Progress of Land Administration and Geospatial Information

IN A RAPID CHANGING WORLD
The Netherlands

Theo Splithof, Senior Advisor Key Registry Kadaster
FIG Commission Annual Meeting 2019 Seoul aug 2019
AMBITIONS Land Administration Netherlands:

- Providing a stable basis for Information about real estate and space around us in the Netherlands.
- Continuity is an important starting point for our actions.
- In a changing society this requires constant renewing and innovation.
- The organisation therefore hast to be vital and agile.
Related issues from the Multi-Year Policy Plan 2019-2023

Vital Organisation / Renewing Key Registry (BRK) (Main part presentation)

- Positivation
- Multi-dimensional objects registration
- Quality and Quality mark.
- Fitting the key registers system in the Netherlands

- Theo Splithof, Senior Advisor Key Registry Kadaster
- FIG Commission Annual Meeting 2019 Seoul aug 2019
Relation Dutch Land Register – Key Register Cadastre

- **DutchLand Register**
  - Source of the BRK (deeds)
  - Deeds = delivery
  - Acquisition of ownership without registration, i.e. inheritance and prescription

- **Key Register Cadastre (BRK)**
  - BRK = incomplete (*)
    (negative system)
  - Kadaster-on-line delivers BRK output

- **KOL**
  - Kadaster-on-line delivers BRK output

(*) Remark: (legislation is not harmonized)
In certain situations alterations may not be made in the BRK without a deed as source document.

https://zakelijk.kadaster.nl/brk
Key Registry – work in progress

• Key Registry On-Line Accessible (2002)
• Qualified Electronic Signatures (2005)
• Deeds with structured data (2006-2019)
• New Key Registry System (KOERS) (2018)
• Data entry (by AI/ tekst extraction? in progress)
DEVELOPING new key registry system (1)

Method (Waterfall)
- Plan & Analyse
- Design
- Build
- Test
- Correction
- Test
- Deploy

Framework (Agile)
- Analyse
- Plan
- Analyse
- Plan
- Analyse
- Plan
- Design
- Build
- Test
- Deploy

Source: quickscrum.com
COMMUNICATION:

- INTERNAL
  - Staff members

- EXTERNAL
  - User Consultation

Source: lynda.com
A NEW KR SYSTEM – “A HART TRANSPLANT”

Gathering
- PRIMA (surveying)
  - Style-sheet system
  - SPLITs

Registration
- KPV (parcels)
- BRK inquiry

Information
- Info output Portal KOL
- BRK Output webservice
- BRK in inquiry
- Cadastre Persons
  - Linkage key register legal entities
  - Linkage key register persons
  - Cadastral file

Terrestrial registration

Land registry

Key registers
Interfaces

In reality...

- 4427 AUTOMATED TESTS
- 969 CONTROL RULES
- >1500 BUSINESS RULES
- >253585 COMPUTER CODE LINES
- 2 COMPUTER CENTERS
System build to automatically process deeds

Stylesheets = XML structure

First part: standardized text completed with essentials of parcels, persons and rights

Declaration of notary: “end of first part”: means in second part are no rights established and no changes on first part.

Second part
• free text

*Stylesheet-based deeds = 40% of workload 2018
Principle design

DEED

Element = legal fact

Object 1 (parcel)
Object 2 (parcel)

Person A
Person B
Person C

Element part
Element part

Transfer ownership
Cancel Contract of sale
easement

Parcel

Transfer ownership
Cancel Contract of sale
easement

Piet

Jan

Seller
Buyer
Seller
Buyer
KOERS Proces BRK

1: Main stream

40% KIK deeds

KIK automated processing XML

Business rules

BRK Database

Business rules


60% Not KIK deeds

KIK = Stylesheet deed

In the end all deeds automated processed in BRK database!

13 (Automated) Processing based on Legal Facts and Business rules in de BRK
APPROACH steps

• DISCONNECT FROM INTERCONNECTIONS

• CLEAR FROM REDUNDANCIES & DUPLICATION (old database)

• PRACTICING IN A COPY ENVIRONMENT

• READY FOR MIGRATION

New combined with Old

Source: https://www.inntelhotelsamsterdamzaandam.nl/
GOING LIVE

CONVERSION in one weekend:

• ‘OLD TRAIN’: THURSDAY & FRIDAY DISCLOSE IN SYSTEM

• ‘NEW TRAIN’: MONDAY MORNING FULL SPEED

• IN BETWEEN: - CONVERSION (CHECKS!)
  - MIGRATION (CHECKS!)

• RACI MATRIX: CHIEF REGISTRAR
RESULTS

• SUCCESSFUL INTRODUCTION

• NEW & FLEXIBLE SYSTEM

• QUALITY IMPROVEMENT:
  • DOUBLE CHECK DATA ENTRY
  • UPDATING REGISTER BY BUSINESS RULES

• GENERIC RESULTS (STYLESHEET OR NOT)

• OUTPUT IN XML
BRK INFORMATION PROVISION IMPROVED!

Integration possible

Actual and controlled
We are working on making the Key Registry Land Registry more up-to-date and complete.

Aim: to give users a complete as possible a picture of the current, legal reality. A particular point of attention here is the location and accuracy of the boundaries on the cadastral map.
Multi-dimensional objects registration

Historically, we record the rights to a plot (2D). Due to the complexity of our space, recording on a 'flat surface' is no longer sufficient. We are working on capturing information in 3D with the history, future and usability of this data at different scales.
We believe that geo-information must be accessible to everyone. We are further expanding our platform with possibilities for analyzing data. In addition, we will link datasets to each other. (Key registers) We use concrete questions from users for its development.
Overview of links between the BRK and other relevant key registers

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**BRP**
- GBA (natural persons) 97.8% linked with the BRK
- Link is laid after the modification process of the deeds
- Data on natural persons are partly taken over in the BRK
- The RNI was added to the BPR in 2014

**NHR**
- Legal persons (of Kadaster’s register) with NHR; about 50% of legal persons are linked
  - (Chamber of Commerce number and the legal person’s fiscal number; taken over in BRK)
- Control legal persons before modification process deeds

**BAG**
- 99% of all cadastral objects with buildings (VBO’s) are linked with the Key Register Addresses and Buildings (VBO id’s).
- Addresses are daily updated.

(*) Remark: (legislation is not harmonized)
In certain situations alterations may not be made in the BRK without a deed as source document.
Insight into the quality of data is important. When providing information, the recipient must know to what extent he can rely on the information. We are working to increase the use of provisions for feedback and correction requests. This fits with our growing role in monitoring the quality of the data of the various source holders.
THANK YOU VERY MUCH FOR YOUR ATTENTION!