NATIONAL COLLABORATION – A KEY TO SUCCESS

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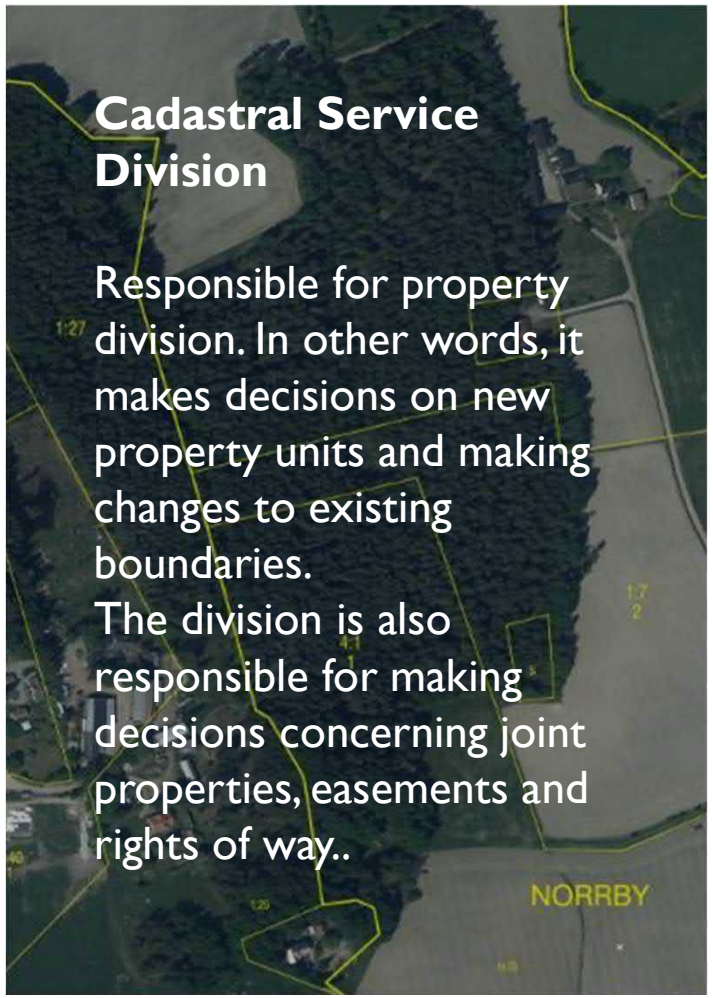
LANTMÄTERIET

LANTMÄTERIET, SINCE 1628

- The Swedish mapping, cadastral and land registration authority
- Belongs to Ministry of Finance.

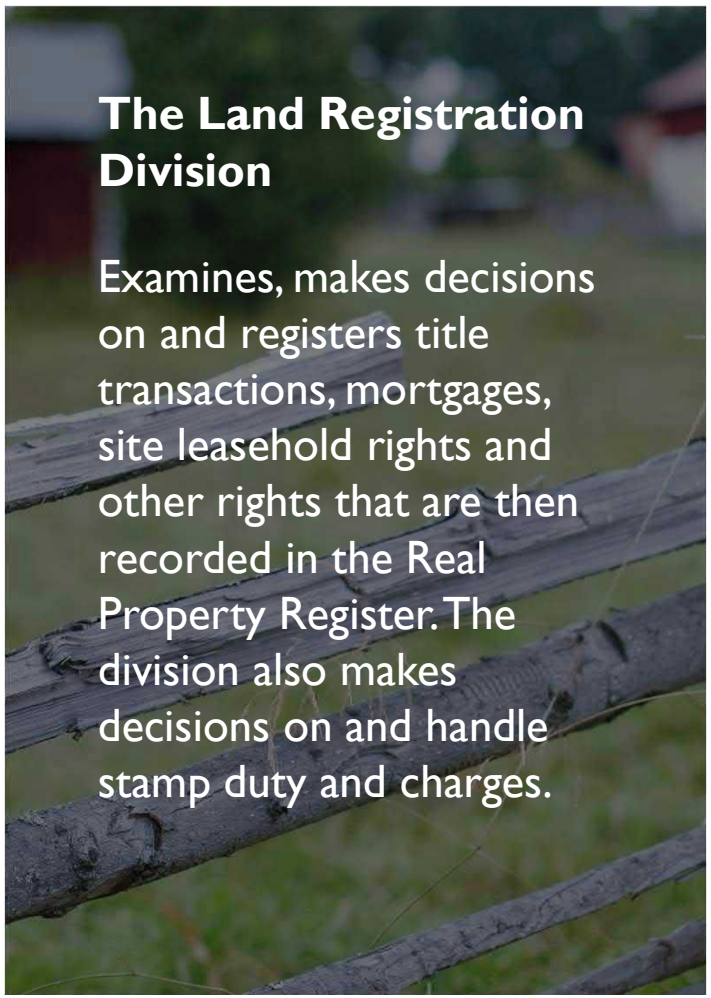
We want to contribute to a sustainable society with more efficient building and planning processes as well as economic development.

