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From foundation to future: the Dutch NSDI, development and future challenges

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09-10-2026

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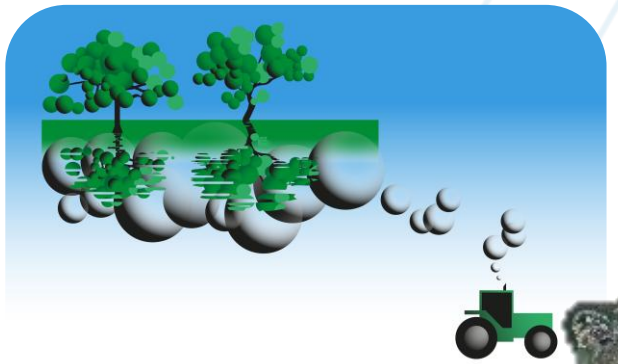
The Netherlands

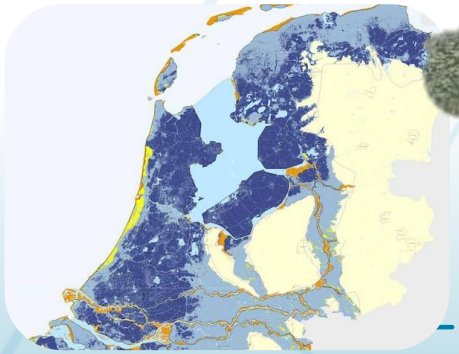
41.000 km^2
18Mln inhabitants

12 Provinces
342 Municipalities
21 Water boards
Ministries
…

How do we plan for our future?







Onder zeeniveau

Back to the future (2003)

Objectives:

- a government that does not ask for the known
- a government that is citizen/business-oriented
- a government that does not allow itself to be fooled
- a government that knows what it is talking about
- a government that has its affairs in order and does not cost more than necessary.

