Building and maintaining a point-based georeference framework for statistics –

preliminary conclusions from the GEOSTAT 2 project

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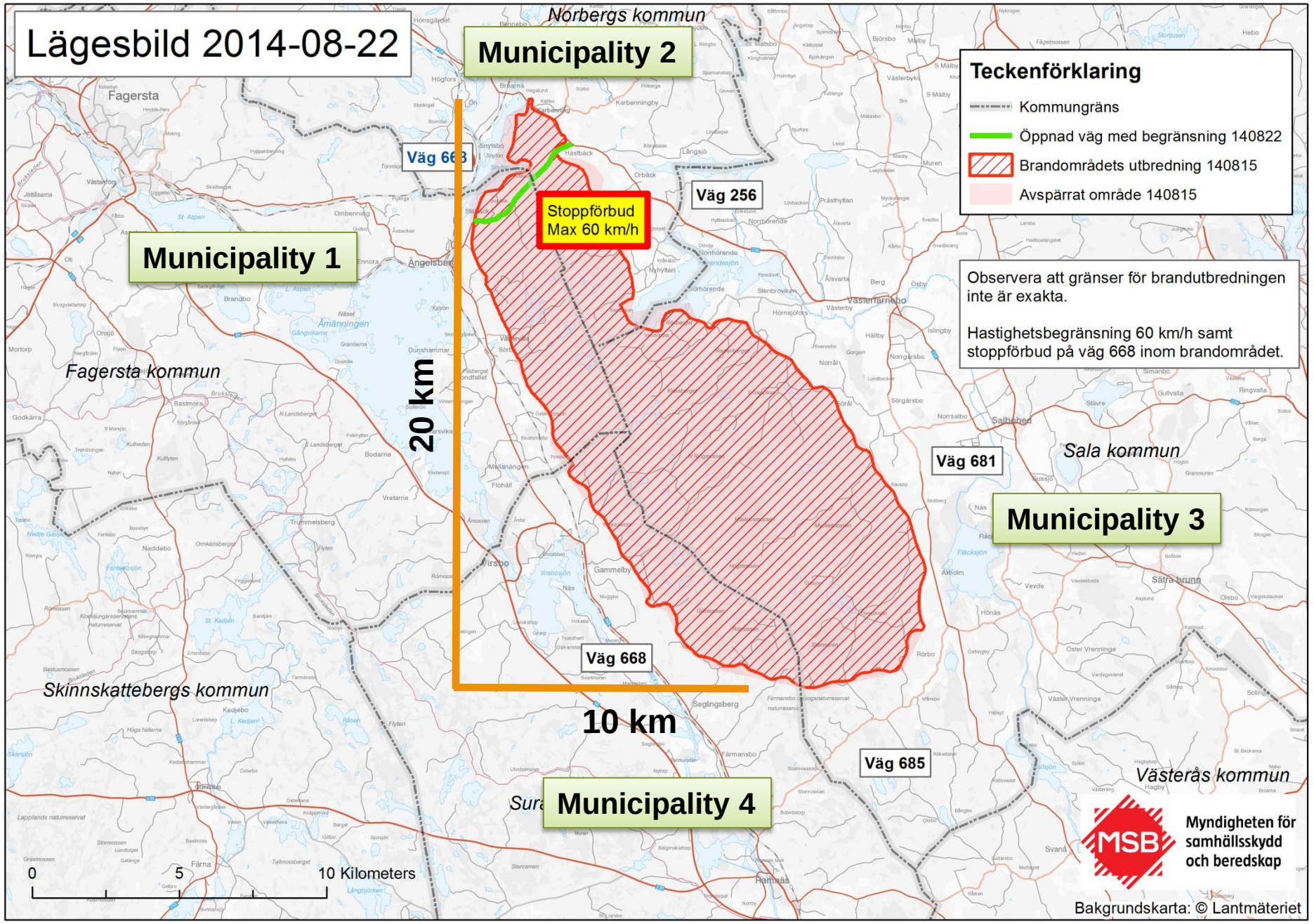
”Västmanland wildfire”
-On July 31-September 11 (2014)
-National emergency declared
-15 000 hectares destroyed
- 1 death
- Worst wildfire since 1950s


