

## Striving for a more positive registration

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**Key words:** Positivation, Land Administration, Key Register Cadastre, Registration of deeds

### SUMMARY

The Netherlands' Cadastre, Land Registry and Mapping Agency, strives to offer society a Key Register Cadastre on which one can and may rely without the need for further investigation into the public registers. It is also the intention to bring our registration more in line with legal reality. We refer to this process as striving for a more positive system, in short '*Positivation*'

As a result of a study entitled 'Completeness guarantee owner and plot in the Key Register of Land Registry' (Zevenbergen, J., & Ploeger, H. (2019). *What would title registration bring to a deeds system with high quality land In Proceedings FIG Working Week 2019 : Geospatial Information for a Smarter Life and Environmental Resilience International Federation of Surveyors (FIG).*), we are working on tracks to improve the reliability of our cadastral registration. This requires coordination on legislation and regulations with among others the Ministry of the Interior and Kingdom Relations. The project has been taking shape since 2020.

In this paper you'll find an overview of the nine tracks devoted to improve the reliability of our cadastral registration and a short explanation of components with a geo component:

- First the results using free contouring to make Public Law Restrictions known. A system that has been in place since '21 and is more and more complete in 2022.
- Second the registration of networks (cable's and pipelines) and the corresponding provision of information in the Key Register Cadastre. We've conducted research and are working on a business case for possible implementation in 2022.

All of this to bring the registration as close as possible to the legal situation, or at least an attempt to give you as much validated data as possible.



## Striving for a more positive registration

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*The Netherlands' Cadastre, Land Registry and Mapping Agency – hereafter Kadaster - , now strives, also under private law, to offer society a Key Register Cadastre on which one can and may rely without the need for further investigation into the public registers. It is also the intention to bring our registration more in line with legal reality. We refer to this process as striving for a more positive system, in short 'Positivation', which has been identified as one of the main goals of the Kadaster's 2022–2026 Multi-Year Policy Plan. Trust and legal certainty form the base for effective spatial processes and a well-functioning economy. Municipalities use the data from the Key Register Cadastre to, among other things, levy property tax. Other authorities, such as (regional) water authorities, also use the data for the collection of various levies and charges. In addition to governmental usage, the data is also important for private parties, such as banks, civil-law notaries and insurers.*

### 1. CONTEXT

The Netherlands has one of the best land registrations in the world. Nevertheless, there are a few situations in our system in which the registration can lag behind reality for a longer period of time. Our aim is to bring the cadastral registration into line with legal reality. This comprises two parts: first the Cadastral Map Next (KKN) programme (*Eric Hagemans, Ruben Busink, Frank Schouten & Jeroen Grift (2019) 'Rebuilding the Cadastral Map of The Netherlands (Cadastral Map 'Next') : the Overall Concept' presented in FIG Working Week 2021, followed up by this years paper named Cadastral Map Next (KKN) Large Scale Coordinate Calculation*"), aimed at improving the cadastral map and second improving the reliability of the cadastral registration.

#### 1.1 Improving Reliability of the Cadastral Registration

As a result of a study entitled 'Completeness guarantee owner and plot in the Key Register of Land Registry' (*Zevenbergen, J., & Ploeger, H. (2018). What would title registration bring to a deeds system with high quality land In Proceedings FIG Working Week 2019 : Geospatial Information for a Smarter Life and Environmental Resilience International Federation of Surveyors (FIG).*), we are working on tracks to improve the reliability of our cadastral registration. This requires coordination on legislation and regulations with the Ministry of the Interior and Kingdom Relations. The programme has been taking shape and implemented since 2020.