Guiding principle: collect once – use many times

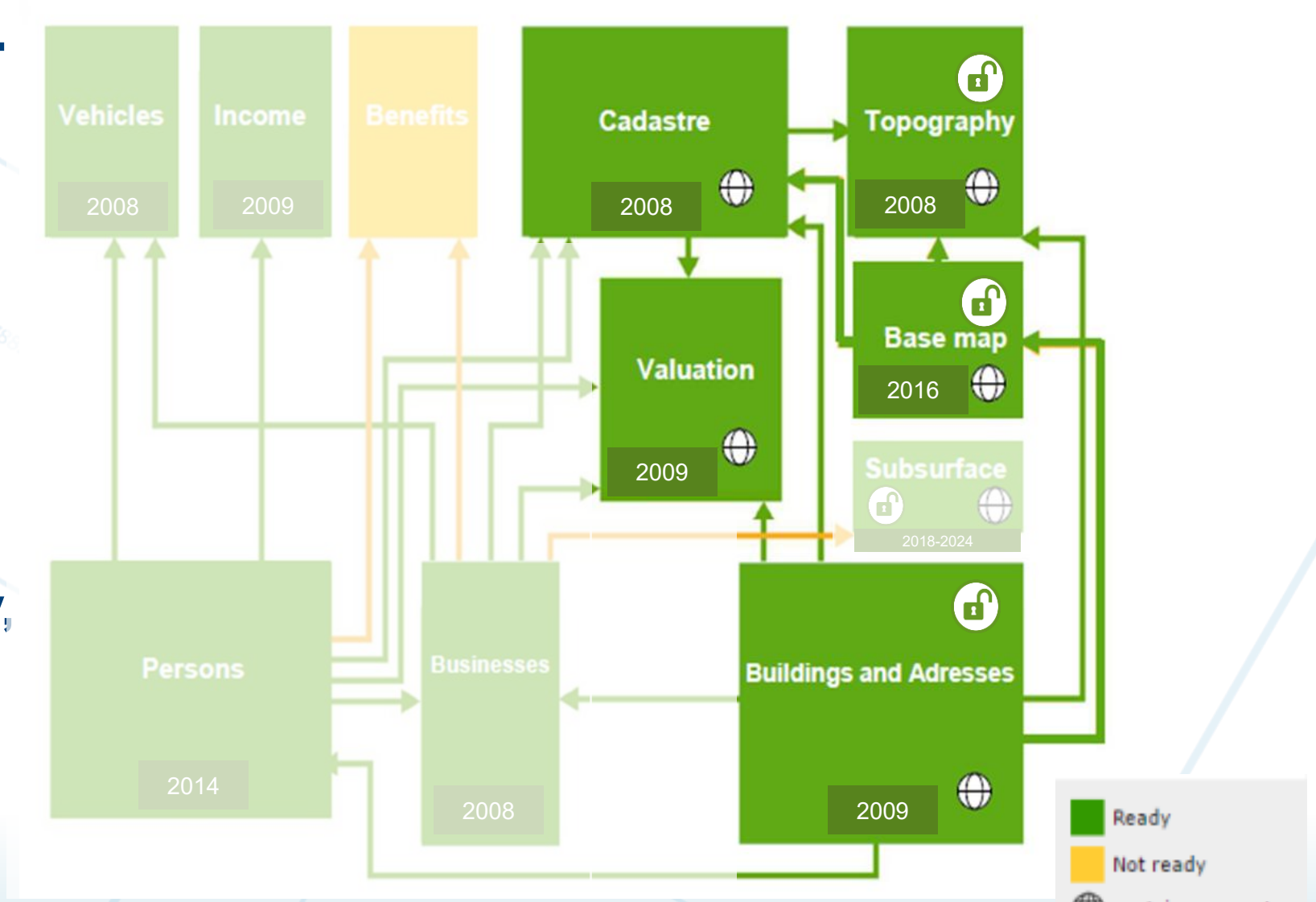
Requirements for a Key Register

1. Each Key Register is vested in law.
2. Public sector organisations are obliged to use the key register (collect once, use many times).
3. Public sector users are obliged to report errors or other irregularities.
4. Liability is explicitely defined.
5. Financing is arranged.
6. Content of the datasets is well defined and catalogues are available.
7. Procedures and standards for data contribution and distribution are clear.
8. Accessibility is guaranteed.
9. A strict regime for Quality Assurance is in place.
10. Users have a binding influence on policies concerning the key register.
11. Relations within the system of Key Registers are clearly defined and documented
12. Control and responsibilities are with a public body; political ownership is held by a minister.

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2 decades on…

Key registers are the backbone for shared use, connectivity, and single source of truth within the public sector



