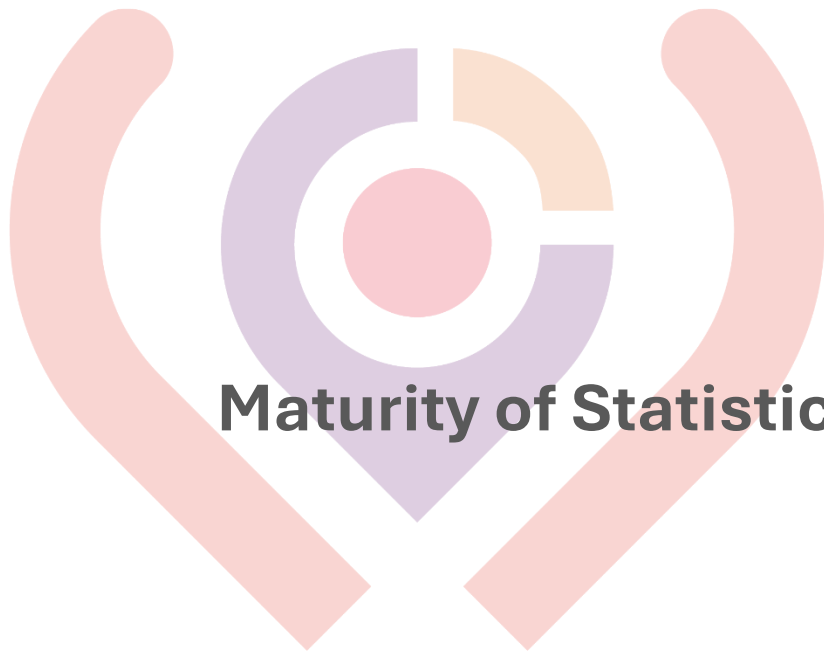




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Maturity of Statistical–Geospatial Integration: *Where Do You Stand?*

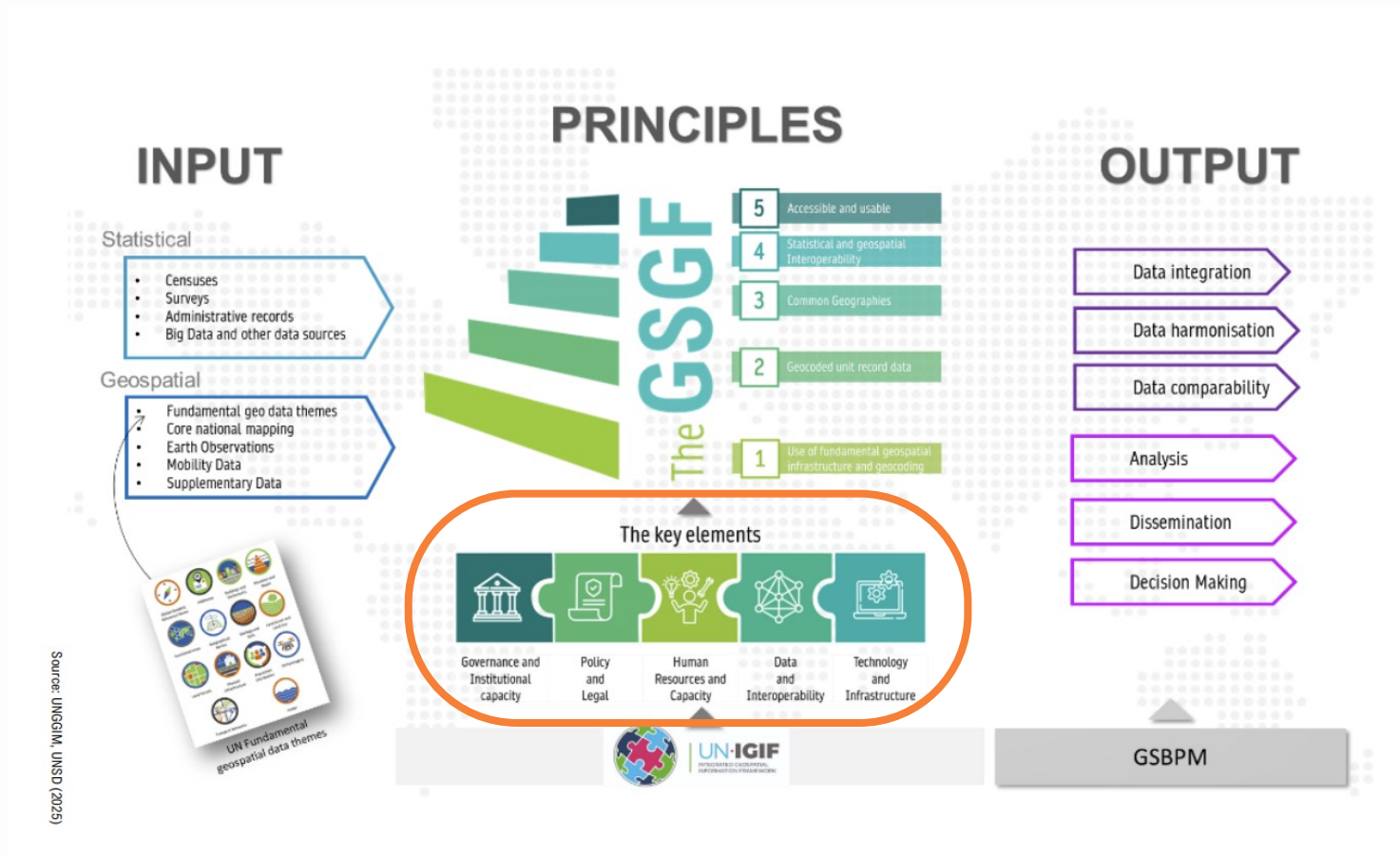
**Webinar (WebEx)
March 10 2026, 10:00-11:30 CET**

