How Land Registry and Cadastre can help in recovery:

Integrate land administration with formalization and the Recovery Action Plan

Outline

- Why is a land administration so important?
- What are key registers and why do we need them?
- How to acquire relevant data?
- How to build or improve a land administration?

Terminology

Main terms

- **Cadaster**: Register of real estate objects (land parcels, buildings, pipelines)
- **Land register**: Registration of real estate titles (ownership, lease, mortgage)
- **Cadastral map**: graphical representation of the location of a parcel, building, pipeline, etc
- **Land administration**: the combination of all three, sometimes only two or even one of them
- **Land Registry**: the organization responsible for the recording of data and sharing of information also called the Cadaster

Other relevant terminology

- **Land tenure:** legal regime in which land is owned by an individual (land holder)
- **Tenure security:** the certainty that a person's rights to land will be recognized by others and protected in cases of specific challenges
- **Titling:** the process of assigning real estate titles to a person and recording them in a land registry
- **Formalization**: action to officially register a real estate object (parcel, dwelling, apartment, etc..) as a legally owned property
- **Key register**: state register than contains high quality data maintained by the so-called custodian (synonyms are basic register or authentic register)
- **NSDI**: technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of **geospatial data**
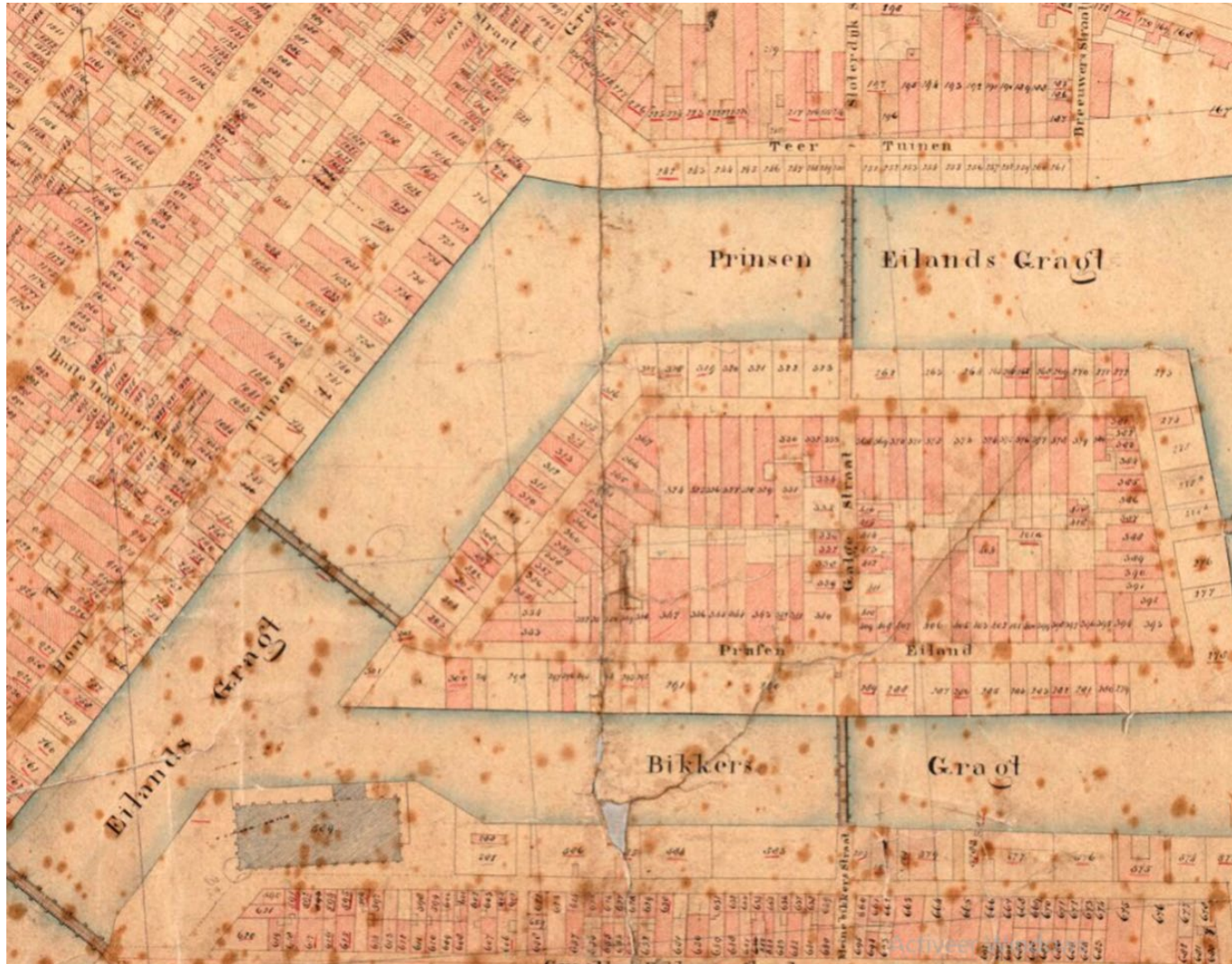
Cadaster and land register

