



A SMARTER DIGITAL PROCESS FOR URBAN PLANNING AND BUILDING

MALIN KLINTBORG, LANTMÄTERIET



THE GOVERNMENT

Vision for digitalisation:

"Sweden will be the best country in the world at using the opportunities offered by digitalisation"

Goal of housing and community planning :

"The goal is to provide all people in all parts of the country with a socially good living environment where long-term good management of natural resources and energy is promoted and where housing construction and economic development are facilitated"

Goal for innovation:

"Strengthened conditions for innovation and renewal are one of the sub-goals under the Business Policy."

This sub-goal concerns business life's ability to renew itself and the Swedish innovation climate. It contains activities and measures aimed at the development of new knowledge that may be translated into new or developed goods and services or other economic benefits."

GOVERNMENT ASSIGNMENTS

The Swedish mapping, cadastral and land registration authority:

- *assignment to establish a digital infrastructure for making standardized datasets available in the urban planning and building process.*

The National Board of Housing, Building and Planning

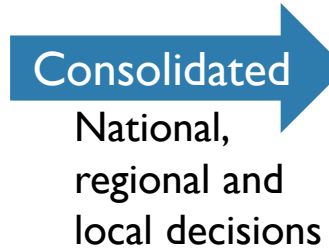
- *assignment to act for solutions that promote uniform application of the Planning and Building Act in a digital environment*

OVERALL VISION – "THE ECOSYSTEM"

Ongoing national, regional and local visualizations, simulations, assessments, analyses and recommendations



Updated current situation "digital twin"