OUR CORE PROCESSES



Cadastral Service Division

Responsible for property division. In other words, it makes decisions on new property units and making changes to existing boundaries.
The division is also responsible for making decisions concerning joint properties, easements and rights of way..



The Land Registration Division

Examines, makes decisions on and registers title transactions, mortgages, site leasehold rights and other rights that are then recorded in the Real Property Register. The division also makes decisions on and handle stamp duty and charges.

The Geodata Division

Collects, stores and update information about Sweden´s geography and properties, and makes this information available to the general public, the public sector and the private sector.

WORKING TOGETHER WITH A NUMBER OF MINISTRIES

Ministry of Finance
Report to. Open data

Ministry of Environment
Inspire, Height model

Ministry of Justice
Development of law

Ministry of Education and Research
Research and Education

Ministry of Defence
military geospatial information, image and information secrecy, disaster and preparedness

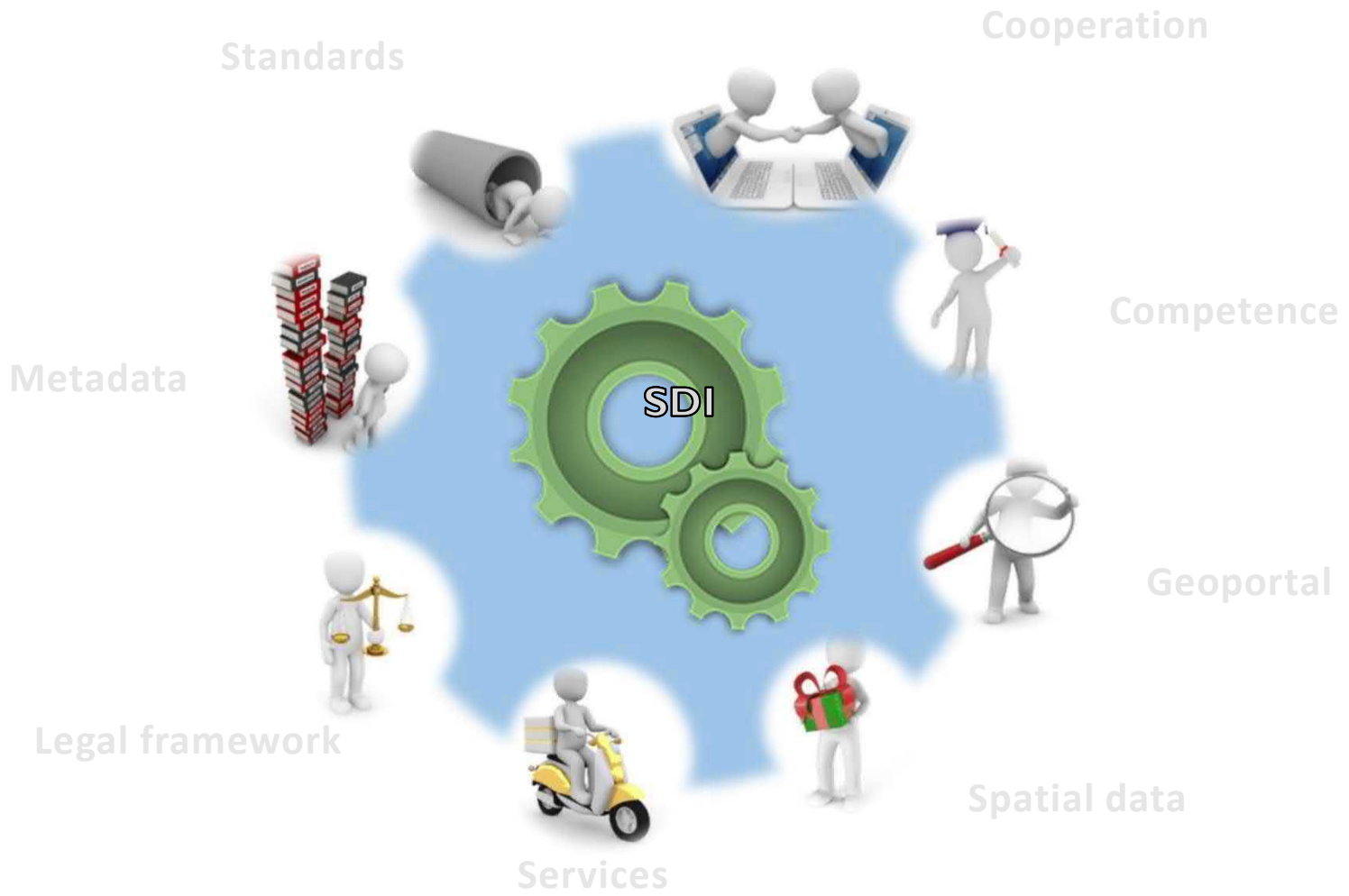
Ministry of Culture
Place names

Ministry of Enterprise and Innovation
Laser scanning for forestry purposes

Ministry of Infrastructure
digitalisation, PSI, planning and building process, broadband and access to land

Ministry of Foreign Affairs
International services, national boarders

COMPONENTS IN AN INFRASTRUCTURE! DO YOU AGREE?



GEOSPATIAL INFORMATION IN SWEDEN

Lantmäteriet leads the development regarding a homogenous and sustainable national geospatial infrastructure. We are also responsible for several parts including the majority of the geospatial information, land management, geodetic infrastructure and place names.

Agencies as Swedish Maritime Administration, Geological Survey, Swedish Environmental Protection Agency and more contribute with their geospatial information

A SUCCESSFUL NATIONAL COOPERATION!

THE NATIONAL STRATEGY FOR GEODATA 2021-2025

Lantmäteriet in cooperation with participating authorities and organizations in the Geodata council

Vision

” Open and usable public geodata are the foundation for a robust and sustainable

Sweden, freely available for the whole society.”


Goal
1
Geodata is open
Geodata is available
3
2
Geodata is useful
Collaboration is
well developed
4