## 2. PROBLEM DEFINITION

The foundation of the Dutch land registration system is formed by the deeds of registration in the public registers for registered property. This is as a starting point negative and incomplete. The registration of the deed does not guarantee that the legal fact mentioned therein, for example a delivery, establishment or waiver of limited rights, has also occurred. There are also legal facts, including acquisition by prescription and inheritance that do not (*need to*) appear from a registration. This means that despite the fact that the Netherlands has one of the best land registrations in the world and we advise other countries about setting up or improving their land registration, our system has the following limitations:

- Although governments are obliged to use the Key Register Cadastre without further investigation, the Key Register Cadastre only functions as access to the public registers for private law transactions. In private law, third-party protection is not derived from the Key Register Cadastre but from the documents in the public registers.
- There are still various forms of acquisition of ownership (eg inheritance) that are not, or not immediately, visible in the Key Register Cadastre. As a result, the legal reality does not correspond in all cases with the data in the Key Register Cadastre.

## 3. GOAL

Considering the context and problem definition described, *Positivation* has two objectives.

1. Provide the company with a record that can be relied upon without the need for further investigation in the public records.
2. To bring the Key Register Cadastre more in line with legal reality.

## 4. TRACKS

In order to achieve the above mentioned objectives, nine tracks are defined for research and implementation.

1. *Aim for 100% validated data.* With this track, the aim is to ensure that data originating from documents included in the public registers and processed in the Key Register Cadastre is fully validated as much as possible.
2. *Improving the visibility of easements.* An improved method of showing the legal right to exercise privileges over another person's land (this means either the public or an individual can cross or use someone else's land for a range of purposes) is needed. By automatically opening up the easements data through the managed Easements Viewer (EDB), the visibility (and thus legal certainty) can be further improved.
3. *1 on 1 Quality Mark.* The aim is to issue a guarantee by means of a (1:1) quality mark if it is certain that the Key Register Cadastre has been updated one on one in accordance with the public registers.

4. *Cadastral Map Next*. The cadastral map visualizes the location and shape of all cadastral parcels in the Netherlands. Such a 100% country-covering image, that you can walk through seamlessly, is relatively unique in the world. The history of the cadastral map and the method of (graphic) visualization mean that the cadastral map is functionally correct, but the boundaries depicted are not suitable as a basis for calculation or measurement. Also, the boundaries do not always correspond to map material from other digital information sources (or maps from other providers such as: Google Maps, GeoMedia, ESRI, etc. etc.). In the increasingly digitally functioning society and government, the cadastral map in its current form therefore fits less well, because the outside world quickly perceives the information as 'absolute truth', resulting in misunderstandings. Kadaster is striving as the next step towards a more unambiguous and accurate cadastral map, which goes beyond graphical visualization.
5. *Prescription*. With this track, the aim is to make the legal right enjoyed over another's property and which is obtained through long use more often (if not always) known in the registration.
6. *Renewal*. Entries that no longer have legal value in the Key Register Cadastre must be removed. In order to give substance to this, in consultation with the notarial profession, authority must be granted for ex officio cancellation by means of a renewal act to be drawn up.
7. *More complete registration of networks and provision of information in the Key Register Cadastre*. The aim of this track is to improve the visibility of cable networks in the Key Register Cadastre. Cable networks are legally qualified as immovable property, but are only registered for a limited part (approximately 10%).
8. *Better visibility of Public Law Restrictions*. The Disclosure of Public Law Restrictions on Immovable Property Act (Wkpb) was introduced in 2007. The aim was to provide a complete understanding of government-imposed restrictions on a plot of land or a building.
9. *Inheritance*. Through this track, inheritance should be made more apparent in the cadastral registration, so that it is clear who the (new) beneficiaries of a registered property are after a person who was previously entitled and is still registered as such in the Key Register Cadastre has died. On 1 October 2019, 260,549 deceased persons were listed as entitled parties in the Key Register Cadastre without it being known who the (successive) beneficiaries are.

#### **4.1 Deep Dive Better visibility of Public Law Restrictions.**

To bring the Key Register Cadastre as close as possible to current legal reality it is helpful to visualize the public law restrictions via one channel. Public law restrictions are restrictions imposed by the government. These determine what you can or cannot do with a house, another building or a piece of land. The restrictions are in the Netherlands registered by Kadaster. Examples are: your home is a protected monument, your property is a protected living environment (nature monuments) and the obligation to register contaminated soil. Kadaster registers and provides this information.