Information in cadaster:
- Parcel number
- Size of the parcel
- Built or unbuilt
- Owner or user
- Tax income
- Tax value
- Reference to mortgage

Information in land register:
- Title holder
- Types of titles
- Restrictions, servitudes, etc..
- Deed of transfer

# Cadastral map

Map
- Parcel
- Building
- Topography

NB:
- Precise boundaries
→ Cadastral map
- General boundaries
→ Index map

Data gathering

❑ What data: real estate objects, legal owners, informal constructions, #people, medical posts, utilities, quality of houses, etc..

❑ Data in textual (yes/no location bound) and geographical form

❑ How to acquire data?
  ❑ Reuse existing data
  ❑ Collect new data (if strictly needed for the information required)

❑ What sources are already available? There is more than one thinks!

❑ What are key registers and why do we need them?
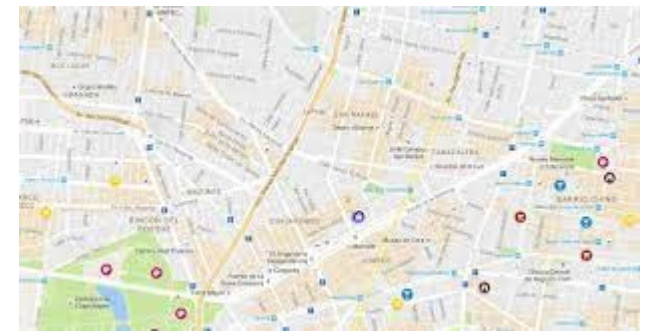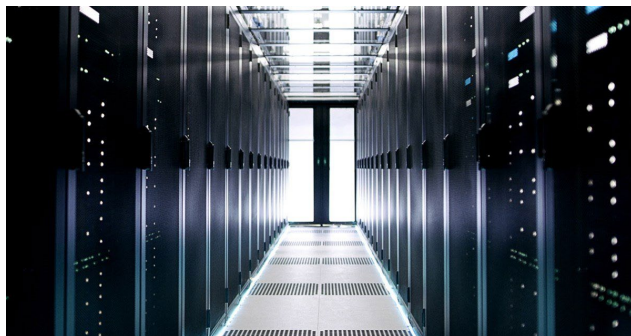
Data gathering: aerial photos

