# Cadastral surveying in the Netherlands

almost exclusively by Cadastral employees

kadaster

feitelijk verrassend

Eric Hagemans, Kadaster CLGE Riga, september 22 2016



#### Introduction

Personal

Work:

80's Technical University Delft: Geodesy Education: 4 years Surveying companies 20 years University of Applied Science, Utrecht 2 years Kadaster: senior-advisor geodesy

#### **Subjects**

- Surveying in the Netherlands
- Dutch survey education
- Dutch "Kadaster"
- The Dutch cadastral surveyor



Process & trends 

#### Surveying in the Netherlands, regulated?

Survey type	Rules	Institute
Topographic	-	Delft / Utrecht
Constructions	Building industry requirements	Delft / Utrecht
Deformation monitoring	Mining requirements	Delft / Utrecht
Hydrography	International	Hydrographic society
Cadastral	Internal	Kadaster





#### Dutch survey education

 TU Delft ("Delft school"): ( Msc) specialised in LSA & geometric quality description



- University of applied Science:
  Utrecht (geo) & Terschelling (hydro)
- Professional education: several schools
- Fit for purpose courses



### The Dutch "Kadaster"

- Cadastre & landregistry
- National Mapping Agency: small scale topography

#### Distribution of geo-info:

- All topography
- Buildings
- Cables & pipes
- Aerial photos
- Cadastral map



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#### Consultancy

#### Exemple: registration of networks



correspondance with location of network provided by utilities?

## The Dutch cadastral surveyor

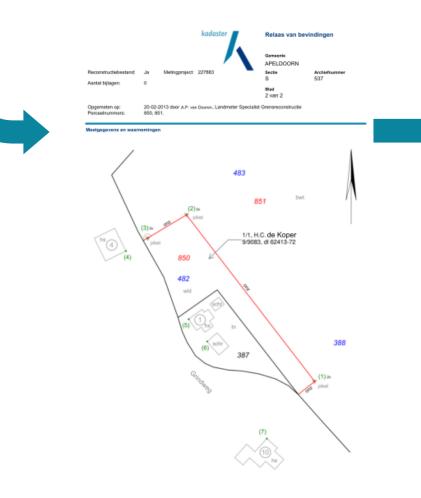
- (nearly) only own employees
- Educated on professional level, both survey and legal aspects
- Legal aspects in the proces by notary and registrar (academic)
- We don't have independent surveyors with a licence for cadastral surveying



"a little bit jealous!?"