Background

- The **GSGF Self-assessment tool** was developed by the **UN Expert Group on the Integration of Geospatial and Statistical Information (EG ISGI)**;
- The main source of inspiration is the World Bank Baseline Assessment Diagnostic Template for the **Integrated Geospatial Information Framework (IGIF)**;
- The EG ISGI wanted a simplified and modified version of the tool targeting the maturity to implement the GSGF;
- Note that it is a **self-assessment** tool, not a questionnaire, not a contest, not a scientific method. The result is intended for your organization or country only!



Global Statistical Geospatial Framework (GSGF)



GSGF – Key Elements

The GSGF Key Elements



Governance & Institutional capacity

Policy & Legal

Human Resources & Capacity

Data & Interoperability

Technology & Infrastructure

Source: UNGGIM, UNSD (2025)

- The Key Elements = “**Enablers**” (or “**Disablers**”, if poorly developed)
- The level of success in **implementing the 5 Principles** of the GSGF relies on the Key Elements



The Key Elements are referred to as “**maturity dimensions**” in the tool

The tool

- A simple **MS Excel file** with tabs (one tab per dimension + additional descriptions)
- Each tab contains questions related to **one maturity dimension** (or key element)

Weighted score:
Score*weight

Question	Scoring guide	Notes	Score	Weight	Weighted score
Is there a working relationship between NSO(s) and NGIA(s) in your country?	<p>0 = None</p> <p>25 = NSO(s) and NGIA(s) are occasionally collaborating, mostly ad hoc based</p> <p>50 = A formal agreement is in place but collaboration is not yet up to a desired level</p> <p>75 = A working relation is operational, however collaboration does not go beyond what has been formally agreed</p> <p>100 = A close and trustful relation is established, collaboration covers both strategic and operational issues</p>			1	0

Scoring guide: general 'check-points' to support the scoring process, not the exact criteria.

Notes: Motivation for scoring. Can help facilitate the use of the result.