Point Cadastre 2.0

Photo Identifier: Bairro 01
Name of Inspector: Yussuf
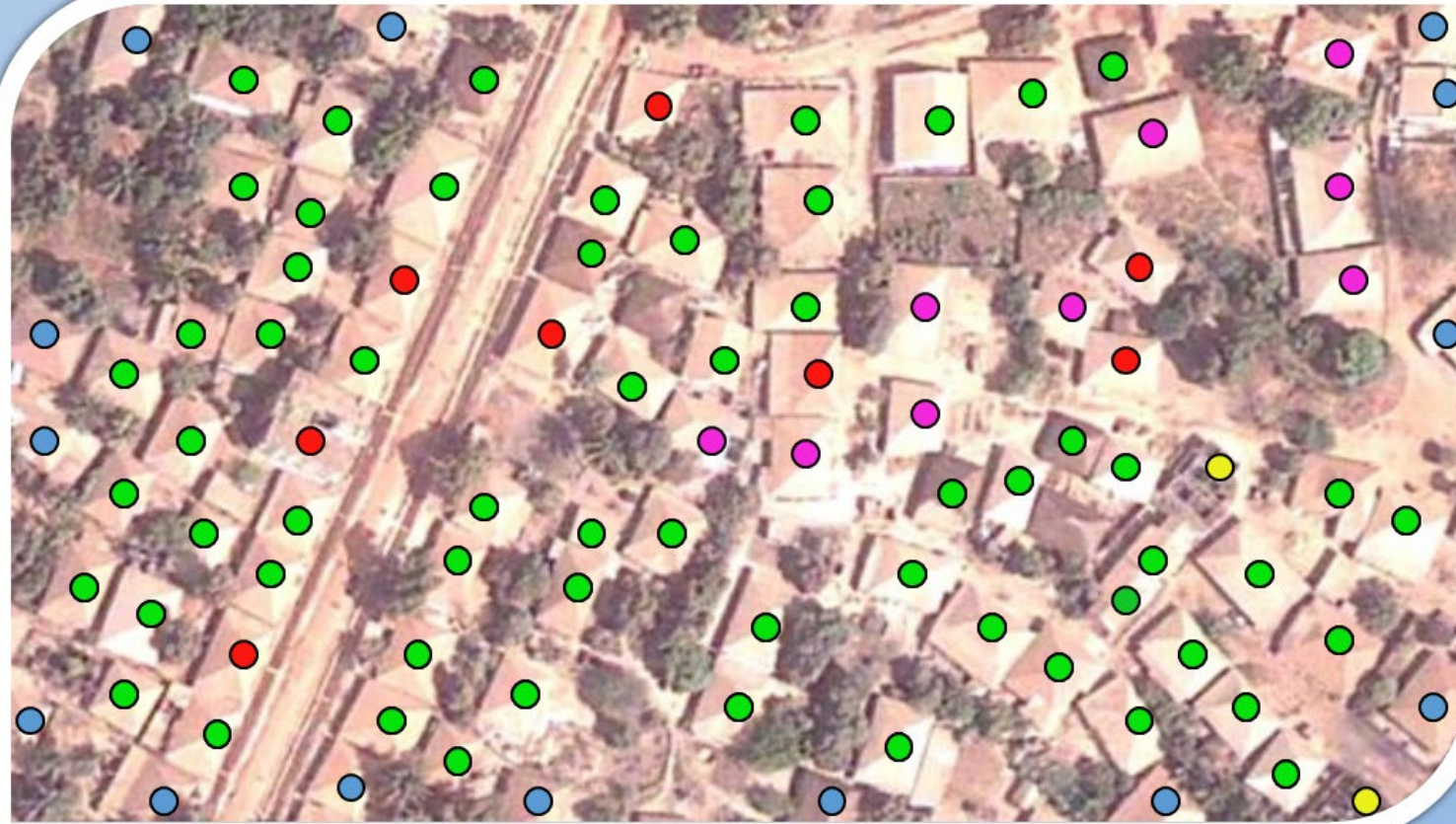
○ Objects under construction
○ Neighbor Inspector

● No Tax Paid and not registered
● No Tax Paid but registered
● Tax Paid

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Courtesy: Netherlands Kadastre (Chrit Lemmen and Co Meijer

Data gathering: Crowd Sourcing

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- Cheap solutions to collect and improve data