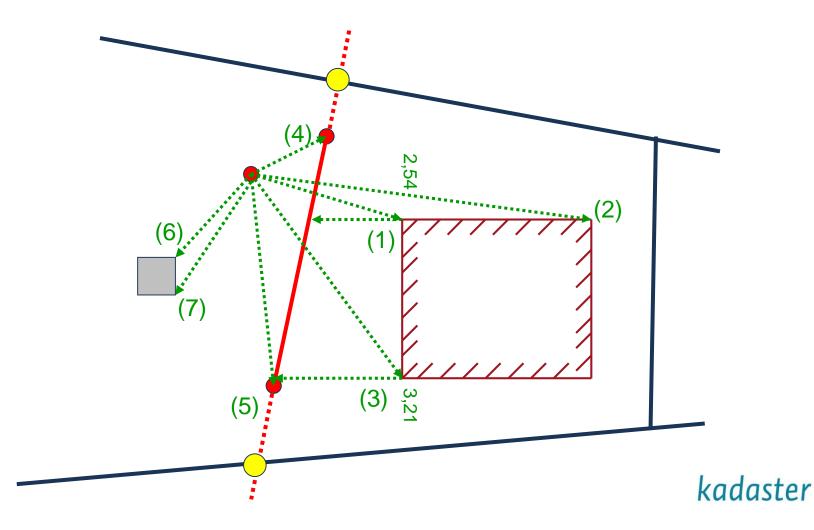
#### Process cadastral updating



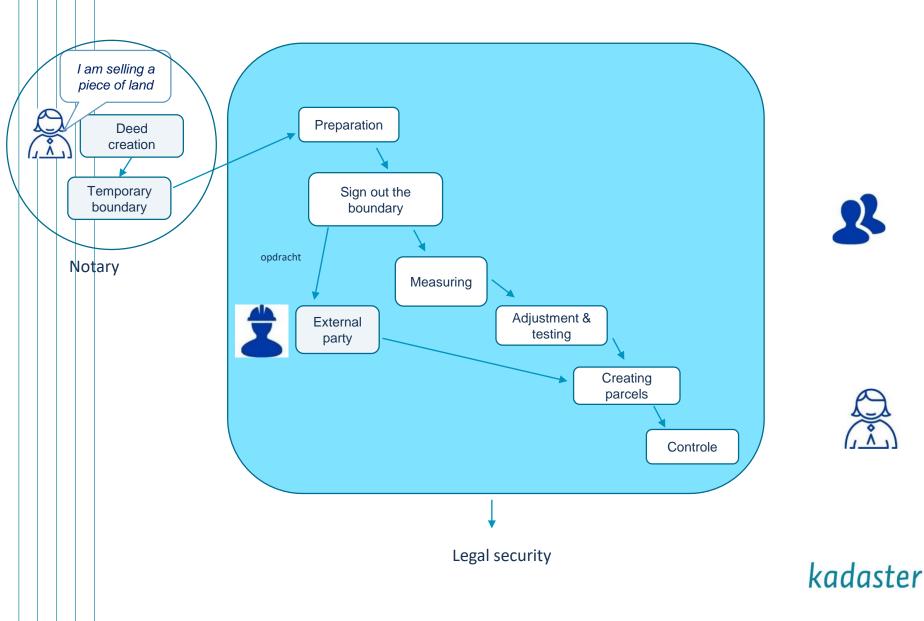


#### Measuring a new boundary

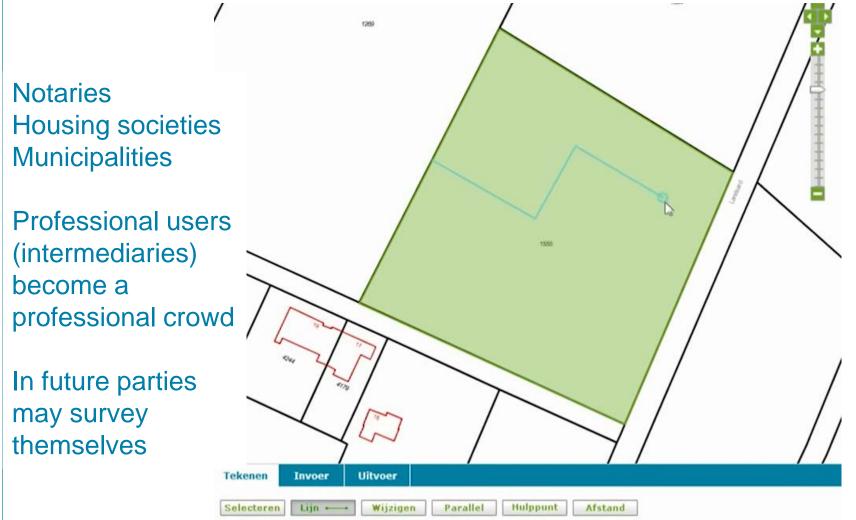
- combi of GPS, robotic totalstation and disto measurements
- yellow points constructed at the office, not in the field!



#### Process of measuring a new boundary



# New: input of preliminary boundaries by professional users



#### Users' participation



users are connected users are accustomed

accustomed to real-time access to **information** 

it seems obvious that they can also **provide** information

Source: Land Information New Zealand, Cadastre 2034 http://www.linz.govt.nz/sites/default/files/docs/cadastre\_strategy\_web4.pdf



