Stakeholder engagement through scenario study on future land administration

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Chair UNECE Working Party for Land Administration

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Agenda

1. Introduction to WPLA
2. Objectives with the study
3. Methodology
4. Imperative for transformation
5. The Scenarios
6. Guiding principles 2035
7. Self-assessment framework
8. Consultation and stakeholder engagement
United Nations Economic Commission for Europe (UNECE)

56 member States in Europe, Central Asia and North America

Albania  Andorra  Armenia  Austria  Azerbaijan  Belarus  Belgium  Bosnia and Herzegovina  Bulgaria  Canada  Croatia  Cyprus  Czech Republic  Denmark  Estonia  Finland  France  Georgia  Germany  Greece  Hungary  Iceland  Ireland  Israel  Italy  Kalmykia  Kyrgyzstan  Latvia  Liechtenstein  Lithuania  Luxembourg  Malta  Monaco  Montenegro  Netherlands  Norway  Poland  Portugal  Republic of Moldova  Republic of Macedonia  Russia  San Marino  Serbia  Slovak Republic  Slovenia  Spain  Sweden  Switzerland  Tajikistan  Turkey  Turkmenistan  Ukraine  United Kingdom of Great Britain and Northern Ireland  United States of America  Uzbekistan
The Working Party for Land Administration (WPLA)

• Overall objective: Promotion and improvement of land management and administration in the ECE region
• Adhere to and support Agenda 2030 and New Urban Agenda
• Activities are based on cooperation and exchange of experience and best practices among ECE member states through:
  – Workshops and conferences (>= 2 per year)
  – Land administration reviews upon request from governments
  – Publications of studies and guidelines on specific topics
  – Benchmarking
• Collaboration with UN-GGIM, EuroGeographics, FIG, FAO, UN-Habitat, PCC, World Bank etc.
WPLA Task Group Activities 2018-2019

• Continuous benchmarking of land administration systems – cost study
• Informal settlements buildings and constructions
• Fraud in land administration
• Perceived tenure security (Prindex)
• PPP for land administration (FIG Com 7)
• Emerging technology forum (HMLR)
• Scenario study for future land administration
Objectives

• Provide LA authorities with an Operational Framework based on scenario analysis and used to explore their future and to facilitate national LA strategies
• Understand emerging developments expected to shape the future
• Support LA authorities to identify common challenges and opportunities, share best practices for solutions and risk mitigation measures and to improve preparedness for future disruptive changes
• Contribute with relevant thought leadership to the long-term strategic work of the authorities for them to stay relevant, liable and provide trustworthy and future-proof services
Methodology

1. Identify global megatrends and score their relative importance and anticipated impacts on LA within the next 10-15 years
2. Identify specific trends/aspects in the LA domain
3. Define future scenarios
4. Feedback from member states and beyond
5. Operational Framework
   • Trends applied (mega/specific)
   • Scenario descriptions
   • Guiding principles 2035
   • Self-assessment framework
6. Consultation workshop in Geneva, 3 March 2020
7. UNECE Operational Framework, dynamically updated
Global Megatrends +

Define what we do, how we do things and what is possible to do

The digital Transformation

Globalisation

Urbanisation

Technological advancement

New Business Ecosystems

Climate Change

Individualisation

Knowledge-based Society

Diversity and Pluralism

Agenda 2030

Define what we do, how we do things and what is possible to do
User Expectations +

- People want to make informed judgements for themselves
- Land information on demand
- Mobile device for property transactions and geospatial data capture
- Origin of data clearly defined
- More complex people-to-land relations
- Managing legal complexity
- e-services
Expanded Role of Land Authority +

- Smart cities
- Climate change initiatives
- Integrate planning and building process
- e-government (key registers)
- Blockchain technology
- NSDI
- Utilisation of UAVs
- 3D/4D and closing the gap between BIM and GIS
- Open data

Consequences for the land authority:

- Increased interaction
- More complex decision-making processes
- New competences
- Increased business intelligence and international collaboration
Constraints to Evolve +

• Fossilised systems, legislations and processes
• Human resources constraints
• Financial constraints
• No holistic land policy
• Limited political will
• Weak performance of services
• Siloed data and institutional overlaps/competition
• Low/uncertain data quality and coverage
• Limited access to information
How to Stay Relevant?

- Holistic
- User-centric
- Digital trust
- Automation and process improvement
- Integration
- Data-driven decision
- Resilience, definitive, authoritative
Journey of Transformation

Authority/country Experience

Transformation

Legacy Processes

First registration

Digital Plans

Revised Datums

Paper Records

Scanned Paper

Automated Processes

Integrated Workflows

Continuum of land rights

Data integration

Structured Data

Correlated, definitive, authoritative data

Smart Contracts

Blockchain

GIS/BIM

Complex people-to-land relations

Big Data analysis

Data-driven valuation

Self-sustaining

NSDI

E-government

3D Titles/RRRs

Digital Trust

User-centric e-services

Evolution

NSDI
Legal and policy strategy

Sensitive information
- Secret
- National security
- Privacy
- Intellectual property rights
- Open