CHALLENGES FOR SOCIETY

Sustainable city development

Smart rural areas

Climatization

A secure and robust society

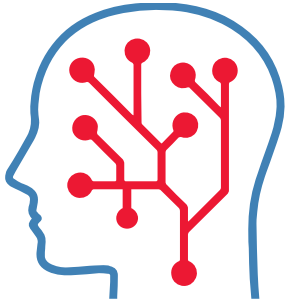

Sustainable city
development

The steps towards a digital, data-driven urban planning and building process

Digitize, collect and structure data – secure information management

Digitize your workflow

Enables digital dialogue



Automate

The Real Property Register - the history

- 1227 – Oldest document about land transfer
- 1628 – Establishment of mapping

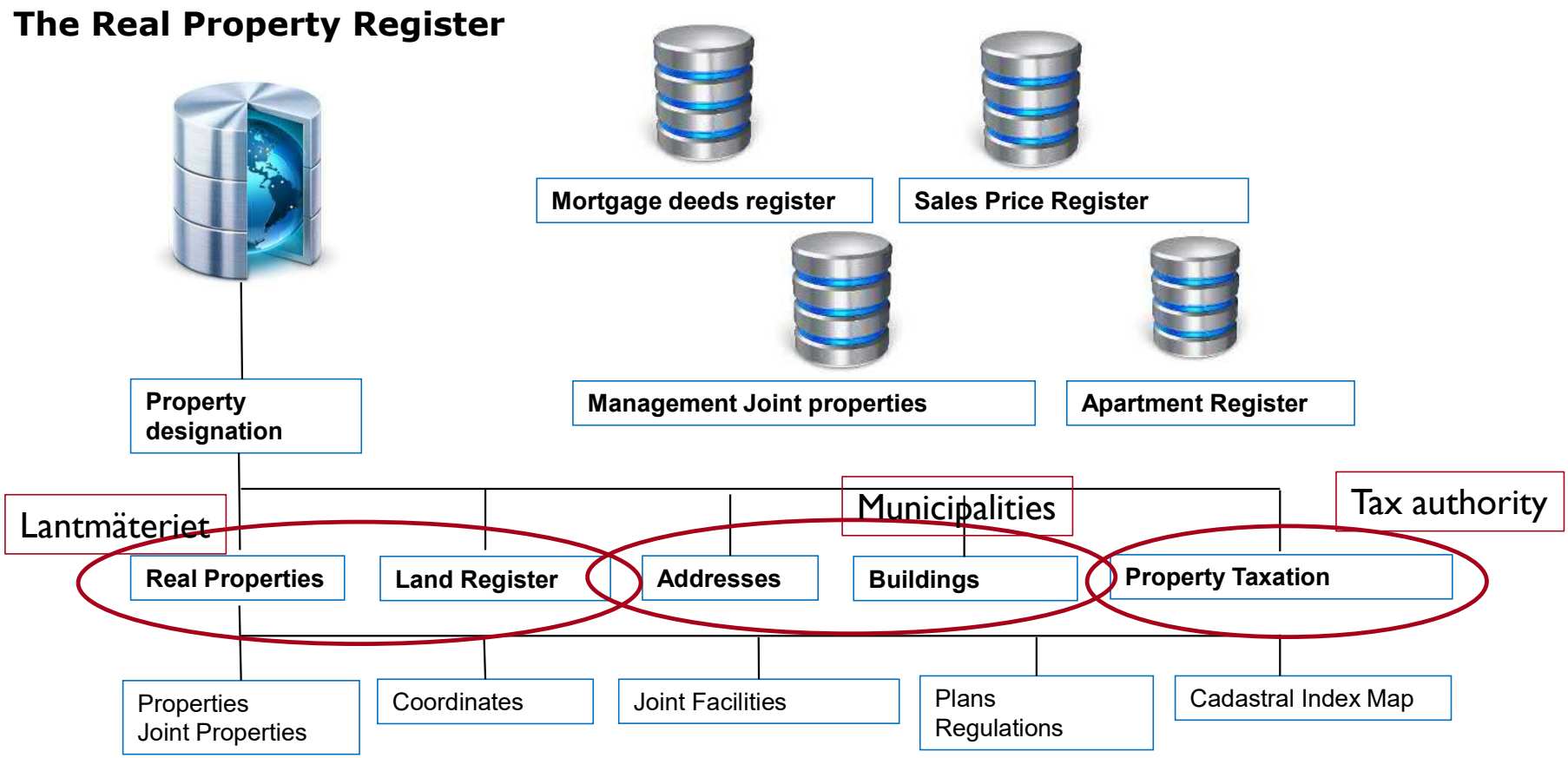
Several different analogue registers as e.g.:

- Rural property register
- Urban property register
- The Courts - The land books
- Local Tax authority - Property taxation and land use
- The Municipalities - Addresses and plans

The Real Property Register - from analogue to digital

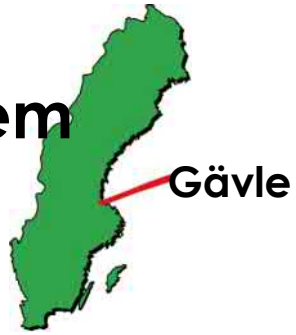
- Started in the mid 1960:s
- Several governmental investigations and committee reports
  - Legal issues
  - Economical issues
  - Technical issues
  - Integrity issues
- 1970 - parliament decision
- The separate manual real property registers and land book etc were transferred to one new integrated and computerized property register
- 1976 - first pilot area
- 1995 - national coverage established