Weight: the relative importance of the questions. 2 signifies that the question is twice as important as a question with a weight of 1. Weighting is optional – default is value 1.

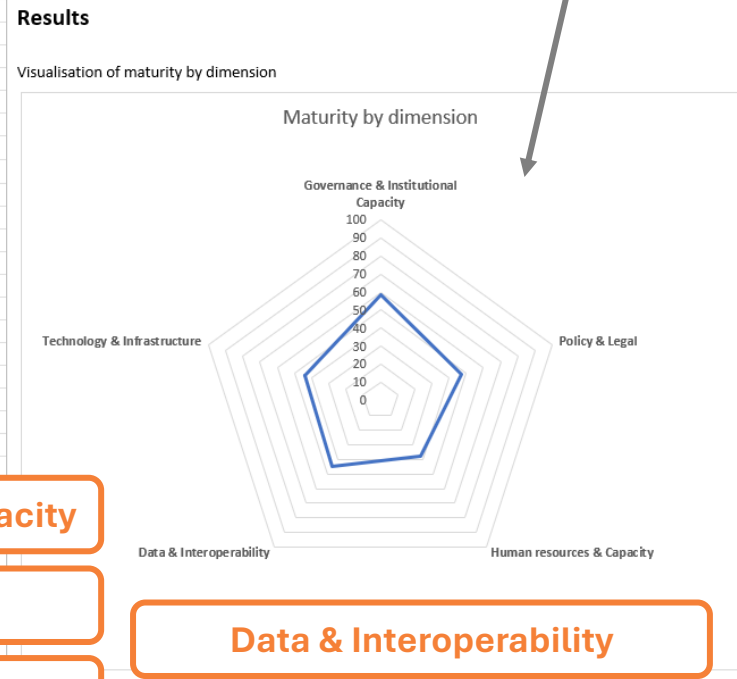
Score: Your assessment (0-100)

The tool Results

Radar chart type

Results	
Dimensions	Maturity by dimension
Governance & Institutional Capacity	58
Policy & Legal	47
Human resources & Capacity	38
Data & Interoperability	45
Technology & Infrastructure	44
Overall Score	47

WEIGHTED TOTAL SCORE		58
Number of Questions	6	
Total Weighting	6	
AVERAGE UNWEIGHTED	58	



Weighted total score is summarised for **each maturity dimension** and transferred to the last tab for summary results. It is also visualised in a graph (maturity profile)

Governance & Institutional Capacity

Policy & Legal

Human Resources & Capacity

Data & Interoperability

Technology & Infrastructure

The tool

Data Audit



Global Geodetic
Reference Frame



Addresses



Buildings and
Settlements



Elevation and
Depth



Functional Areas



Geographical
Names



Geology and
Soils



Land Cover and
Land Use



Land Parcels



Physical
Infrastructure



Population
Distribution



Orthoimagery



Transport Networks



Water








- The “**Data Audit**” tab is an independent part of the assessment.
- The basis for the audit is the **UN-GGIM Global Fundamental Geospatial Data Themes**.
- The audit is not necessary to complete the assessment, but it can facilitate input for the “Data & Interoperability” maturity dimension.
- Strongly recommended to do it, especially as a basis to discuss requirements on **quality and coverage of national geospatial data for statistical purposes**.

The tool

Data Audit



Part 1: Fundamental Geospatial Data Themes with high priority for data integration