As it is stated in the Dutch Civil Code article 7:15 “*All restrictions on a parcel must be mentioned by seller when selling the property to the buyer*”.

We have been registering public law restrictions for quite a while. That’s not new. But We’ve found the ultimate way of doing it.

### **A little history**

Since the first of July 2007, the Public Restrictions on Immovable Property Act (Wkpb) has been in place. The Public Restrictions on Immovable Property Act should improve the registration of all public law restrictions of the government, making it easier for everyone to gain insight into the restrictions that apply with regard to immovable property. Ever since it is been possible to register digitally, but with a dual system. Optimal registration was therefor not possible because of a few bottlenecks:

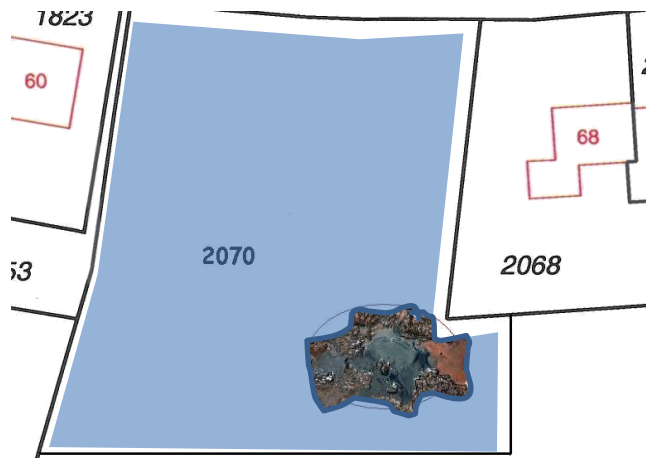
- Two separate systems were used for public law restrictions: municipalities manage their own data, while other authorities used the Key Register Cadastre.
- Municipal source documents cannot be retrieved via the Key Register Cadastre.
- Compulsory use of cadastral characteristics to delimit restrictions: this often does not correspond well to the actual situation

Therefor the public-law restrictions of all municipalities are in 2020 transferred to the Key Register Cadastre. The goal was to use one (new) system for all governments to make public law restrictions known. The amendment to the Public Restrictions on Immovable Property Act (Wkpb) is effective since the first of April 2020. That year has been a transition year, to make sure we use one system, one channel, from 2021 on. New to this system is making public law restrictions known using a free contour (instead of using a parcel, building- or physical surrounding contour). That makes the registration more accurate and in line with the actual situation.

### **The ultimate way**

Good registration of public law restrictions is necessary for sharing good knowledge and gaining insights. From the first of January 2021, citizens, governments, the corporate world and other parties (especially notaries and real estate agents) can find all information about public law restrictions and associated source documents via one party: the Dutch Kadaster. With the addition of 65.000 listed monuments by the end of last year by the Cultural Heritage Agency of the Netherlands and the transfer early 2022 of the last municipality data on public law restrictions into our new system, it is now complete. This considerably improves the awareness of these restrictions.

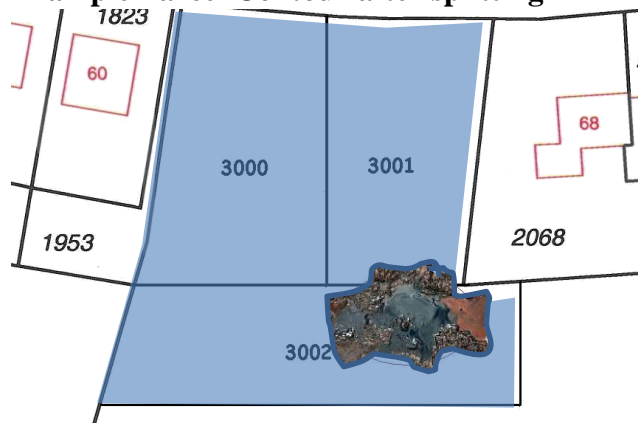
### Example Parcel Contour



Before using Free Contour it was compulsory to use cadastral characteristics, such as parcel or building contouring. Therefore, when a public law restriction regarding contaminated soil was made known, the whole parcel '2070' was encumbered with this restriction. Even when not the whole parcel was actually contaminated (as we would have known using a free contour).