Lägesbild 2014-08-22
Municipality 2
Municipality 1
Municipality 3
Municipality 4
Norbergs kommun
Fagersta kommun
Sala kommun
Skinnskattebergs kommun
Västerås kommun
Väg 668
Väg 256
Väg 681
Väg 685
Stoppförbud
Max 60 km/h
20 km
10 km
Teckenförklaring
Kommungräns
Öppnad väg med begränsning 140822
Brandområdets utbredning 140815
Avspärrat område 140815
Observera att gränser för brandutbredningen inte är exakta.
Hastighetsbegränsning 60 km/h samt stoppförbud på väg 668 inom brandområdet.
0
5
10 Kilometers
Myndigheten för samhällsskydd och beredskap
Bakgrundskarta: © Lantmäteriet

This story is about need for:

- High resolution data
- Up-to-date information
- Data decoupled from administrative geographies
- Urgent response

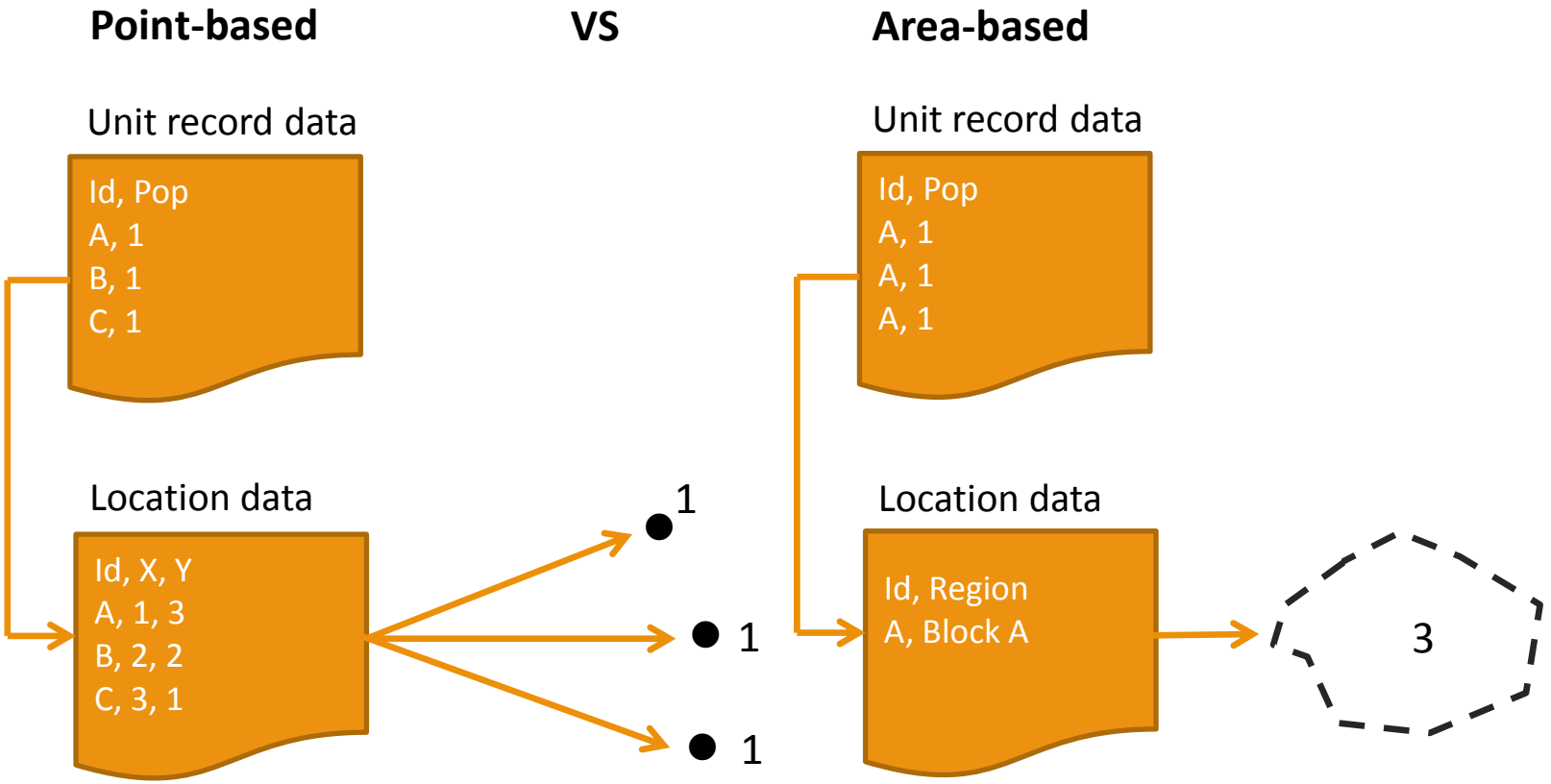
Challenge for NSIs to:

- Increase ability to link data to accurate and high precision spatial location (point-based foundation)
- Step-up use of administrative data to increase ability to enhance temporal resolution
- Create flexible production settings to provide a rich variety of statistical outputs (spatially and thematically) at low costs and with short production time.