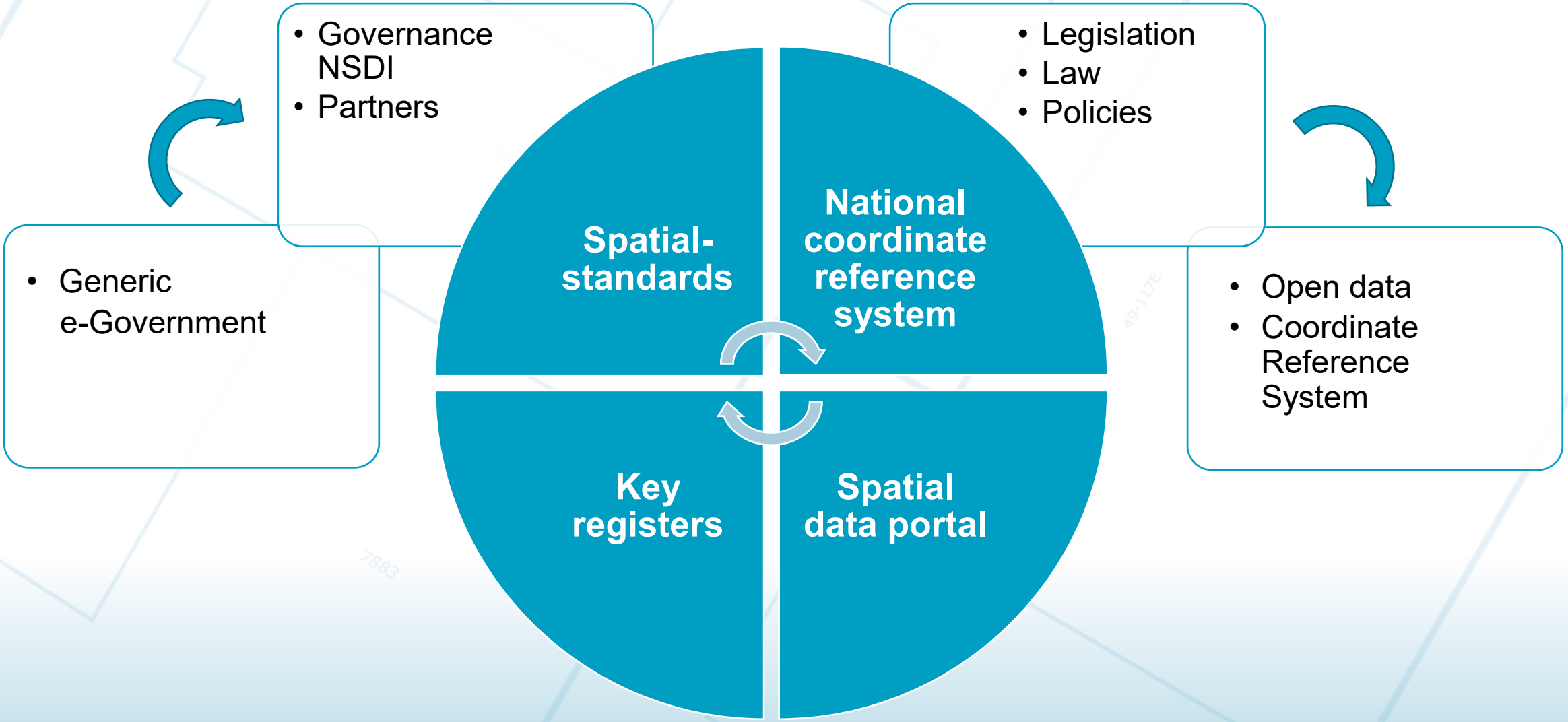
2 decades on…

- 10 key registries operational and intensively used
- Spatial (geo- and LA-) registrations well connected and mature
- Geospatial sector is a front runner - location is a primary connector
- Most Geodata is open data (Cadastre/LR is open access)
- Governments and Agencies are in a constant conversation
- Increasing demand for cross-sectoral information

Kadaster is a key player

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From datasets to National Spatial Data Infrastructure



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Extensive use of data National GeoData Portal

pdok

FACTSHEET 2025

PDOK is the leading platform for Dutch high-quality geodata.

Visit us at pdok.nl

Services

- PDOK Viewer
- Location Server
- Standard formats:
  (OGC) webservices,
  (OGC) API's en
  ATOM downloadservice

Power of PDOK



Facts & figures

Most popular datasets
BRT Achtergrondkaart, BGT, BRK and PDOK Aerial photos

222	826	120
datasets	services	INSPIRE services

Nationaal Geodata Register
40 million hits

PDOK datasets
30,8 billion hits

53 PDOK tweets

183 Geoforum topics

Data

3D Buildings	Drone no-fly zones	Spatial planning
3D Terrains	Energy	Topography
Addresses & buildings	Height	Transport networks
Administrative areas	Nature & Environment	Underground
Aerial photos	Provincial data	Waterways
Cadastral parcel	Railways	Water infrastructure
Cycling/walking routes	Road networks	World heritage

New

- National Land Use Database Netherlands (or: Land Use Database of the Netherlands – LGN)
- Environmental Noise Directive of the Ministry of Infrastructure and Water Management (IenW) (INSPIRE harmonised)
- Areas with Natural Risks – Floods – Risk Area – Floods Directive (FD) (INSPIRE harmonised) (Floods Directive = EU Directive 2007/60/EC, often abbreviated as ROR in Dutch = Richtlijn Overstromingsrisico's)
- Areas with Natural Risks – Floods – Observed Event – Floods Directive (FD) (INSPIRE harmonised)
- BRO dataset Geological Borehole Investigations (BHR-G)
- BRO dataset Environmental Soil Investigation (SAD) available at PDOK
- BRO dataset Mining Construction (EPC)
- Implementation of OGC API Features for data providers

Availability

99,90 % uptime

2 interruptions (> 30 min)