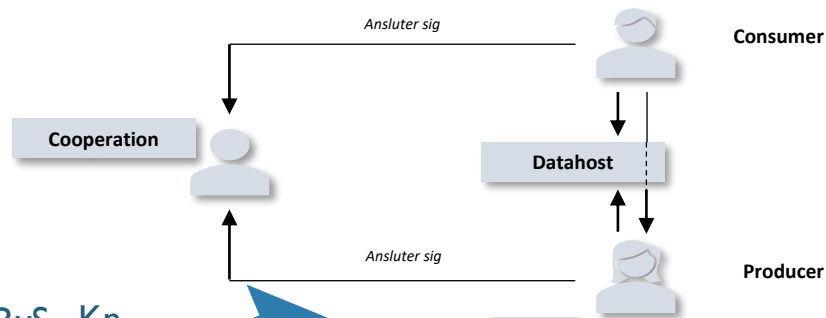


e-services for citizens

Administrative support for administrators



Original document e-archive
Final Archives of Historical Documents



LM SGU SjV TrV RyS Kn



Collaborative collection of data

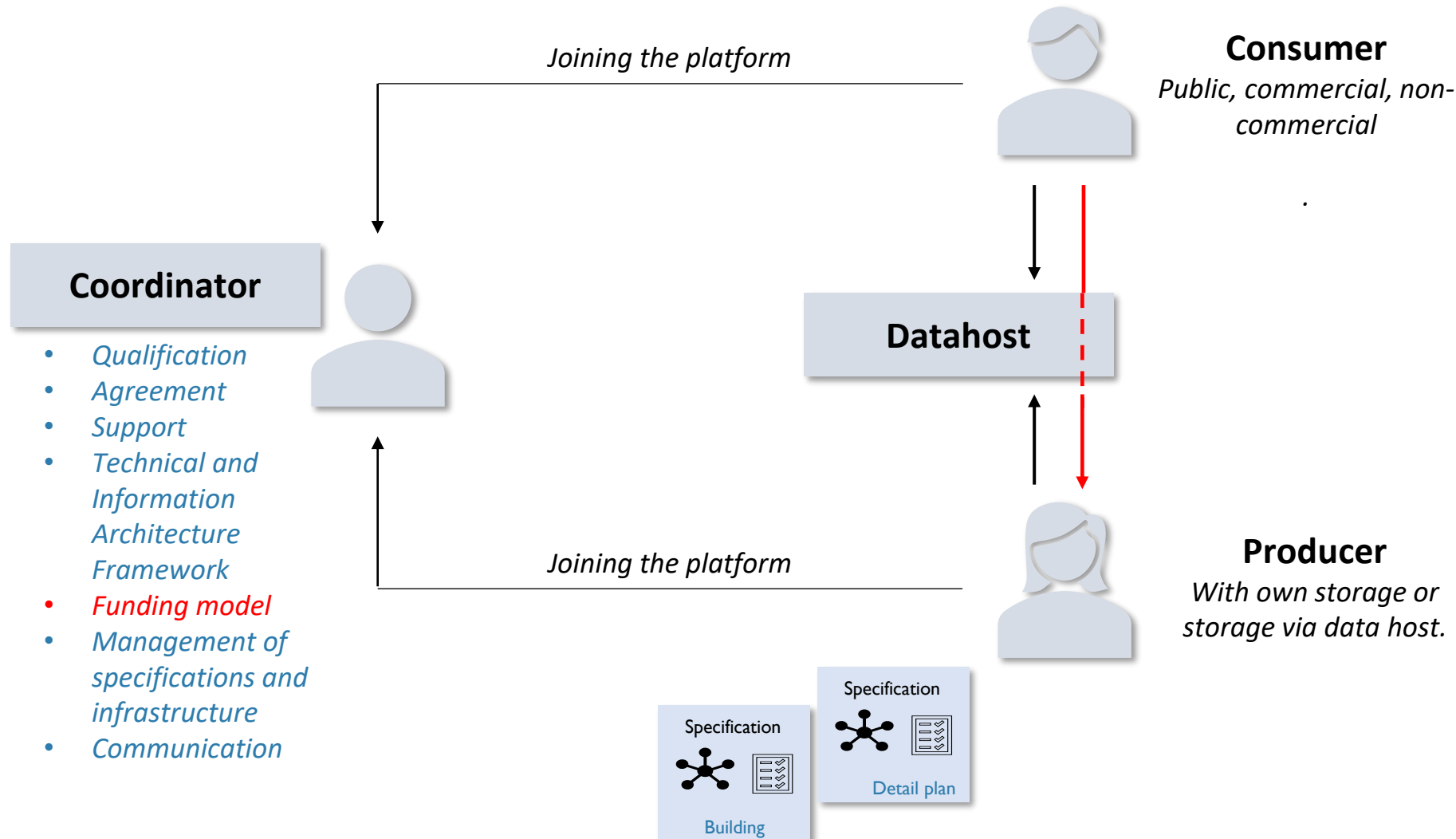


Collaborative data-sharing



WHAT HAS LANTMÄTERIET DELIVERED – NGP (NATIONAL GEODATA-PLATFORM)

WWW.LANTMATERIET.SE/NGP



INFORMATION ARCHITECTURE FRAMEWORK

Part A: Introduction and basic principles

The purpose of the principles is to achieve a common understanding of what is important and why something has been designed the way it has been designed. The principles can also be used when an issue arises where there are no guidelines for resolution.

Part B: Resource models

A resource model is an information model that serves as a common resource for other information models. The purpose is reuse and to manage information in a uniform way, regardless of the information area.

Part C: Modeling and Specifications

Part C describes rules and guidelines for creating uniformity, regardless of the information area and actor. This applies to information modeling, conceptual modeling, notation to be used, how it should be applied, how specifications should be written and designed, and more.