Icon	Data Theme	Brief Description
	Addresses	An Address is a structured label, usually containing a property number, a street name and a locality name. It's used to identify a plot of land, a building or part of a building, or some other construction, together with coordinates indicating their geographic position. Addresses are often used as a proxy for other data themes such as Land Parcels.
	Functional Area	Functional Areas are the geographical extent of administrative, legislative, regulatory, electoral, statistical, governance, service delivery and activity management areas.
	Buildings and Settlements	A Building refers to any roofed structure permanently constructed or erected on its site, for the protection of humans, animals, things, or the production of economic goods. Settlements are collections of buildings and associated features where a community carries out socio-economic activities.
	Land Parcels	Land Parcels are areas of land or more generally of the Earth's surface (land and/or water) under common rights (such as ownership or easements), claims (such as minerals or indigenous land) or use. This theme can include individual fields and cadastral parcels.
	Transport Networks	Transport Networks are the suite of road, rail, air, cable and water transport routes and their connectivity.
	Population Distribution	The Population Distribution theme covers the geographical distribution of people, including population characteristics.
	Land Cover and Land Use	Land Cover represent the physical and biological cover of the Earth's surface. Land Use is the current and future planned management, and modification of the natural environment for different human purposes or economic activities.

- Responsible organisation
- Application in Statistics
- Primary Users
- Coverage, per cent of the country
- Latest Version
- Revision Cycle
- Does the annual budget adequately support updating?
- Description of Quality
- Geospatial Standard(s) used and are these interoperable with systems and services
- Access Methods (e.g. API, website download, CD-ROM)
- Similar/duplicate dataset managed and updated by another agency
- Linkage to other datasets (required/existing)



How to organise the exercise?

- A **first step** can be to use it for your own organisation;
- As a **second step**, you can extend the exercise to include both NSIs and NMCAs (or other relevant organisations);
- A **combined assessment** is more impactful;
- To score all dimensions, you may need to conduct the exercise as a **group** (geospatial experts, data architects, legal experts, etc.);
- There is **no “objective” truth**, you will probably score different depending on the role and background you have;
- Finding **common ground in the scoring** is part of the process;
- If you cannot agree, make notes on the different standpoints;
- Remember that the tool does not solve any problems, **it helps you to identify them!**

Where to find the GSGF Self-assessment tool?

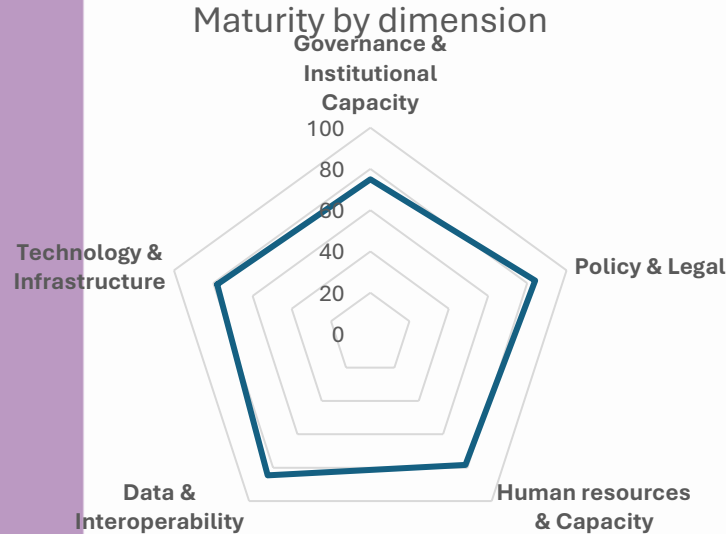
[Resource Page to Support of the Integration of Statistical and Geospatial Information - United Nations Expert Group on the Integration of Statistical and Geospatial Information - UN Statistics Wiki](#)

OR from the

[GSGF-CARE project website](#)



National experiences

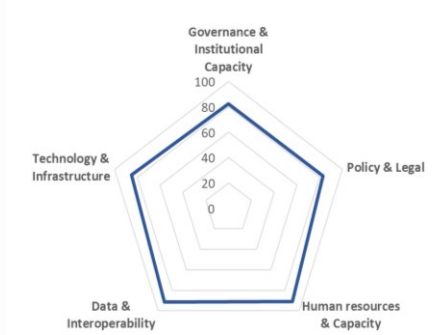


- How we did it
- Brief comment on the overall situation
- What was easy/difficult?
- Thoughts triggered by the exercise?
- Main takeaways and highlights?
- Recommendations for countries thinking about doing the exercise?

