Are We Embracing the Global Transformative Forces?

Fredrik Zetterquist, Chair UN-ECE WPLA
The “doughnut” of social and planetary boundaries for development

Just, Secure, Inclusive, Sustainable

Transformation within boundaries
<table>
<thead>
<tr>
<th>Sub-theme</th>
<th>Relevant 2030 Sustainable</th>
<th>Relevant New Urban Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure equitable control</td>
<td>107, 6, 88, 104, 69, 71</td>
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The Swedish Delegation for the Agenda 2030

An independent committee commissioned to:
• Assess the extent to which Sweden fulfils the goals and targets
• Submit proposals for an overarching action plan for Sweden’s implementation
• Disseminate information on examples of best practice in the area of socially, economically and environmentally sustainable development
## INVERKAN INTERNATIONELT

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

**Notes:**
- This image appears to be a complex Excel spreadsheet with various data points and grid elements.
- The columns and rows seem to represent different categories or variables.
- The cells contain T's and F's, indicating true or false states for each combination of variables.
- The spreadsheet includes headings at the top, which might indicate sections or categories such as "Arbetsområden" and "Enhetliga delar av samhället".

**Questions:**
1. What are the columns and rows representing?
2. How are the T's and F's used in this context?
3. What is the purpose of this spreadsheet?

**Translation:**
- "Arbetsområden" translates to "Work Areas".
- "Enhetliga delar av samhället" translates to "Units of the community".
- "VISA inverkan-internationell" translates to "VISA international impact".
- "VISA inverkan-nationellt" translates to "VISA national impact".
- "VISA nativitet" translates to "VISA nativity".

**Additional Information:**
- The data seems to be used for analysis or assessment purposes, possibly related to social or demographic variables.
Lantmäteriet’s contribution of particular importance to the SDGs

1.4 control over land and other forms of property
2.3 secure and equal access to land
5.a women access and ownership and control over land
6.5 water resources management
9.1 sustainable infrastructure
11.2 sustainable transport systems (road and rail)
11.3 sustainable urbanization
11.5 increased ability to adapt to climate hazards
15.1 preserve and restore inland freshwater ecosystems
15.2 sustainable use of forests

A separate department is established within the agency responsible for issues on sustainable development and the fulfillment of the SDGs.
Institutions (e.g. for land governance) constitute the glue of trust from which the society and individuals can grow.
The Swedish government 2015: “Digitization is the single biggest change agent in our time and affects all aspects of society”

The bottleneck is not the tools but rather for us to formulate the problems and define what we want to achieve
Global change agents

- Digitization
- Globalization
- Urbanization
- Climate change
- Individualization
- Knowledge-based society
- Diversity and pluralism
- Technological advancement
- Sharing economy
- Mass migration
- Agenda 2030

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

Property Transfer

Smart Contracts
For a faster and safer deal.

1. Purchase → 2. Bill of sale → 3. Title Deed

Logged in (Mr. Smith). Buyer.

Wait for the seller to sign the contract

Logged in (Mrs. Brown). Seller.

Sign the purchase agreement
Read the document by clicking the clip below.

SIGN
Client expectations

- Online citizens with access to location information
- Virtual knowledge and devices for record, store and index things we see and hear
- Mobile devices for locating boundaries and transactions
- People want to be more self-reliant with access to right information to make sound judgements for themselves
- Land information needs to be available "on demand"
- Origin of information must be clearly defined (crowd sourced data vs authoritative data)
- RRR in 3D/4D and superimposed on the reality
- Urban vs rural – different demands on public services
- Legal and environmental information will increase – add pressure on land adm systems
Initial expectations vs perceived performance of the services

• Convey in a good way what services you provide, i.e. produce the right level of expectations

• Live up to these expectations in an equally good way

• Note: initial expectations can have even bigger impact on the final satisfaction level of the user than the actual perceived performance level of the services provided
Increased transparency and influence

Legislation has not changed, the diary page is mandatory in the property formation procedure.

But transparency has increased, when property owners can follow the actions taken in real-time.

Changing the balance of power
Expectations and quality

The Swedish cadastre – a rough timeline

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Expectations and quality

There is a continuing change process between land agencies and the market, new business models occur and we need to adapt to that and make clear our responsibility.
Digitization of the planning and building process
Fragmented initiatives

1. Grundläggande samhällsbyggnadsinformation
   - Svensk Geoprocess - Lantmäteriet
   - Geodata3D - Lantmäteriet
   - Informationsförsörjning för planering, fastighetsbildning och bygglöv – Smart Built Environment
   - Nationell geodatastrategi – Lantmäteriet och Geodatarådet
   - Informationsmodellering BIM – Trafikut
   - CoClass - Svensk byggtjänst

2. Tidiga skeden, idé och förslag
   - Flertalet av de stora arkitektföretagen använder 3D IT-stöd BIM och GIS för tidig projektering, analyser och visualisering av utbyggnadspaket inklusive VR och AR
   - Min stad – Göteborgs stad
   - SyboCity Approach
   - Citylab – Sweden green building council

