

kadaster



Geo Dataplatform of the future

Eulis conference Bratislava

18 November 2016, Tim Nelissen

kadaster

Introduction

- Ambition and vision of the Dutch Dataplatform and the Cadastre
- Dataplatform and the outside world
- Introduction Linked Data and API's
- The Dataplatform
- Linked Data and the Cadastre
- Roadmap

Ambition Dutch Cadastre



Offering security in property and use of everything on and under the ground is one of the three goals of the Cadastre

à **Security**



Provide a platform to enable anyone to work with geo-information. This is the second aim of the register

à **Platform**



Geo information helps solving social problems. Together with partners the Cadastre is working on these social questions

à **Partner**

The Dataplatform vision

Development of a Service Center

- Manage and unlock Geo information for anyone
- Facilitate the capability of answering social Geo questions

Development of a Digital Geo Dataplatform:

- Provide a Geo dataplatform for **data providers** and **data consumers**
- Guarantee the quality of the information
- Capable of creating relations between different datasets
- Provide high service levels
- Capable of handling different input and output formats for different target audiences
- Provide relevant meta information
- Serve data in a most easy way to use and explore via API's and Linked Data

Vision Dataplatform within Cadastre ambition

Security ownership and use:

The Dataplatform ensures Land Registry data availability at highest quality levels

A platform that allows anyone to get started with geo-information:

The Dataplatform creates this platform

Solving social problems:

The Dataplatform makes geodata maximum useful in solving social problems. The

Dataplatform will be able to answer questions like: "What are the 10 best locations for a wind turbine in this municipality"

The dataplatform and the outside world

Geodata not usable outside the geoworld

The dataplatform unlocks geodata

Geodata can't be found via search engines like Google

Transforming geodata in Linked Data plus adding schema.org attributes makes the geodata from the dataplatform easier to find on the internet

For the environmental law the ambition arises to provide visitors with relevant (Linked) Data on the map about their habitat and other relevant information including current regulation information

The dataplatform realizes this ambition

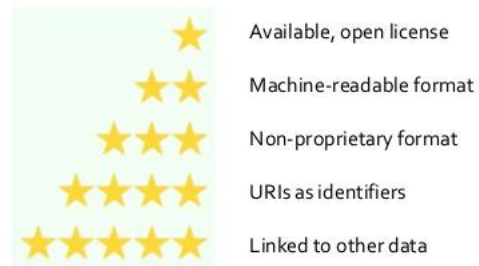


[TedTalk Tim Berners-Lee](#)