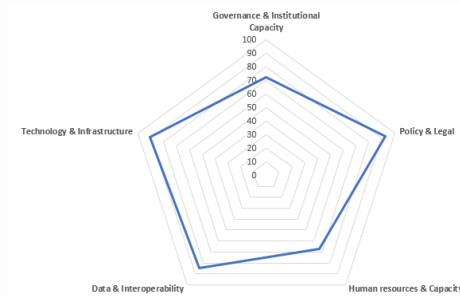
Country	Who participated	Overall situation	What was difficult	Thoughts triggered	Takeaways	Recommend.
Austria	NSI	Happy, but always room for improvement	NSI situation versus knowledge about whole country	Grateful to have the register-based system and legal basis for their statistical use	Bilateral cooperations help while legal situation may not be fully in place	Data Audit helpful. Criteria for scores in score box are helpful, make notes why you scored as you did
Finland	NSI & NMCA & ENVI FI	The bottleneck is the lack of a mandate for ecosystem-wide collaboration	Assessing against the target state as it is rapidly changing due to global situation	Strong legal basis but it must be complemented to address the remaining gaps	Ecosystemic ways of working require special attention	Use the tool flexibly – the context is yours
Norway	NSI & NMCA	Overall pretty good, but room for improvement	Different institutional perspectives affect the scoring. Questions understood differently	Different perspectives, but equally valid	Useful for identifying practical points for improvement	Combined approach most useful, multiple perspectives, view as national undertaking
Portugal	NSI	Legal and policy issues are a big gap	To accurately score based on the scoring ranges	Data is ok, but interoperability overlooked	Helpful to identify focus points for improvement	Filling in with the NMCA is key (data and institutional)
Spain	NSI	Technology & Infrastructure could be improved	Different viewpoints due to subjectivity in the scoring	Data repositories need clear responsibilities	Useful tool to identify issues	Multiple perspectives improve scoring accuracy
Sweden	NSI	Overall ok but many small/medium yet concerning glitches	Rating Philosophy (how to define you own targets?)	Comparing data quality with neighbours	Useful, sobering insights. Most useful if iterated over time	Decide on the approach for rating before starting the exercise