Metadata

NGR Nationaal Georegister

National Geodata Register is the guide for geodata in the Netherlands

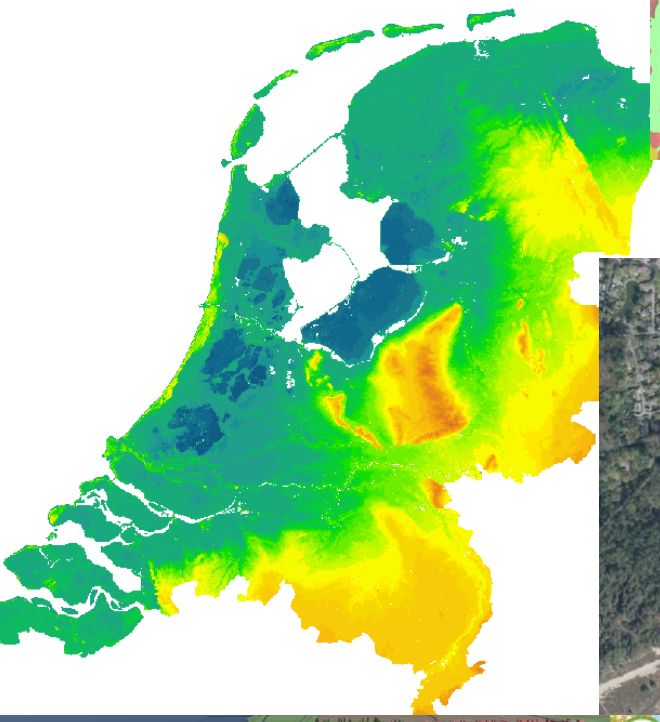
INSPIRE

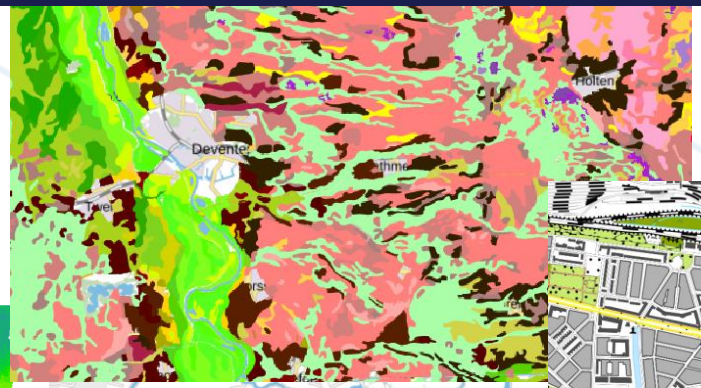
European distribution of INSPIRE datasets

Availability of **99,90 %**
'INSPIRE conform'

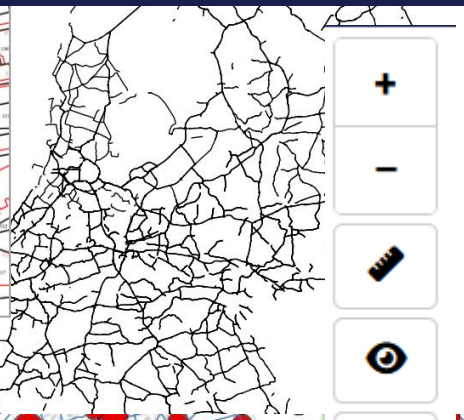
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PDOK