Introduction Linked Data

<https://www.youtube.com/watch?v=eWqRB-HFxl>

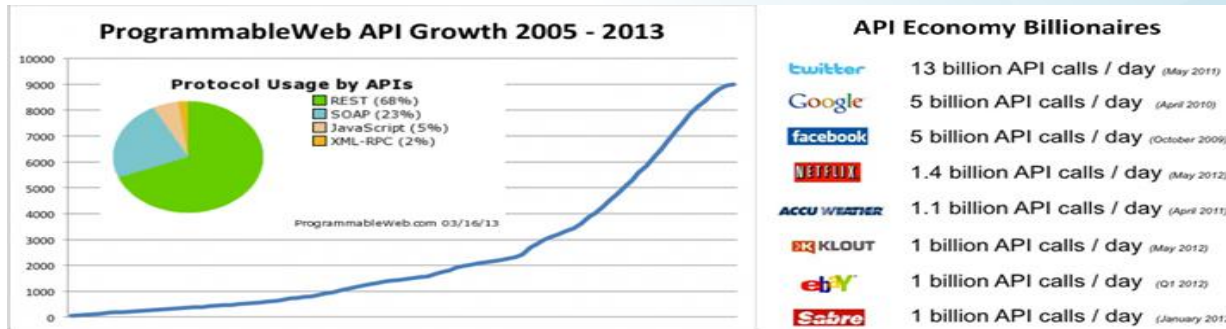
5-star model



Introduction APIs



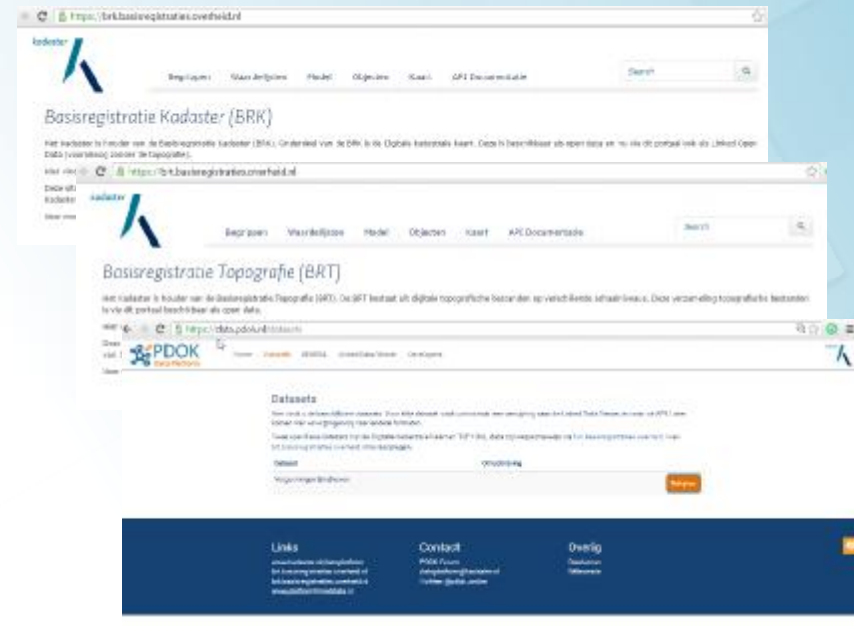
Gartner: APIs are, in essence, the new IP/Ethernet – the new way to hook systems together. We call this the “API Economy”



APIs: In [computer programming](#), an **application programming interface (API)** is a set of [subroutine](#) definitions, protocols, and tools for building [software and applications](#). A good API makes it easier to develop a program by providing all the building blocks, which are then put together by the programmer. An API may be for a web-based system, operating system and database system.

The Dutch Open Dataplatform of the future

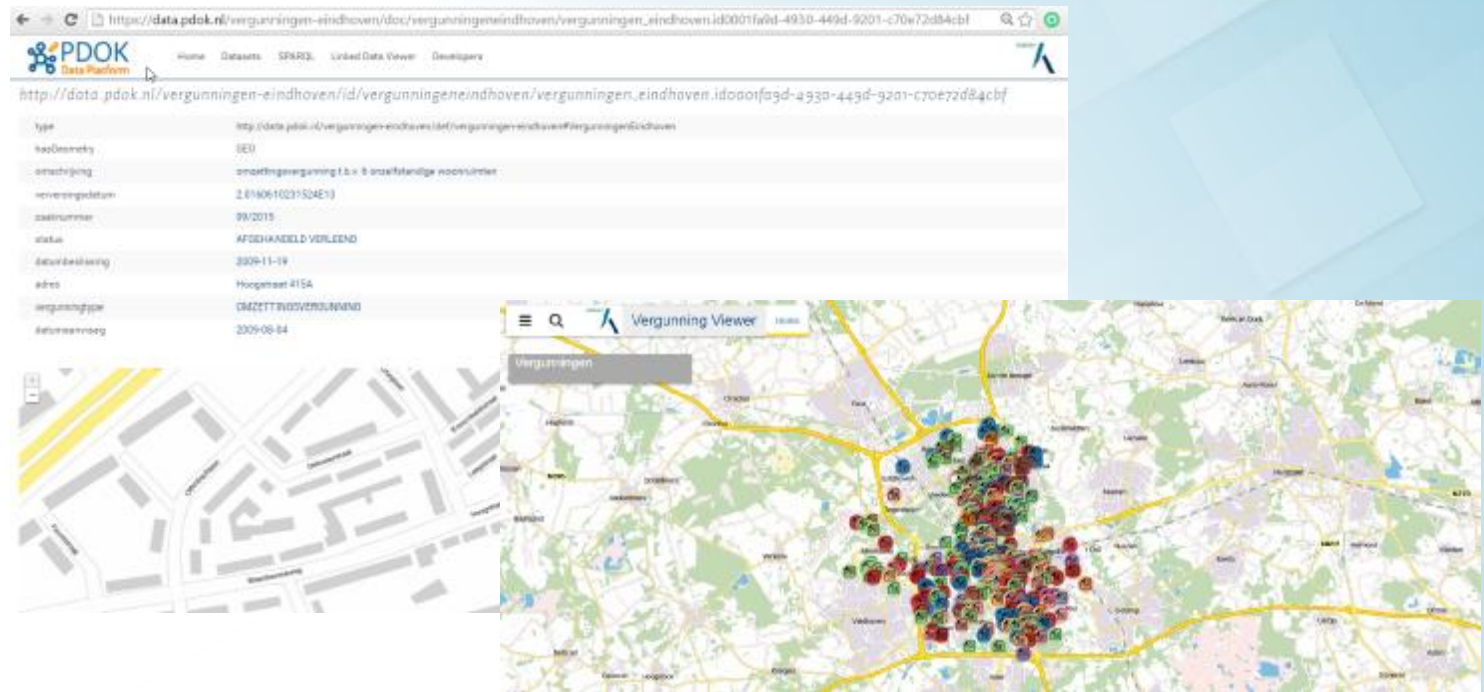
The Open Dataplatform to explore and publish Geo data on the map - using Linked Data and APIs.