Visualisation of maturity by dimension

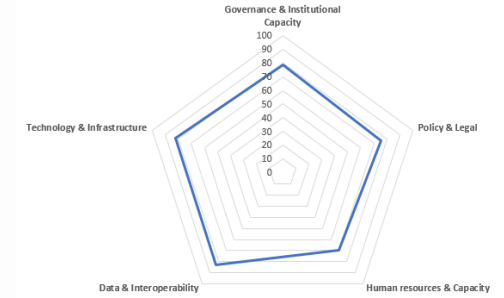
Austria



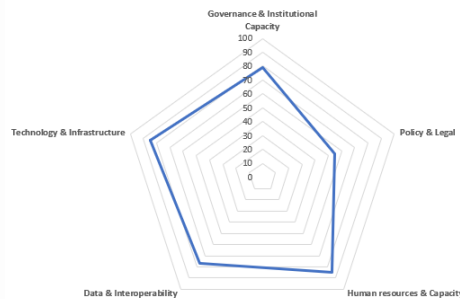
Finland



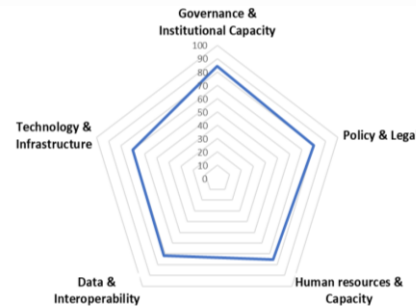
Norway



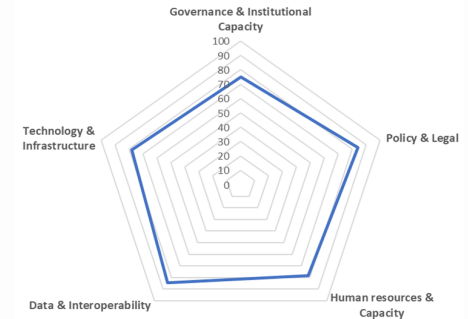
Portugal

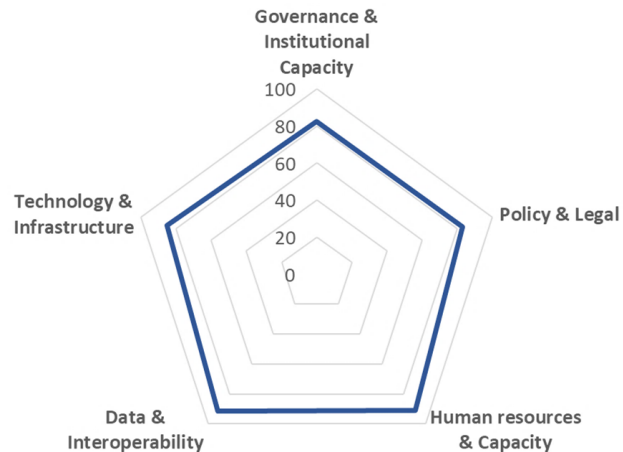


Spain



Sweden





Governance & Institutional Capacity	83
Policy & Legal	83
Human resources & Capacity	91
Data & Interoperability	91
Technology & Infrastructure	85
Overall Score	87

How we did it: NSI, Team exercise by part of the Geoinfo Team

Overall situation: Happy with the situation, always room for improvement.

Easy versus difficult: Our situation vs. knowledge about the whole country.

Further thoughts: Happy to have most things in place, register-based data ecosystem with unique IDs and access for statistical purposes.

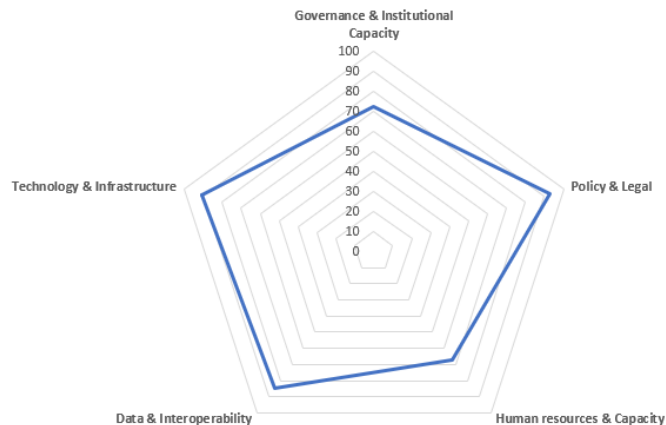
Main takeaways and highlights: (+) Human resources & Capacity, and Data & interoperability.

(+/-) Clear roles, bilateral cooperations and European legal acts, but **Governance** sometimes works without legal arrangements. (-) **PSI/HVD and INSPIRE** are drivers behind NSDI, limited to data themes only.

Recommendations: Data Audit Tab, did not do it yet, but it would be useful when repeating the exercise with other data holders.



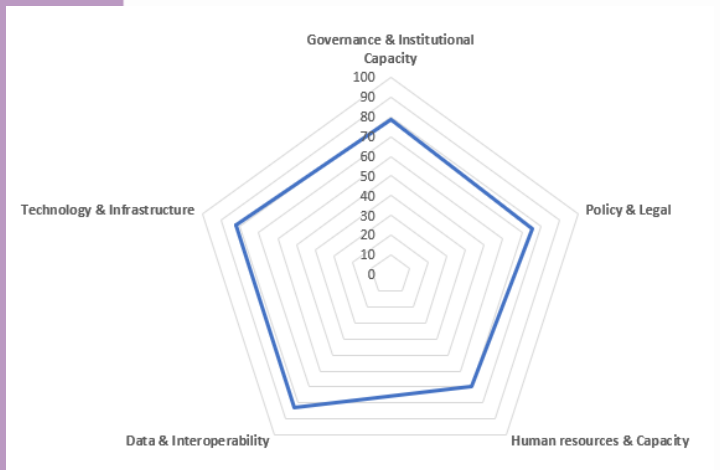
Finland



Governance & Institutional Capacity	73
Policy & Legal	93
Human resources & Capacity	67
Data & Interoperability	85
Technology & Infrastructure	91
Overall Score	82