- Important to control quality of key registers

- Not only in situations where state registers are immature→

    - border monuments
    - cadastral and topo map

Overview of data sources

System of key registers

- Anchored in the law
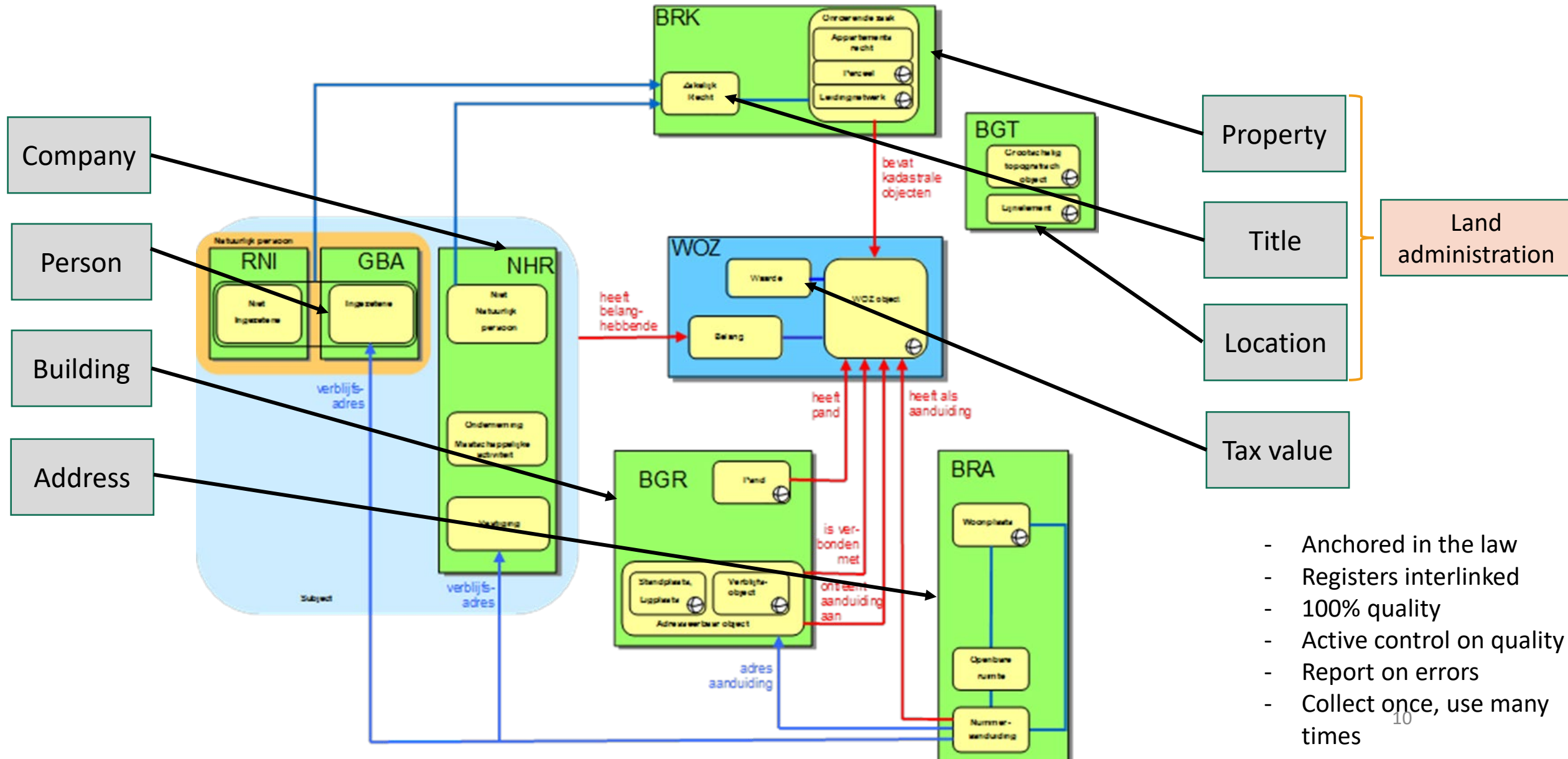- Registers interlinked
- 100% quality
- Active control on quality
- Report on errors
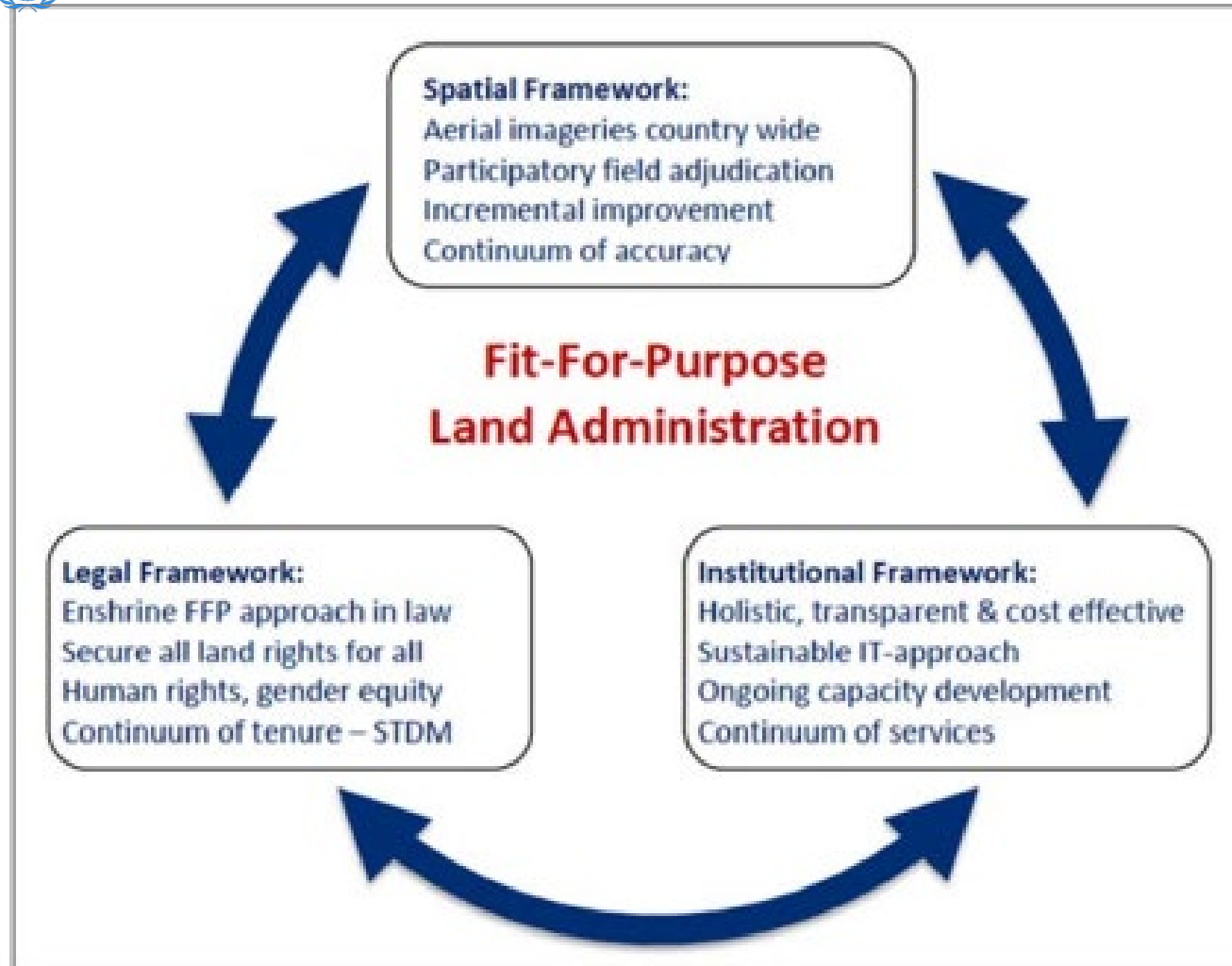- Collect once, use many times