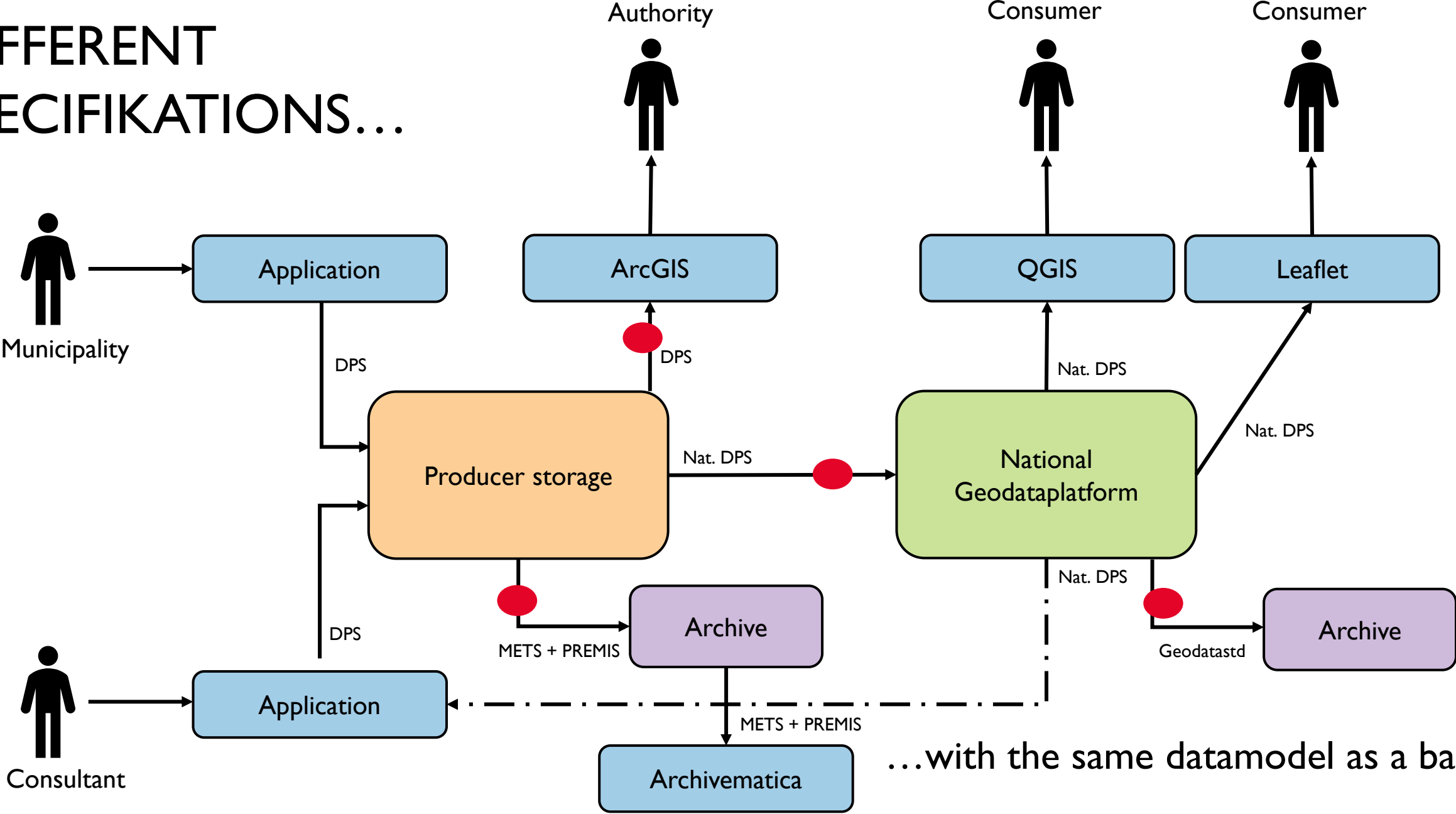
Part D: Technical realization

Part D describes how information models should be interpreted and realized technically.

Part E: Application of standards

Standards are an important part of a national making data available. However, there are situations when standards contradict each other, do not promote user needs or for some other reason cannot be used. Part E describes the standards used, as well as which parts.