- Statistics Finland, National Land Survey of Finland and the Finnish Environment Institute
- **Result**
 - **Strengths:** Data & Interoperability, Technology & Infrastructure, Policy & Legal
 - **Gap areas:** Human Resources and Governance — current capacity and mandate are insufficient.
- The results confirmed our overall understanding of the current state, but clarified more precisely what is missing
- The analysis highlighted how the changing security environment is reshaping our target state
- Views from all three organisations were consolidated; differing perspectives were documented in the notes
- **Main takeaways:**
 - If we want to operate as an ecosystem, we need a clear mandate and sufficient funding
 - The target state is undergoing a major transformation
 - The group generated a substantial number of ideas to support this analysis
- **Recommendation:** The tool supports cross-country comparison, but its real strength is in clarifying your own context. Use it flexibly and adapt it where needed.

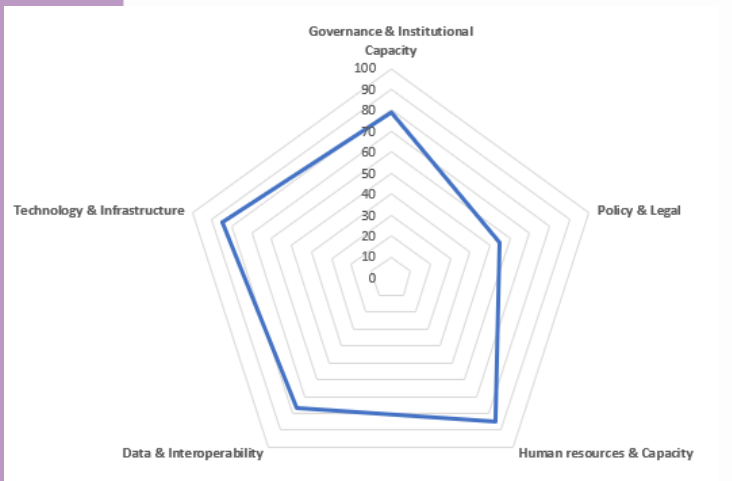




Governance & Institutional Capacity	78
Policy & Legal	75
Human resources & Capacity	70
Data & Interoperability	83
Technology & Infrastructure	83
Overall Score	

- **How we did it:** initially only by NSI, then combined NSI & NMCA.
- **Overall situation:** Pretty good, score between 70 and 83 on all main dimensions, but as low as 30 on some questions.
- **What was easy/difficult?** Can be difficult to interpret the questions the same way. We saw this when scoring together with our NMCA. However... this also builds perspective!
- **Main takeaways and highlights:** It is a practical tool for countries, not abstract! > a guide on capacities and collaborations that nationally NEED to be built to further national Geostatistical integration.
- NMCA have had a similar IGIF-assessment, with greater focus on country comparison, instead of self-assessment. Different use/perspectives can affect results.
- Not always a goal to have top-score on all questions
- **Recommendations:** Combined approach most useful, identifying geostatistical integration as a national undertaking.
- Agree on follow-up, how/when > Action points for collaborations and institutions.