Implementing

Where to start?
- Determine priorities in what data to collect and at **quality**
- Make sure that all stakeholders have their input
- What data is needed to support "Building-Back-Better"
- Working towards an NSDI: National Spatial Data Infrastructure

Building a system of key registers
- Who can take the lead in the governance? Minister of Interior or Housing?
- Who will be responsible for the action?
  - What can be the role of the Land registry and cadaster agency?
    - Owner, title, objects, maps
    - Agency can be coordinator or a separate body to coordinate all activities
- How shall it be financed? Private sector <-> public sector <-> PPPs?
- Income can be generated by taxation, fees, charges, contribution, etc.

Building a land administration

Spatial Framework:
Aerial imageries country wide
Participatory field adjudication
Incremental improvement
Continuum of accuracy

**Fit-For-Purpose
Land Administration**

Legal Framework:
Enshrine FFP approach in law
Secure all land rights for all
Human rights, gender equity
Continuum of tenure – STDM

Institutional Framework:
Holistic, transparent & cost effective
Sustainable IT-approach
Ongoing capacity development
Continuum of services

Use the Fit-For-Purpose approach:
- Define basic requirements
- Keep it simple
- **Incremental** improvement
- Make it not better than required
- Fit-for-Use

Building a land administration

Improve legal framework

- Inclusive, transparent, as simple as possible (example Australia)
- Law on legalization and formalization (many examples in the Balkans)
- Special attention to legal position and institutional setting: law defines the "contours"
- Pay attention to dissemination of information freely available and free of charge

Improve institutional framework

- Define role of land registry and cadaster (one agency)
- Define role of all other actors
  - Notaries
  - Lawyers
  - Surveyors
  - Courts
  - ….
- Describe organizational set up
- Identify what expertise is needed and in what volume
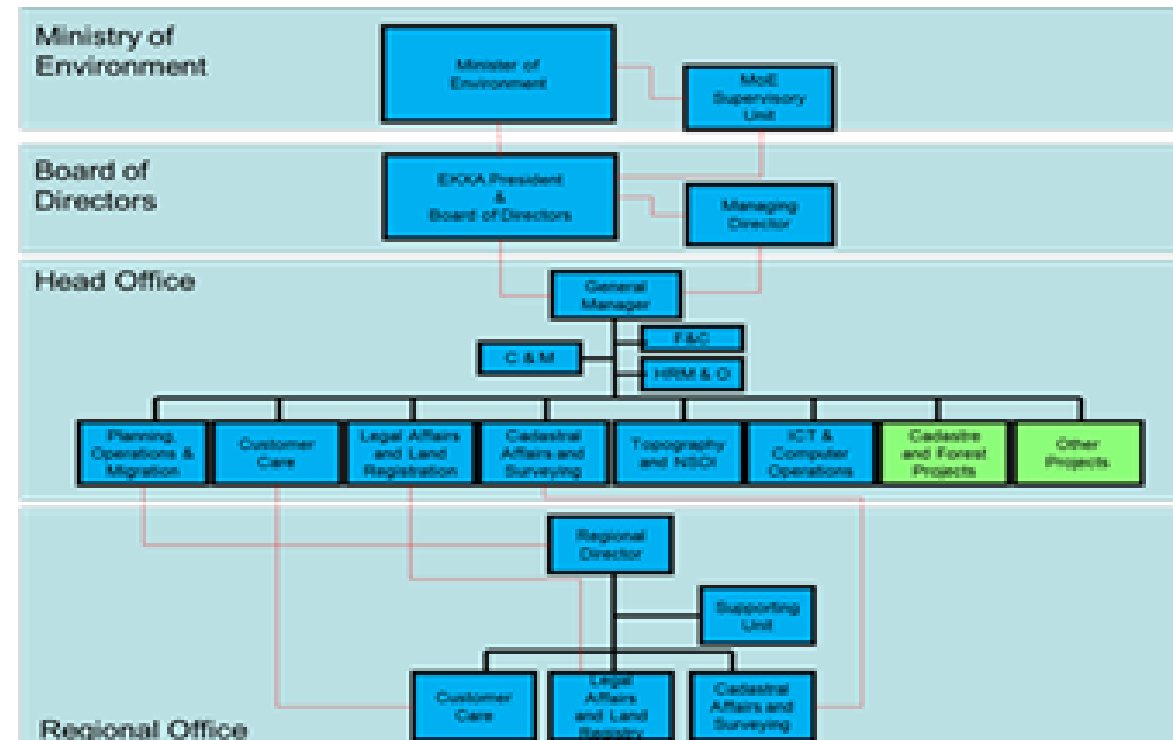
Building a land administration