PROPERTY INFORMATION



The System Structure

- **Central system**
- **Local use**



Maintenance

Dissemination

The Land Data Bank System

e-services

Government Cadastral

Municipality Cadastral

Land Book Office

Municipality

Others

Core/Basic

Copy

Product Value added services

Local systems Integrated systems

e-services

Data exchange

e-services

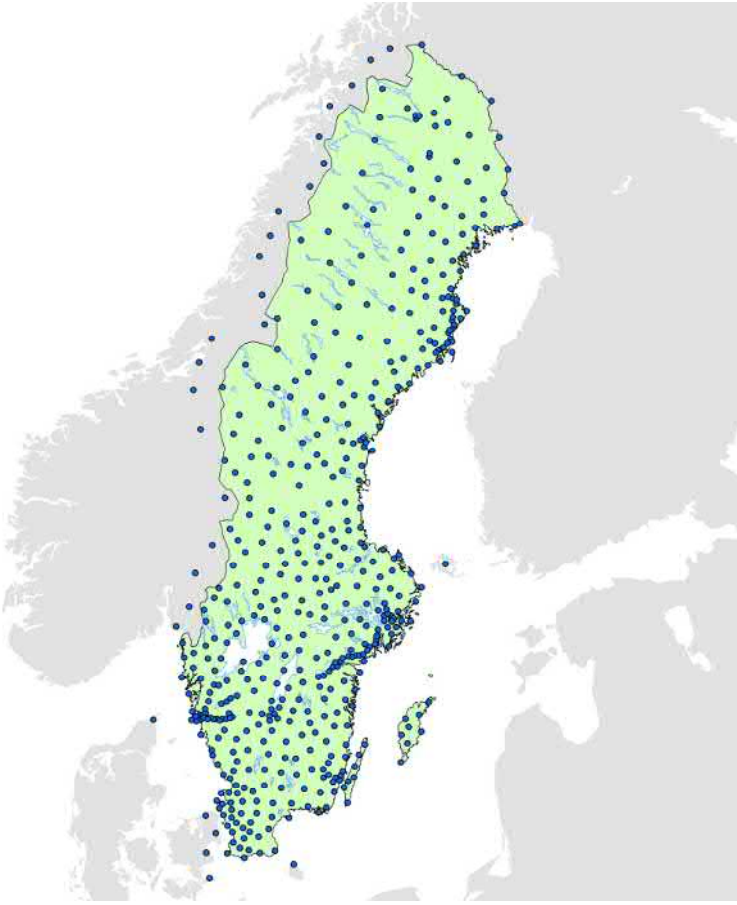
Taxation

Civic registration

Statistics Sweden

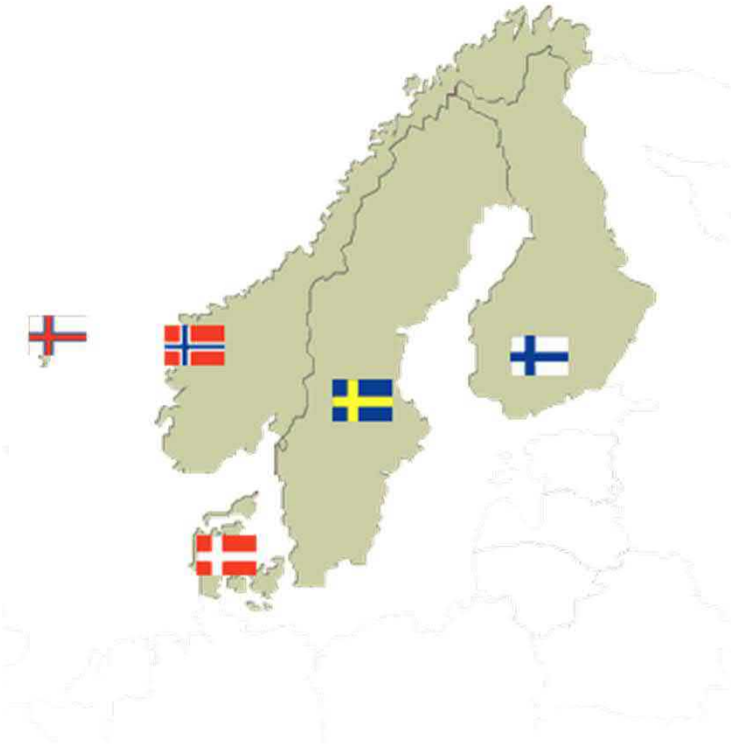
SWEPOS®

- A national network of permanent reference stations and a part of the national geodetic infrastructure
- The investment is covered mainly by governmental funds
- The operation costs including future upgrades are covered by user fees