Open datasets can be found on data.pdok.nl, brt.basisregistraties.overheid.nl, brk.basisregistraties.overheid.nl.

Dataplatform functions

The Linked Data Viewer allows the visitor to find data on the map



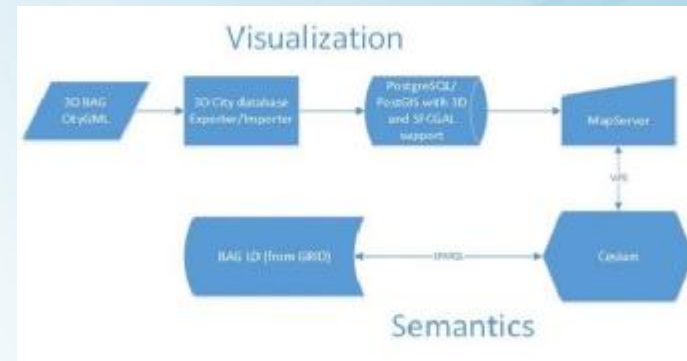
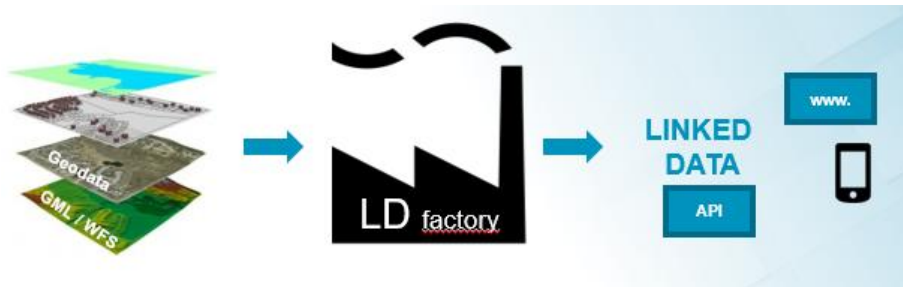
The screenshot displays the PDOK Data Platform interface. The top navigation bar includes 'Home', 'Datasets', 'SPARQL', 'Linked Data Viewer', and 'Developer'. The main content area shows a data record for a permit (vergunning) in Eindhoven. The record details are as follows:

Type	http://data.pdok.nl/vergunning-eindhoven/id/vergunningeindhoven/vergunning_eindhoven.id0001fa9d-493d-449d-92d1-c70e72d84cbf
hasOorsprong	SEO
omschrijving	omroepvergunning t.b.v. 8 urenstandige woonzender
vervoersdatum	2 6140610231524E13
zaaknummer	09/2015
status	AFGEKANDELD VERLEEND
datumbesluit	2009-11-19
adres	Hoogenlaan 115A
vergunningtype	OMROEPVERGUNNING
datumaanvraag	2009-06-04

Below the record details, there are two map views. The left map shows a detailed street view of the location. The right map, titled 'Vergunning Viewer', shows a larger area with numerous colored pins representing various permits in the region.