Building or improving land register and cadaster

- Define or redefine process of registration including role of all actors
- Register all real estate objects no matter what status→100% coverage
- Collect titles in a systematic way
- Record the status: informal, illegal, no building permit, no living permit
- Make sure that a unique key is defined to each parcel
- Make use of municipal information on buildings, users, meta data, etc.
- All information in digital format
- Pay ample attention to the IT-design of database and functionality
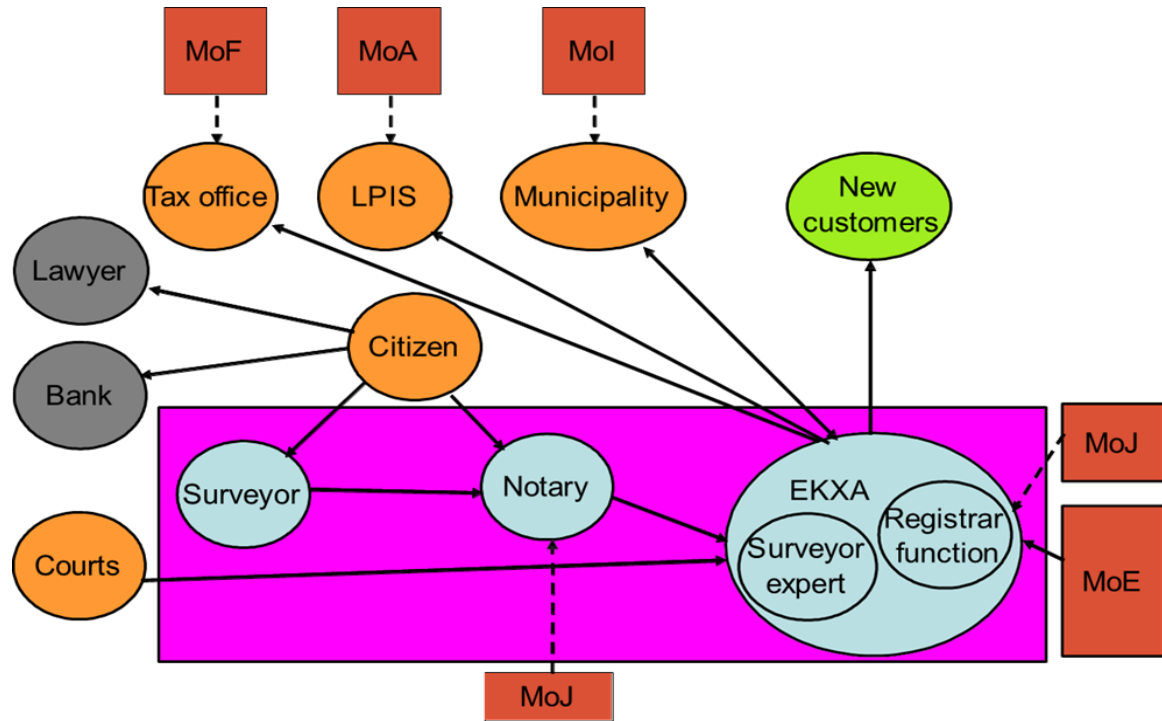
Building a land administration

Make a cadastral map

- Make use of already existing maps (municipality, private sector (Google maps, Streetview)
- CM-precision for mapping of boundaries is not required
- An index map covers most of the times the needs
- In apartment buildings boundaries are clear
    - NB Attention for the land plot, common spaces, common utilities, etc.
- Map in digital form! Use standard GIS-system like Geomedia, ArcGIS, Mapinfo, open source GIS
- Aerial photographs(specific national dataset) for identification and delimitation of parcels, but serving Building-Back-Better-needs for additional information as well
- Assure consistency between cadaster, land register and cadastral map

Building a land administration

Check if a building register is available

- Most of the time basic data are available (tax authorities, municipalities)
- Do not built a second register but team up with already existing initiatives
- Check what elementary data are needed (floor plan, size, year of construction, materials, state of maintenance, technical state, etc.)

Check if an address register is available

- It is a trivial register but very important to link constructions and persons
- In most cases the address register is not complete
- Most of the time the addresses are not uniquely referenced

NB: these registers serve not only land administration, but also the formalization process and the Recovery Action Plan

Resume

- Tenure security is a basic condition for economic development
- Land administration is a crucial infrastructure serving many goals
- Property data should be 100% reliable→ key registers
- Pay attention to registers as buildings and addresses
- For building or improving a land administration use the FFP-methodology
- Keep the land administration system simple
- Build what is strictly needed: stick to the requirements
- Do it in an incremental way: have a step-by-step approach ready
- Make sure that **all stakeholders** are involved in the design functionality both the registers and maps
- Seek for best practices and international support!!

Thank you!

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