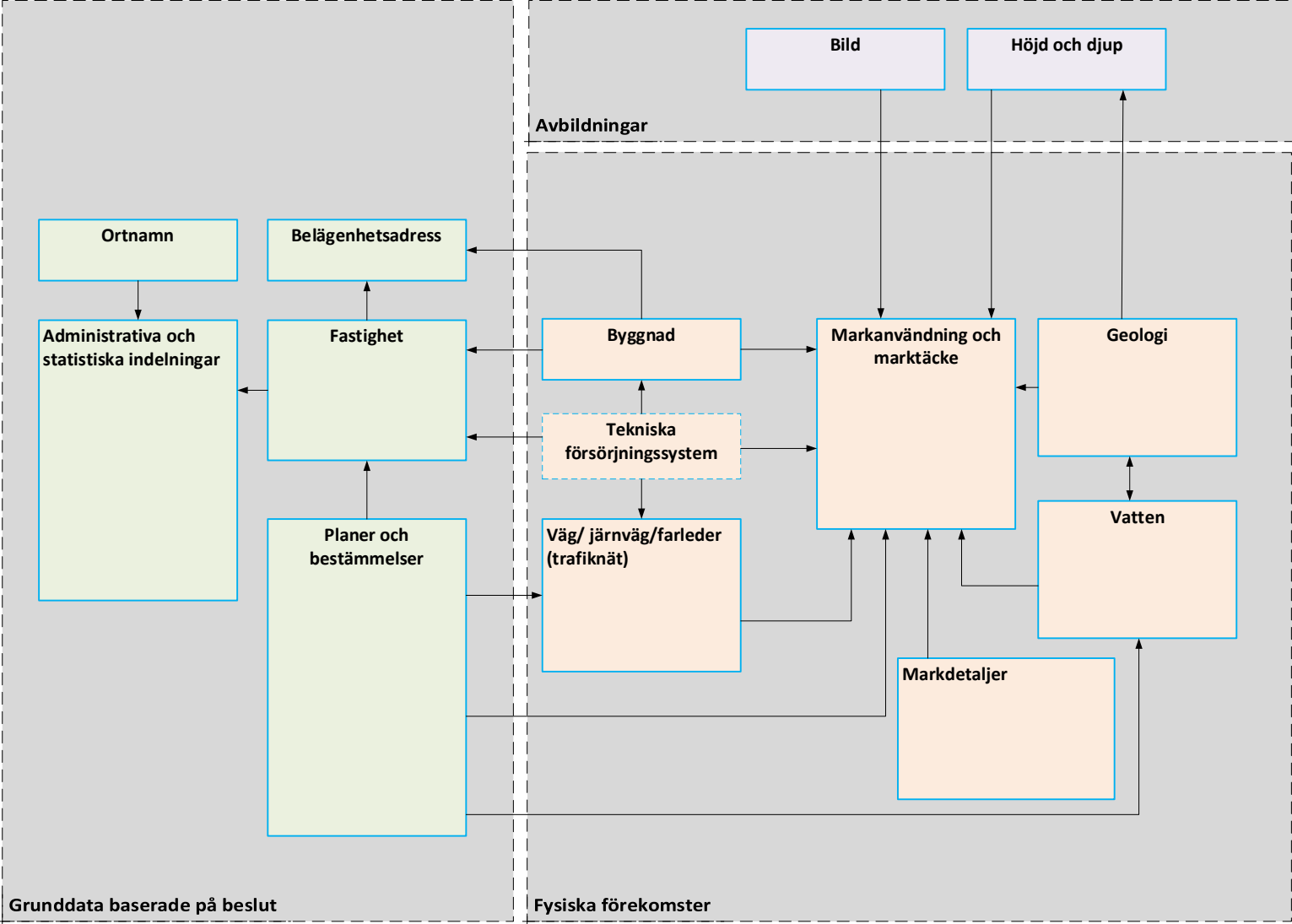
DIFFERENT SPECIFIKATIONS...



...with the same datamodel as a base.

Overall model of real estate and geographical information

>150 data sets



WHAT IS NEW?

- Standardization on "basic" or "core" data – not products.
- From 2D to 3D
- No new national registers – but a delivery solution enabling sharing of nationally standardized, open data.
- Enduser driven design of data.
 - Large scale of cooperation between all authorities and private parties.
- Information designed to meet demands for information security and for aggregated data.
- Information metadata integrated in the information model
- Development of laws and regulations