Picture 1. Old way of registering public restrictions.

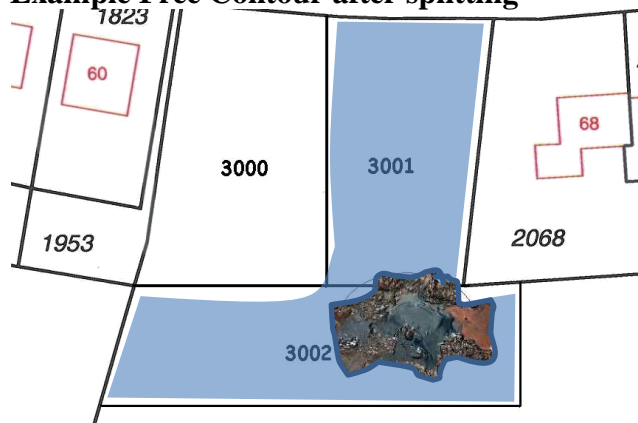
### Example Parcel Contour after splitting



What happens when the parcel is split into three new parcels, the made known restriction is 'copied' to all three new parcels 3000, 3001 and 3002. Whereas, in figure 2 it would have not been necessary to encumber parcel 3000 with the mentioned public law restriction concerning contaminated soil (as we would have known using a free contour).

Picture 2. Old way of registering public restrictions after splitting the parcel

### Example Free Contour after splitting



Using the new feature of registering a public law restriction using a free contour, we get the following result. After splitting the parcel, we know indeed that 3000 is not to be encumbered with the mentioned restriction concerning contaminated soil. That makes the registration and information more accurate and in line with the actual situation.

Picture 3. New way (free contour) of registering public restrictions after splitting the parcel.

## Benefits

The new system has a number of major advantages for registry holders:

- Restrictions can be imposed on different types of operating areas from different key registers.
- Your own contour can be supplied.
- An registry holder registers itself directly via an internet application.
- Municipalities no longer need to keep their own registration of restrictions.

The new system also has a number of major advantages for users:

- Registrations of public law restrictions are immediately processed in the Key Register Cadastre (public law restrictions) during office hours. And appear directly on our information products.
- A customer can consult the source documents (restriction decisions) of all public law restrictions.
- On Public Services on the Map (PDOK) you can see which public law restrictions there are and what their scope exactly is.
- The quality of the registration of the restrictions has improved considerably.

## Easy accessible

Public Services on the Map (PDOK) is a platform for unlocking geodata sets of Dutch governments. Per last year it is possible to select the public law restrictions data set, with a connection to the corresponding source document.

Picture 4. Dataset Public Law Restrictions via Public Services on the Map (PDOK).

The screenshot shows the PDOK web application interface. At the top, there is a navigation bar with links for 'Datasets', 'PDOK Viewer', 'Inspiratie', 'Community', 'Support', 'PDOK Next', and 'NGR'. Below the navigation bar is a search bar and a 'Voer locatie in' field. The main area is a map of Zwolle, with a 'Municipal listed monument' highlighted in red. A red arrow points to the monument. On the left side, there is a 'Selecteer een dataset' panel with a list of datasets. The 'Publiekrechtelijke Beperkingen (BRK) (1/82)' dataset is highlighted with a red box. Below this, there are several checkboxes for different types of restrictions. On the right side, there is an 'Object informatie' panel with a table of object details. The 'grondslag\_omschrijving' field is circled in red.

grondslag_code	GG
grondslag_omschrijving	Aanwijzing gemeentelijk monument (voorbescherming, aanwijzing, afschrift)
identificatie	64796
meerdere_brondocumenten_ingeschreven	Nee
organisatie_informatie_nummer_oin	00000001001900249000
statutaire_naam_bestuursorgaan	Gemeente Zwolle