The GEOSTAT 2 project:

- Propose a model for a point-based geospatial reference framework based on address, buildings and dwelling registers
- A priority of the proposed setup has been the ESS vision of a fully geocoded population census 2021
- The model could be considered suitable for statistics in the widest possible sense

A point-based foundation?



Why?

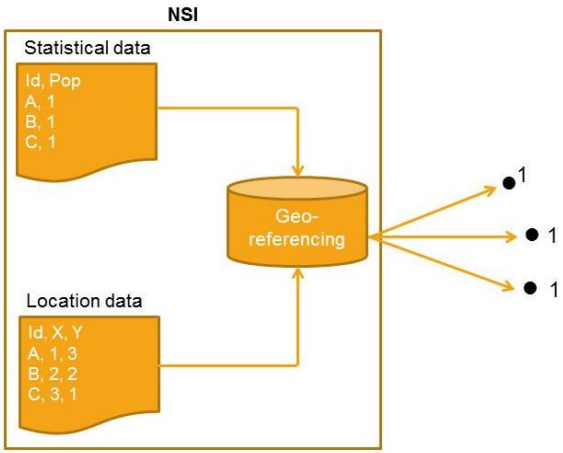
- Increases spatial resolution output (100 x 100 m)
- Increases flexibility by effectively deliver aggregations at any spatial unit (user defined geographies)
- Overrides problems emerging from changing geographies (territorial or statistical units)
- Use of non-aggregated point data contributes to better and more accurate spatial analyses within NSIs (proximity, access etc)

Generic characteristics

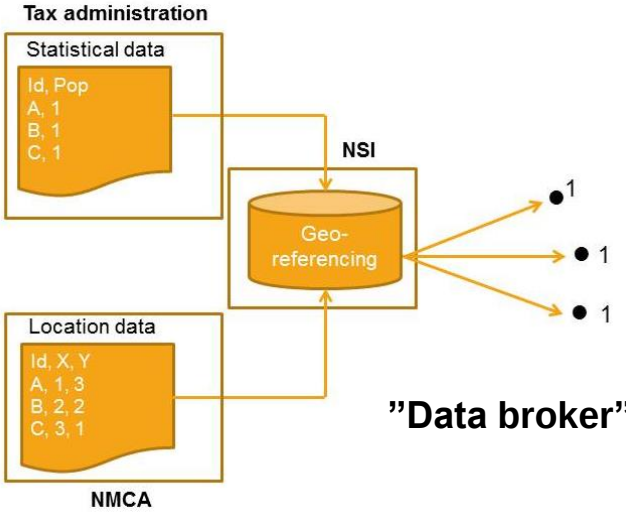
- Use of high quality point-based location data with time stamps (address, building/dwelling or cadastral parcel)
- Geocoding of statistical information at unit record level
- Use of standardized identifiers/geocodes to connect statistical information with location data

Three main approaches

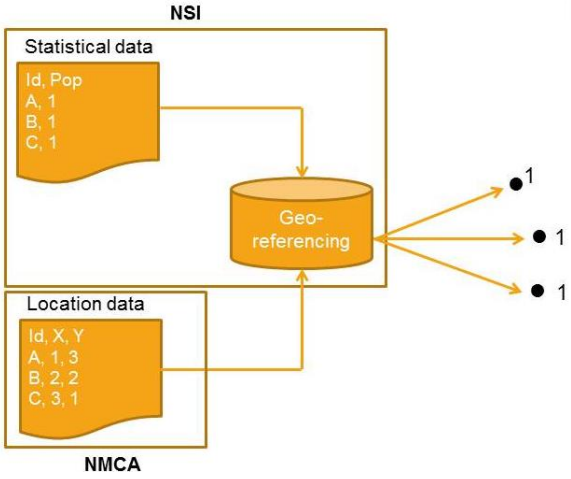
”In-house”



”Data broker”



”Hybrid”