“Public” information

Extensive barriers
- Control
- Legal mechanisms
- Trust

No barriers

Avoid having fundamental data at this level
General rather than detailed regulations
Systematic framework for risk management

Data protection
Openness
Prioritize the global megatrends according to their respective impact on LA arrangements (distribute 25 points)

- **Climate adaptation**: 9 points
- **Decentralised environments**: 3 points
- **Digital transformation**: 7 points
- **New business ecosystems/collaborations**: 1 point
- **Urbanisation**: 5 points

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## Megatrend Analysis

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Feedback Comments

Business ecosystems:
“Open data and less motivation for citizens to pay for the services. We do not have customers but open data”

“Enable new ways for land administration, especially due to platform economy and sharing”

Urbanization:
“Need for better tools for planning, information in 3D/4D. Also increased need for tools to deal with illegal buildings and slums”

“Will lead to increased importance of rights, responsibilities and restrictions affecting land, real estate and infrastructures”
Feedback Comments

Digital transformation:
“We are moving into an age where our core business will be delivering ‘digital trust’. Digital networks may become so strong that the land agencies may have no added value anymore if they keep operating in the ‘classical’ way”

Differentiated livelihoods:
“The shift towards a more liberal direction regarding the perception of the relationship between citizens and public institutions result in that the rights and obligations nowadays start from the individual and it is then for the public institutions to respond to the citizens' preferences”

Decentralized environments:
“PPP. Authorities needed only for “stamps”, private companies’ role is increased”
Specific Trends/Aspects Related to the LA Domain

- Information security and integrity aspects related to new technologies (the cloud, AI, blockchain, digital identity…), legislations (GDPR, PSI…), and policies (open data, EIF…)
- Respond to next-generation demands requires new digital workflows and new financial, information and business models (not just converting existing work processes into digital); scalable, evolutionary and trusted
- Policies, legal frameworks and governance are in many countries legacies of the passed preventing innovation and development rather than enabling it
- Crowd-sourcing
- Innovation through Open source, Policy hack, Society Hack…
- Geospatial as a facilitator and information carrier for e.g. integrated land development processes
- Risk inclination vs cost and trust as a government authority
- Ethical implications - human in charge vs machine-to-machine
- FELA, IGIF and Agenda 2030
Prioritize the LA specific trends/aspects according to their respective impact on land administration arrangements (distribute 25 points)

- Collaboration, sharing and distributed solutions
- Impact of AI and robotics
- Next generation demands
- Open data and crowdsourcing
- Security and integrity related to emerging tech.
Digitally enabled ecosystem:
data-driven; user-centric;
system of key registers; wider
sets of information;
interconnected business
models; data of different
quality, information-oriented

Traditional/hierarchical:
rule based; silo approach;
non-integrated information
products and services;
centralized; one or few
data-owners; process-
oriented

Private

Public

LA Scenarios
LA Scenarios

As-a-service
- Defined services
- Process-oriented
- Regulated
- Centralized
- Data custodians
- PPP arrangements

Distributed
- Multiple actors and data sets
- Less or no regulation
- Open data
- Automated decisions
- Distributed value
- Crowdsourced
- Organic, evolutionary
- Interconnected business models

Traditional/Hierarchic
- Centralized, hierarchic
- Regulated
- Process-oriented
- Silo/redundancy
- Robust but difficult to evolve
- Non-integrated information and services

Conventional
- Integrated gov't data, products and services
- E-government
- Information-oriented
- The once-only-principle
- Customer-oriented
- Fundamental data sets
- Economies of scale

Platform
- Digitally enabled ecosystem
- Economies of scale
- Multiple actors and data sets
- Open data
- Automated decisions
- Distributed value
- Crowdsourced
- Organic, evolutionary
- Interconnected business models
Platform LA - Interoperability Solutions and Common Frameworks for Public Administration

The European Interoperability Framework (EIF)
Where would you position Land Administration in your country today?

Land Administration TODAY

5
Traditional/Hierarchical

0
Digitally enabled ecosystem

5
Public

0
Private

Submit

Diagram:
- As-a-service
- Distributed
- Conventional
- Platform

Axes:
- Traditional/Hierarchical
- Digitally enabled ecosystem
- Public
- Private
Guiding principles 2035

• Ensure that land administration systems create, increase and deliver value with respect to relevance, liability and trustworthiness related to land market activities and to policy and societal issues that is governed/supported by land administration arrangements
Self-assessment framework

• Based on FELA Principles
  • Strategic Enablement
  • Transparent and Accountable
  • Reliable, Accessible and Easily Used
  • Collaboration and Cooperation
  • Integrative Solution
  • Sustainable and Valued
  • Leadership and Commitment

• A set of strategic questions to each principle to assess the value of each of the four scenarios for a given nation and its land administration arrangements
Next Steps

• The Operational Framework
  — Trend analysis
  — Scenario descriptions
  — Guiding principles 2035
  — Country assessment framework
• Consultation workshop, Geneva, 3 March 2020
• UNECE Report

Objective: To be used as a tool to explore the future of land administration and to facilitate national LA strategies in order for the authorities to stay relevant
Thank you for your attention

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