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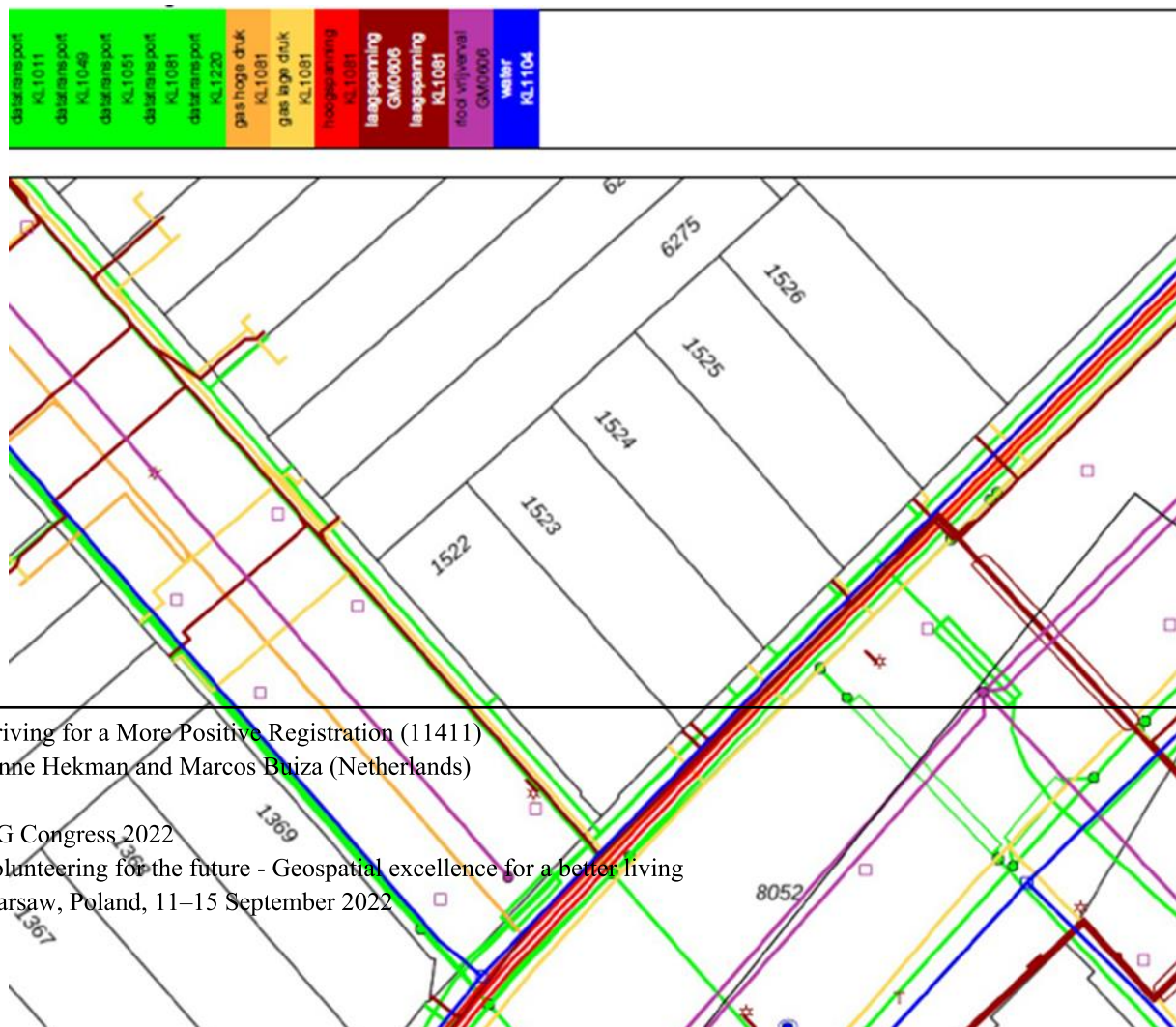
## 4.2 Deep Dive registration of networks and provision of information in the Key Register Cadastre