The Dataplatform “factory”

Traditional geodata formats (gml v2.0) transformed into Linked Data and APIs. Next releases will support other input formats such as XML. It's an open platform supporting a transformation process for any geodataset



3D functionality provides clutch bag data to the CityGML



Linked Data and the Kadaster

When linking (government) *high quality* data, for citizens, businesses and governments it will be easier to find desired information and it's becoming easier to find answers to your specific questions. Linked data brings coherence to information making it easier to take decisions. In addition search engines like Google, Bing and Yahoo are also able to index the data. Datasets physically managed in different places can be questioned simultaneously through links between the data. This all results in a **State of the Art Functionality!**



The screenshot shows the Kadaster website interface. At the top, there is a navigation bar with links for 'over het kadaster', 'vacatures', 'webwinkel', 'engels', 'woordenboek', and 'inloggen zakelijk'. Below this is a search bar and a menu with 'Particulier', 'Zakelijk', 'Nieuws', and 'Contact'. The main heading is 'Dataplatform voor de toekomst'. On the left, a sidebar lists 'Wat doen we' with categories: 'Registreren', 'Beheer Landelijke voorzieningen', 'Informatie verstrekken' (with sub-items: 'Open data', 'Het Kadaster en open data', 'Open data Kadaster op een rij', 'Dataplatform voor de toekomst'), 'Maatwerk en advies', 'Internationale activiteiten', and 'Hoe werken we'. The main content area features a large image of a construction site with a crane and a building under construction. Below the image is a text box stating: 'Wij zorgen ervoor dat een veedheid aan geo-informatie beschikbaar en op het internet vindbaar is. Hierdoor kan iedereen altijd en overal met geo-informatie aan de slag.' Further down, there is a paragraph: 'Vanaf 1 juli 2016 stellen we de Digitale kadastrale kaart (Basisregistratie Kadaster) en TOP10NL (Basisregistratie Topografie) beschikbaar als linked data en API's. Ook bieden we vanaf die datum een platform aan om opeendata om te zetten naar IncoD Sata en API's.' Below this is another paragraph: 'Als houder van de basisregistraties 'Kadaster' en 'Topografie' is het onze taak om data in te winnen en ter beschikking te stellen aan de samenleving. Dit geldt ook voor informatie uit de landelijke voordeningen. De bron van de data is bekend en daarmee herbruikbaar. Op de pagina 'Open data Kadaster op een rij' vindt u alle informatie.'

Direct regelen

- Contact met het Kadaster
- Aanmeldformulier: Mjn Kadaster
- Aanmeldformulier: Mjn Kadaster-KUC

What can be expected in the nearby future

More Data The Base Address Registration of the Netherlands featured as Linked Data and base API's like address API plus some small datasets

Daily change support Daily dataset change report including object history enablement

Connecting Data semantic and Geographical data will be interlinked starting with the the Key Register Addresses and the Dutch Cadaster Map.

Richer User Interface; More visualisations like 3D, Improved development Portal, More Meta Data, improved findability via Google and other search engines and more to come...

Self Service enabling data providers to load their data sets automatically including an Semantic mapping functionality.

Back Report Service enabling reporting back any irregularities on the map.

Quality dashboard offering improvement processes to optimize data quality.

Keep watching us!



Contact information

Links

www.kadaster.nl/dataplatform
brt.basisregistraties.overheid.nl
brk.basisregistraties.overheid.nl
www.platformlinkeddata.nl
www.data.pdok.nl

Contact

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