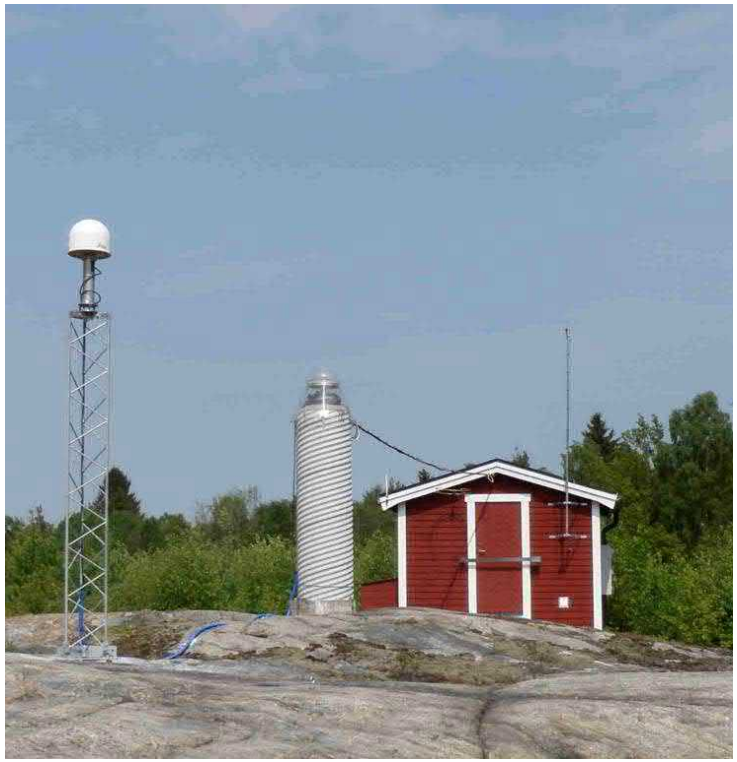
National and international partners

- Established in cooperation with Onsala Space Observatory/Chalmers and RISE Research Institutes of Sweden
- Partners for increased and widen use of SWEPOS data
- Cooperation with Trimble VRS now, Leica SmartNet, TopNet Live, CNH Industrial and Sapcorda to increase the use of SWEPOS data.
- One common geodetic infrastructure for GNSS, no need to finance several separate geodetic infrastructures.
- Data exchange with Norway, Finland and Denmark



A national network of permanent reference stations that provides

- Connections to the national reference frame SWEREF 99
- data for scientific studies, crustal motion, meteorology, etc.
- data to international organizations, IGS/EPN
- real-time and post-processing data for GNSS application
- 48 class A and 380 class B stations
- 24/7 service, support 06.30-20.30 weekdays. On-duty call all other time on a weekly schedule



SWEPOS® network RTK service for high precision applications

More than 5000 users (4500 subscribing users)

GPS, GLONASS, GALILEO and BeiDou (during 2022?)

Conclusions

Most of the work a governmental agency does in Sweden requires cooperation with other. No one can do it alone!

Governmental agencies are responsible for different parts of the national geospatial information. Lantmäteriet has taken the lead in securing an efficient use of the information to an user.

Digitalization, securing an infrastructure, standardization and more requires a government supporting the development including securing the finanzing.

If time permits - Review of the national boundary between Sweden and Norway

LANTMÄTERIET

Introduction

- Longest in Europe. Approximately 1620 km long
- Accurately demarked 1752–1766 with 293 markers, mainly stone cairns. Today 642 markers
- 170 km of the boundary is defined in lakes or follows small rivers

National stone cairn from 1752

A clear cutting shows the boundary

Ongoing review 2020–2024. Decisions by Swedish and Norwegian governments

- National boundary commissions apportioned by the governments at Lantmäteriet and at the Norwegian Mapping Authority
- The work is divided in such a way that Norway handles the south part and Sweden the north part
- The work is controlled through common visits along the boundary and through regular meetings

Stone cairn Rr 190 before and after restoration

Painting of royal inscriptions

GNSS (network RTK) positioning

Results so far in the ongoing review

- Approximately half of markers restored
- Some stake out and clearing completed
- Challenge to pass the border during the pandemic