We've carried out a literature study and interviews have been held with experts into the current problems (in legislation and regulations) of registration (of (property)rights in relation to) of networks. The results have been elaborated in a conceptual solution. This solution entails the development of a system that must meet a number of requirements. The main functional requirements that a new system must meet are listed below:

- Visual geographical representation (see also picture below) of the location of all registered networks with network designation in the Netherlands in relation to the nationwide digital cadastral map.
- Registration of an intended or changed network to be registered in the public registers on the basis of a digital file with 'Rijksdriehoek' coordinates (coordinates in the geodetic coordinate system that are used at national level for the Netherlands as the basis for geographical indications and files). Creating a network drawing is no longer necessary.
- Possibility as a user of the Key Register Cadastre (citizens, governments, business etc.) to investigate whether a network has already been registered in the public registers before.
- Provide insight via the Key Register Cadastre into a list of all cadastral parcels that cross the intended or modified network to be registered.

In 2022, we will perform an impact analysis on existing legislation and regulations in relation to the outlined solution. Only then the preparation of a Business Case will follow.

Picture 5. Visual geographical representation of cable's and pipelines



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## 5. REFLECTIONS

The Dutch government has been collecting and making geographical information available since 1815. This is information about, for example, the location of roads, water, buildings and agricultural land. Kadaster was founded in 1832 and has therefore been in existence for more than 185 years. Kadaster started with surveying under the influence of Napoleon. A lot has changed in all those years – but the system has also been *negative* for all these years ...

Therefore striving and working towards a more positive registration will not happen overnight.



We've got to deal with information and deeds registered long before computers were invented and results of digitalization during the eighties. We try to interpret written deeds from a decade ago with Artificial Intelligence and have to work with parcel information collected with the use of measuring chains and measuring tapes in the first half of the nineteenth hundreds. Our biggest challenge therefor is to be data-driven in a digital time while striving to bring this information in line with the legal reality.

Picture 6. measuring chain

## REFERENCES

- Zevenbergen, J., & Ploeger, H. (2018). *What would title registration bring to a deeds system with high quality land* In *Proceedings FIG Working Week 2019 : Geospatial Information for a Smarter Life and Environmental Resilience International Federation of Surveyors (FIG)*

## BIOGRAPHICAL NOTES

Mr. Buiza is project manager "Positivation" at Kadaster. Over twentyfive years ago he graduated his internship at Kadaster as part of his HTS (Technical college) studies. Together with his graduation buddy, Buiza stood at the cradle of the calculation method RDNAPTRANS. With RDNAPTRANS the transformation from anywhere in the Netherlands between a GPS-measured point in 'European Terrestrial Reference System 1989 coordinates' and on the other hand corresponding RD/NAP coordinates (= reference system in the Netherlands) is calculated. The first twelf years he worked in the geo-information branch of Rijkswaterstaat. Rijkswaterstaat is part of the Dutch Ministry of Infrastructure and Water Management and responsible for the design, construction, management and maintenance of the main infrastructure facilities in the Netherlands. After six and a half years of carrying out various line- and project management assignments at an interim management agency, Buiza has now been employed by Kadaster for over six years. He is following a Master of Business Administration (MBA) course in his own time.

Ms. Hekman is a Key Register Cadastre specialist with proven experience in advising, project leadership, training and workshop facilitation about the (inter-)connecting base registers in the Netherlands. Hekman has worked with the Dutch Kadaster for nine years and specializes in the process of legal certainty. In terms of striving towards positivation she's been advising for tracks 1. *Aim for 100% validated data* and 9. *Inheritance*. During her career she has been involved in the SPATIAL (Strengthened Professional Access To Information About Land) project in the Western Balkan region and the (current) Land at Scale project in Rwanda. She was a member of the Local Organising Committee for the first digital FIG (International Federation of Surveyors) Working Week. International experience on (gender)equality and female leadership is also gained as a volunteer trainer and facilitator for the World Organisation of Girl Guides and Girl Scouts. She holds a bachelor degree in Business and Economics.

## CONTACTS



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