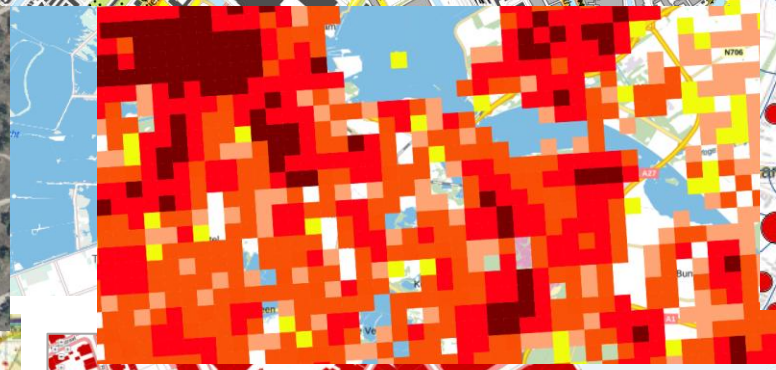














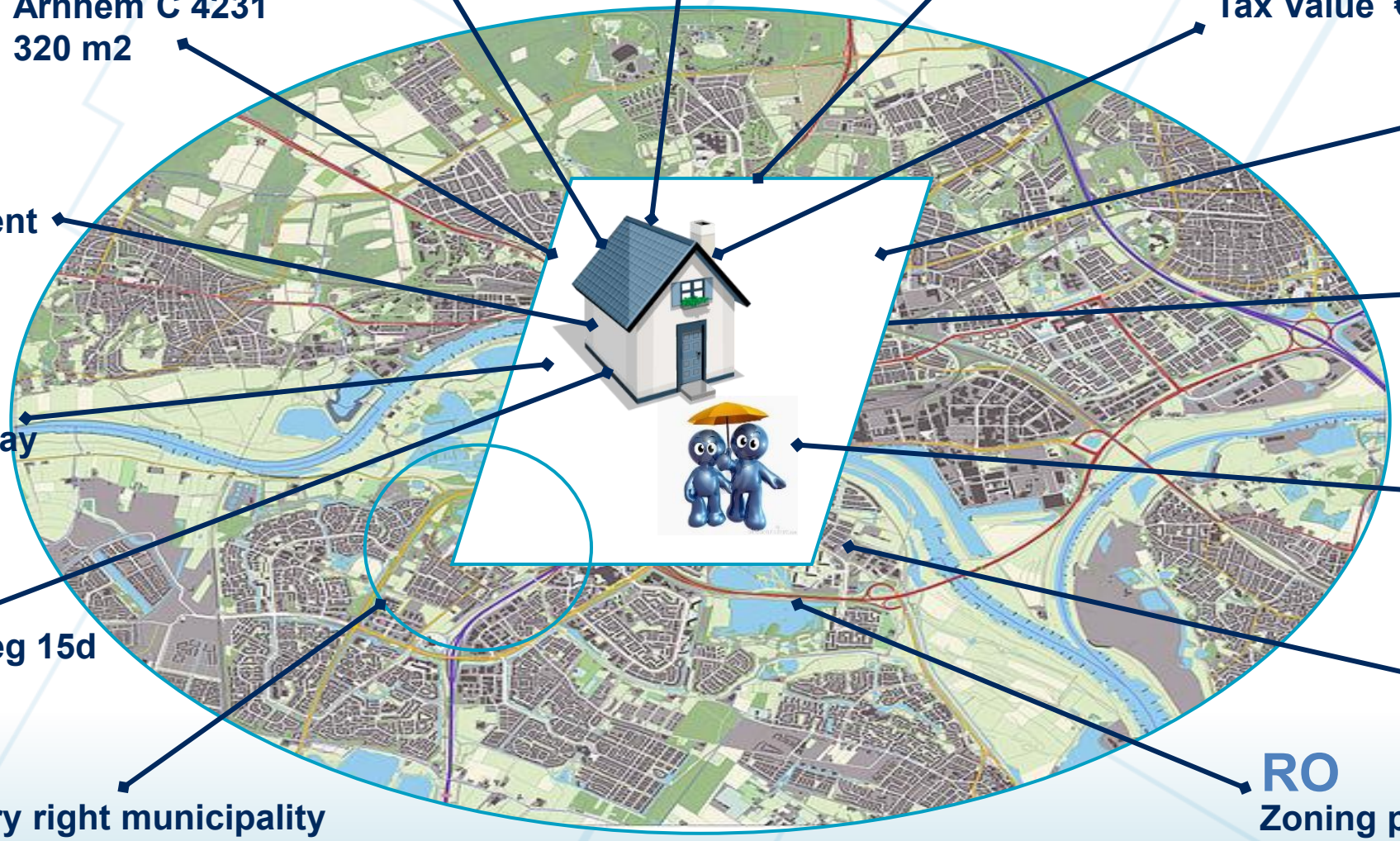








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BAG
450 m3
1923

EPC
Energylabel C

BRK
Sold 1-7-2003 sales price € 230.000

BRK
Arnhem C 4231
320 m2

WOZ
Tax Value € 385.000

BRK
Long lease

BRK
Monument

NHR
RABO mortgage
€ 220.000

BRK

BRK
Right of way

BRP
Dhr. Jan de Jong
15-05-1956

BAG
Stationsweg 15d
Address

BRT
Urban area
Height above SL 6m

WKPB
Preliminary right municipality

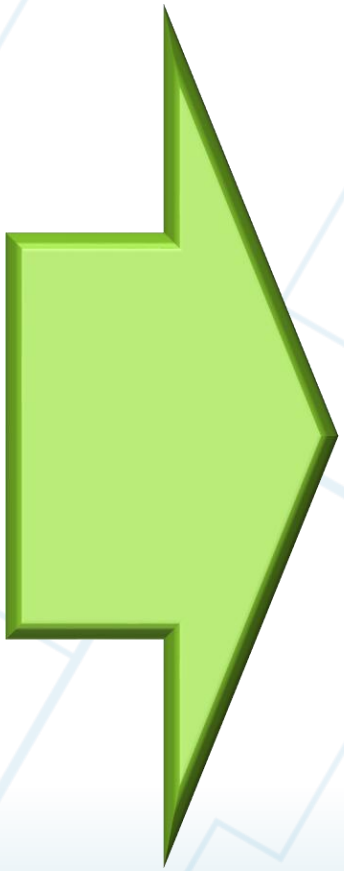
RO
Zoning plan

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Our future NSDI

From

- finding datasets
- downloading data
- individual registers
- geo-specific technology
- data created for a particular government process



To

- combining data
- APIs and machine-to-machine access
- connected/federated data
- integration with the wider data ecosystem
- data usable for multiple societal challenges

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Our future NSDI - Policy on spatial data

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

A geo-view on the Netherlands

Together with our partners, we provide insight into the Netherlands with high-quality geo-data. In this way we enable data-driven policy, governance and implementation - and numerous solutions for third parties.