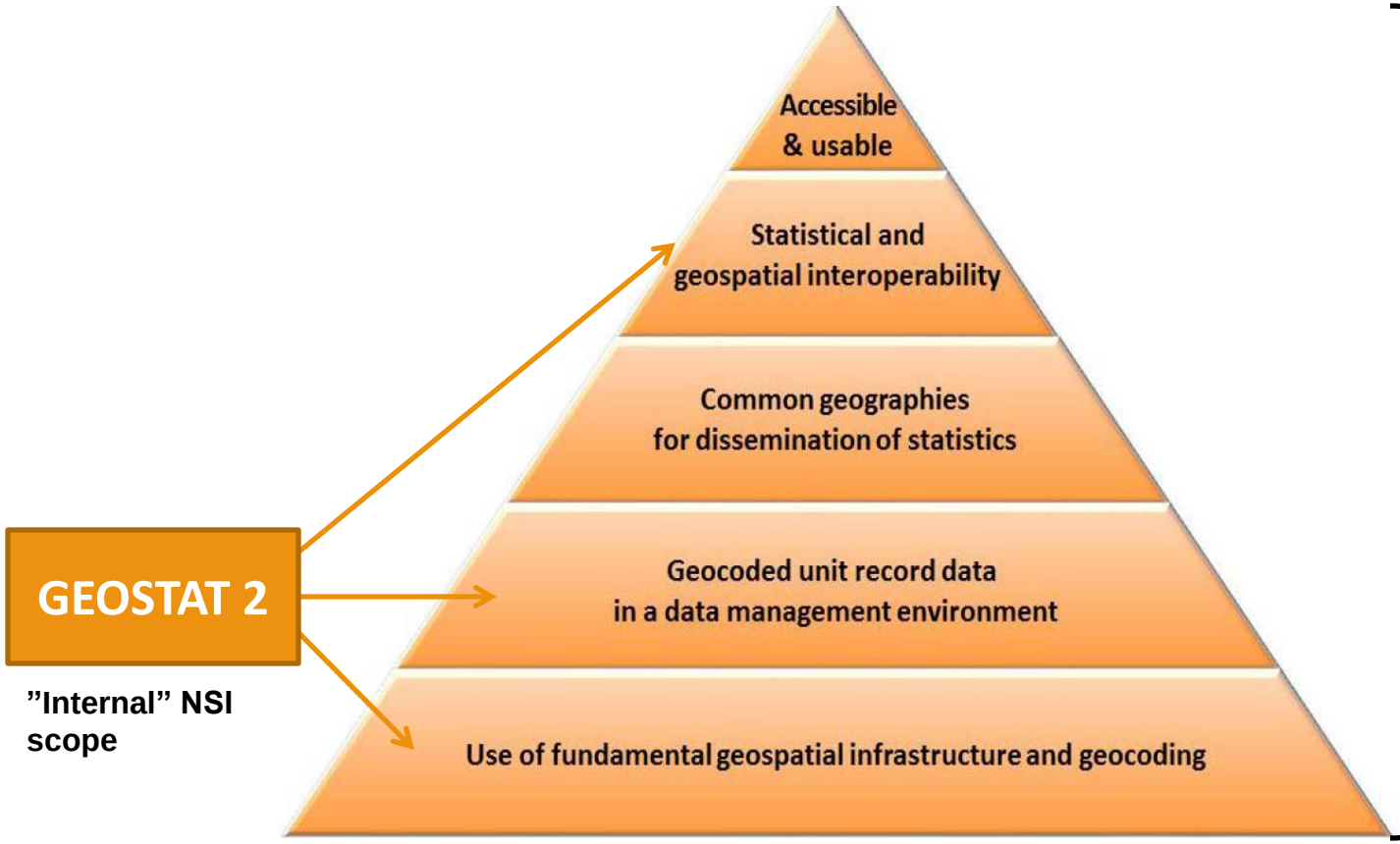
Provide recommendations on:

- Identifying users and their needs
- Recognising geospatial data sources
- Assessing geospatial data sources
- Assessing data processing capacity
- Building georeferenced survey frame
- Geospatial data maintenance
- Constrains on data dissemination
- Creation of geospatially referenced statistical products

GSBPM

- Goal to mainstream geospatial data management by means of the Generic Statistical Business Process Model (**GSBPM**)
- National excercises resulting in:
  - Proposed improvement of the GSBPM (UNECE)
  - Guidance as to how the GSBPM can be used to improve internal producton processes
- Rina Tammisto, Statistics Finland will talk more about this later!

What about the Global Statistical-Geospatial Framework?



Thank you!

On behalf of the GEOSTAT 2 project consortium:

- Marie Haldorson, Jerker Moström & Karin Hedeklint (Sweden)
- Erik Engelien/Ola Nordbeck (Norway)
- Rina Tammisto (Finland)
- Vincent Loonis (France)
- Ingrid Kaminger (Austria)
- Amelia Wardzińska-Sharif (Poland)
- Ana Santos (Portugal)

For more information and forthcoming results. Please visit:

www.efgs.info/geostat/geostat2/