduction of services WFS 3.0 and vectortiling
- 27 new datasets
- National GEO data register update according to ISO standards
- International relations with Belarus, North-Macedonia and Saint Lucia

## INSPIRE



European distribution of INSPIRE datasets

Availability 99.5 %  
"INSPIRE proof"

## Facts & Figures



Most popular dataset 'BRT achtergrondkaart'



192 datasets  
505 services  
103 INSPIRE services



PDOK datasets  
14.4 billion hits



National GEO data register  
32.9 million hits



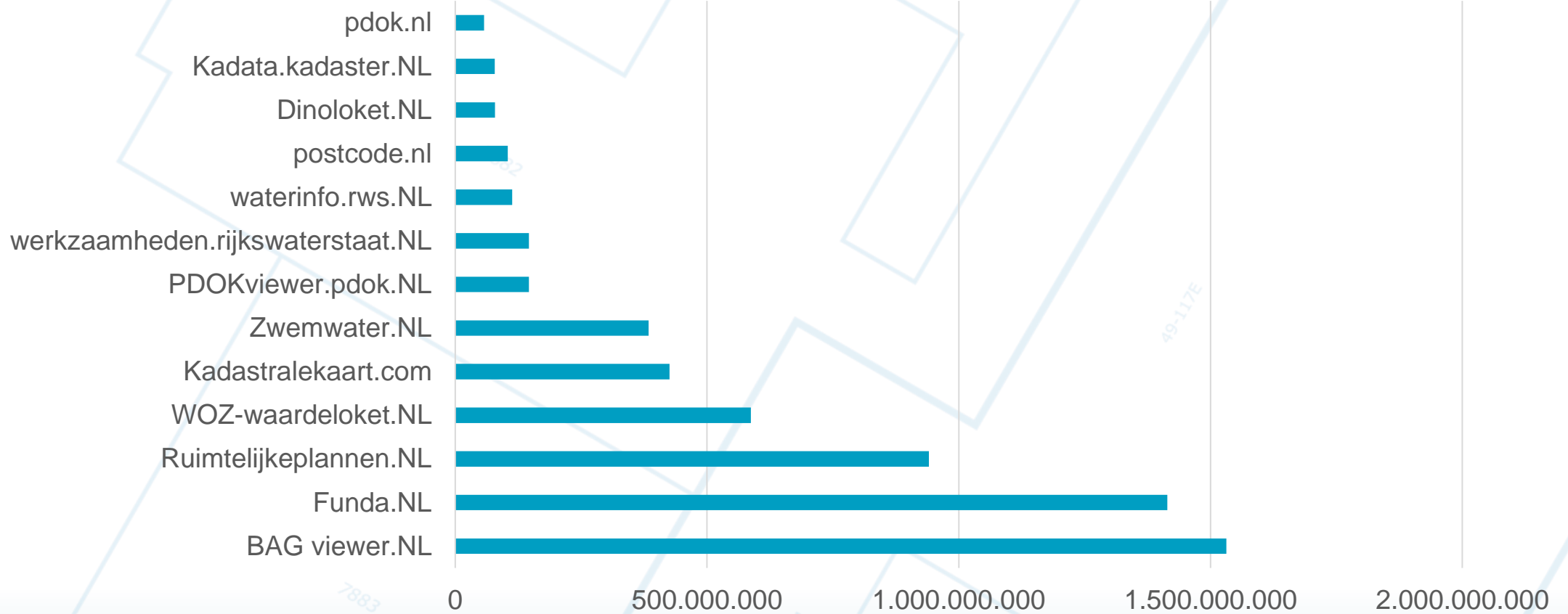
46 Mentions on Twitter



459 Geoforum topics



# Largest PDOK users (2019)



# Current challenges

Sustainability of services providing open data and pricing of large-scale use

Engaging users in quality cycles

Governance of the platform / NSDI in general