Grip on the major societal challenges

We enable data-driven working across organizational boundaries

Data foundation

We realize a connecting geo-data foundation

Related data

We create an integral and rich picture of our living environment

Sharing data

We ensure an optimal flow of the geo-data

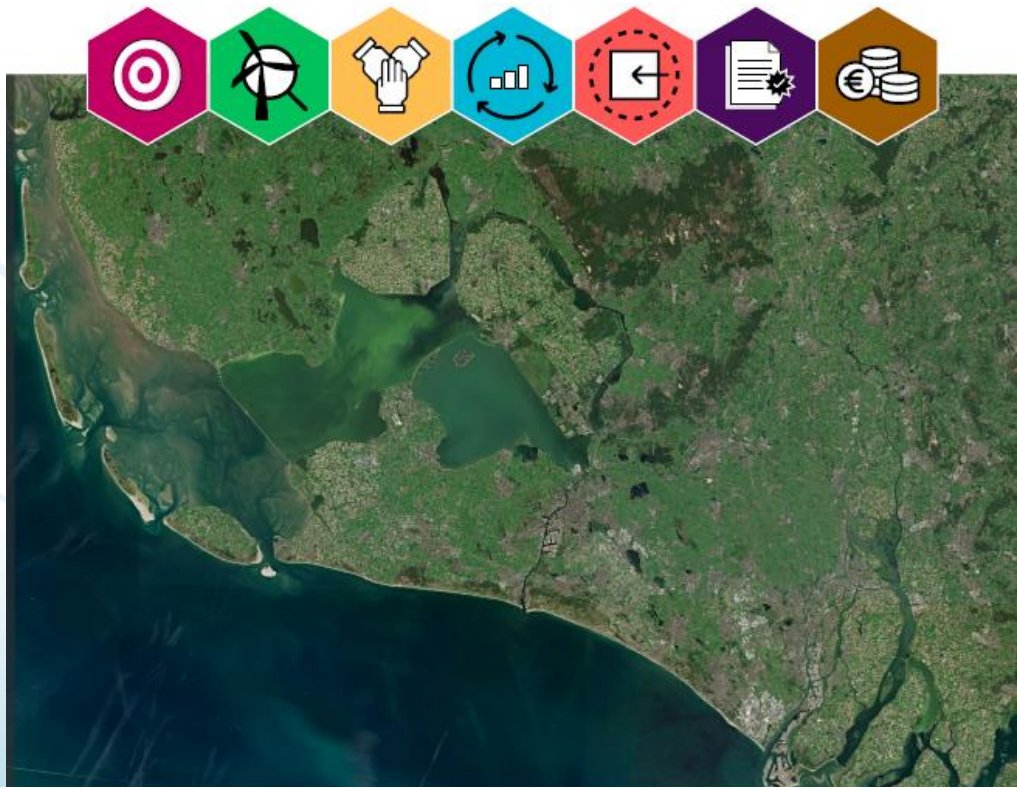
Conditions for success

We create the conditions for a future-proof data foundation

Meerjarenvisie Beraad voor Geo-informatie (2024)

Zicht op Nederland

Samen datagedreven werken aan de fysieke leefomgeving



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Our future NSDI

NSDI 1.0

Make geospatial data available

NSDI 2.0

Make geospatial data interoperable and easy to combine

Data ecosystem

Use data, models and visualisations together to understand and address problems

Our future NSDI: Challenges ahead



Different sets of supporting facilities for data delivery
*Focus on **data access** and enable **data-sharing***

System of key registers supply driven
*Shift to a more **demand driven** approach*

Increasing users' demands and requirements
(also) from non-traditional users
*Invest in **quality, currency, metadata, interoperability, coverage***

The government-wide (societal) business case is not equal to the individual organisational business case.
The party incurring the costs does not collect the benefits
Secure ***sustainable governance and funding***

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