REGULATIONS THAT SUPPORTS THE PURPOSE

- Boverket's ordinance and regulation – new detailed plans

Purpose – require detailed plans to be developed as digital models

- Boverket's plan provision catalogue

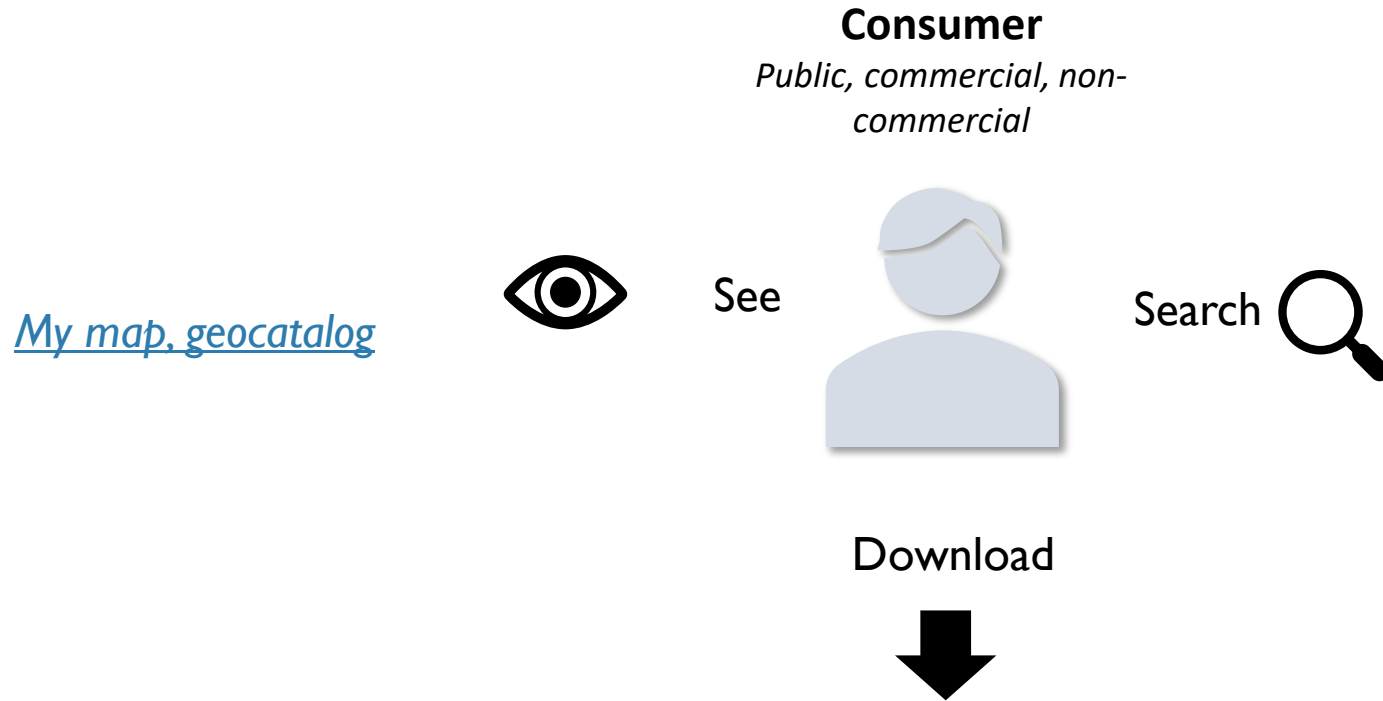
Purpose – ensuring standardized compliance with PBL (planning and building regulations)

- Municipality information owner for detailed development plans according to the Geographical Environmental Information Ordinance (INSPIRE) – digital detailed plans

Purpose – standardize the municipalities' digital information content in the detailed development plan and enforce municipalities to provide the plans nationally.

WHAT HAVE WE ACCOMPLISHED TOGETHER?

- ONE ACCESS POINT TO NATIONALLY STANDARDIZED DATA, NGP



Attribut	Datatyp
Generellt	
feature.typ	string
feature.etikett	string
Detaljplan	
detaljplan.objektidentitet	uuid
detaljplan.beteckning	string
detaljplan.namn	string
detaljplan.status	string
detaljplan.datumStatusforandring	date
detaljplan.typ	string
detaljplan.datumLagakraft	date
detaljplan..kvalitetsbeskrivning.foljerForeskrift	boolean
detaljplan.kvalitetsbeskrivning.korrigeradeGranser	boolean
detaljplan.kvalitetsbeskrivning.forbattratUnderlag	boolean
Planbestämmelse (ovan attribut plus nedan)	
bestammelse.planbestammelsekatalogreferens	uuid
bestammelse.bestammelseformulering	string
bestammelse.bestammelsevarde.variabelvarde	number
bestammelse.bestammelsevarde.vardetyp	string
bestammelse.bestammelsevarde.enhet	string
bestammelse.kategori	string
bestammelse.anvandningsform	string
bestammelse.underkategori	string
bestammelse.kvalitetsbeskrivning.foljerForeskrift	boolean
bestammelse.kvalitetsbeskrivning.korrigeradeGranser	boolean
bestammelse.kvalitetsbeskrivning.forbattratUnderlag	boolean

SURFACE DETECTED

▲ 55.644072, 13.220700 ± 5m 🕒 230° SW

□ 113m x 5.0m x 94.1m (1:1)

▲ 55.645234, 13.221036 ± 5m 🧭 94° E



TACK! VI FINNS PÅ...

WEBBPLATS	www.lantmateriet.se
LINKEDIN	www.linkedin.com/company/lantmateriet
FACEBOOK	www.facebook.com/lantmateriet
INSTAGRAM	www.instagram.com/lantmateriet
KONTAKT	kundcenter@lm.se
TELEFON	0771-63 63 63