3. Regional planering IT-stöd för framtagande av regionala strukturbilder och utvecklingsplaner i ex inom RUF 2050 processen i Stockholm

4. Översiktsplan och detaljplan
   - Informationsförsörjning för planering, fastighetsbildning och bygglöv – Smart Built Environment
   - Digitalisering av gamla och nya detaljplaner till vektorformat med ny planstandard som grund. Pågår i ett antal kommuner
   - Örebronmodellen, beskriver effektiv handläggning av planläggning i Örebro kommun
   - Framställning av generella planer, beslut om detaljer i planen tas i bygglövsområdet

5. Medborgadialog, samråd mm
   - Ett antal kommuner använder visualisering i olika former för att visa pågående utbyggnadspaket regionalt och i kommunen.
   - eGovHack
   - Mina kvarter
   - Future City
   - Urban eco
   - Exempel på dessa är Stockholmsgubben och dialogpaviljongen
   - Minecraft nationellt och bland kommunerna, ex. Alingsås

6. Fastighetsbildning
   - Informationsförsörjning för planering, fastighetsbildning och bygglöv – Smart Built Environment
   - Koordinatbestämda fastighetsgränser – Lantmäteriet
   - Smarta plan-, bygg- och förvaltningsprocesser över hela livscykel – Smart Built Environment

7. Bygglöv
   - Får jag lov Digital ärendeckedja, från ansökan till beslut och arkivering, ett 20 tal kommuner deltar - Boverket
   - Mitbygge, införande av digital ansökan pågår i ett antal kommuner.
   - Informationsförsörjning för planering, fastighetsbildning och bygglöv – SmartBuilt Environment

8. Detaljprojektering
   - Införande av BIM i stora utbyggnadspaket,
     - ex. Sjösten, Hagastaden m.fl.
     - BIM och juridik – BIM Alliance
     - Digital kontrollplan

9. Byggande
   - Införande av BIM i stora utbyggnadspaket,
     - ex. Sjösten, Hagastaden m.fl.
     - BIM och juridik – BIM Alliance
     - Digital kontrollplan

10. Förvaltning och återanvändning
    - Nationella riktlinjer – Smart Built Environment
    - Smarta plan-, bygg- och förvaltningsprocesser över hela livscykel – Smart Built Environment
Are the authorities needed?

Yes as

Experts
Facilitators
Communicators
Problem-solvers

...and to a less extent handling of cases

...and it will go faster than we think!
Involvement in state priorities and investigations

- Housing - 700 000 in 10 yrs
- Climate change initiatives
- Smart cities
- Digital first – speed up planning and building process
- E-government
- Framework for national 3D geospatial data
- Blockchain technology
- Standardized geospatial processes with local gvt
- Update national Geospatial Strategy focusing on solving future challenges in the society
- Licensing of dissemination of information from UAVs
- 3D/4D and closing the gap between BIM and GIS
- Open data - consequence analysis

- Increased interaction
- More complex decision-making processes
- Make necessary priorities
- Control processes
- Designate accountability
- Increased business intelligence and international collaboration
External analysis more important

Scenarios vs vision and prognosis
Agile organisation

Provide the organisation with opportunities and prerequisites to quickly adapt to a changing environment:

• The management at different levels defines the framework for the employees to relate to and the team independently decide how the work is carried out
• Individuals and interactions more valued than processes and tools
• The leader’s role is more to coach and inspire and believe in their staff and that they can perform their duties without being detail-driven
• The agile methodology leaves more space for innovations at Lantmäteriet as compared to the more rigid process-centric methodologies
Innovative organisation

• 24 hrs Hackathon, internal innovation day

Brainstorm  Construct  Keep track of time  Present  Vote, win, celebrate

• Hack for Sweden, open for the public
  – Combine open data from 23 authorities
  – SDGs, sustainable cities, information society
Regulatory changes

• Legal revisions to safeguard efficient implementation of transparent procedures and services which are made digital
• Automated coordination with other actors involved
• Introduced e-services for property owners through automatically generated decisions in land registration services
• A more “firm” legislation with less room for deliberate balancing and at the same time provide for more transparency
Attract new talents

• The most important core values to attract new talents:
  – to offer them to be part of, and contribute to, the development of the society
  – personal satisfaction of providing others, i.e. the general public, with an objective, impartial, apolitical and high-quality service
  – to offer challenging and varying work tasks in an environment that rewards good performance and innovation
Inclusion of the young generation

New ways of marketing
• Maps of Sweden tailored for Minecraft
• Social media
• Geoschool

Characteristics
• Recognize the global transformation forces as something natural in their perception of the world
• Put unconditional pressure for new expectations of public performance
• Neither tied to old decisions and behaviors, nor to obsolete ways of working
• Interest in early adaption to new technologies and a different way of living, enable them to think more open-minded
• Lantmäteriet today has a lot wider spectra of individuals with different backgrounds, competences and age
THANK YOU!

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