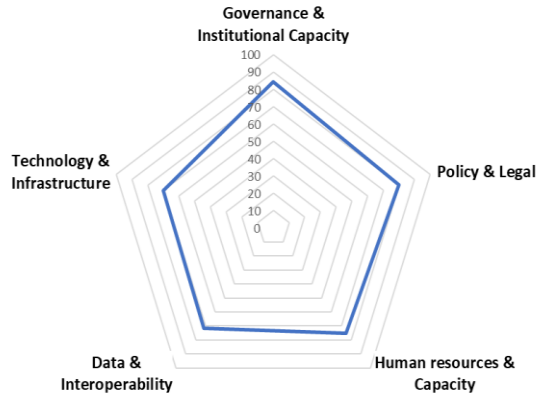
Portugal



Governance & Institutional Capacity	79
Policy & Legal	55
Human resources & Capacity	85
Data & Interoperability	77
Technology & Infrastructure	85
Overall Score	77

- Who: **Statistics Portugal** (Geoinformation Unit).
- The **overall situation** seems to be better than was initially expected, although the **data dimension** may be overscored (it needed inputs from the NMCA).
- Filling in the **technology and human resources** was **easy**. **Data** and **policy/legal** were more **difficult** since these dimensions involve the wider national and cross-domain context.
- It triggered the need to conduct this exercise with the **NMCA** to get an agreed view on where we stand.
- Data maturity is well-covered, but **all-dimensional interoperability issues** seem to be overlooked.
- It provides a **comprehensive glimpse of the state of play**, when maturity issues are usually identified separately and in a non-comparable way.
- **Recommendation:** filling in with the NMCA is a PLUS! > We didn't feel fully confident in answering some questions, and the perception of maturity may differ.

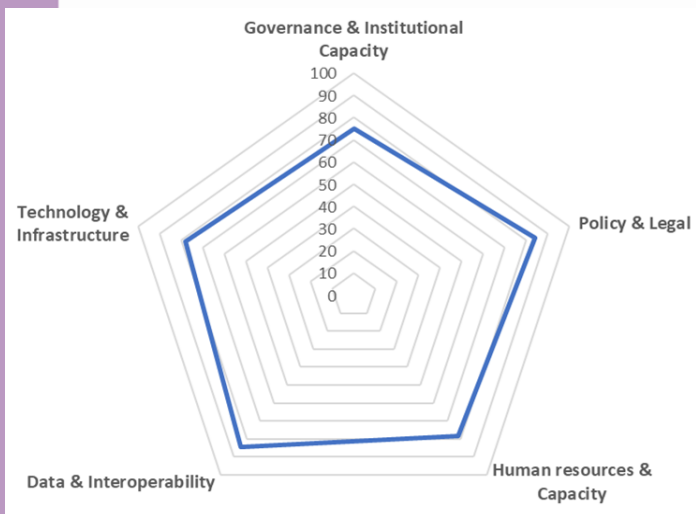




Governance & Institutional Capacity	84
Policy & Legal	80
Human resources & Capacity	75
Data & Interoperability	72
Technology & Infrastructure	70
Overall Score	77

- **How we did it:** Statistics Spain + requested input from the NMCA on Data & Interoperability.
- **Overall positive** across most dimensions, with some areas for improvement remaining.
- Questions related to **data interoperability and national geospatial infrastructure** were more difficult, as they involve actors beyond the NSO.
- The exercise highlights that data maturity is relatively advanced, especially due to the extensive **use of administrative sources and georeferencing** in statistical production.
- **Added value of the tool:** Provides a comprehensive and comparable overview of maturity across multiple dimensions. Helps identify areas where **inter-institutional collaboration** is needed to obtain a complete picture.
- Spain has established **institutional cooperation** between the National Statistical Office and the national mapping agency, as well as **data-sharing arrangements** with other administrative data custodians such as the Cadastre, supporting the production of official statistics.
- **Interoperability:** Public administrations provide interoperable geospatial services (WMS, WFS and APIs) enabling the integration of spatial data from multiple sources.





Governance & Institutional Capacity	75
Policy & Legal	84
Human resources & Capacity	78
Data & Interoperability	85
Technology & Infrastructure	78
Overall Score	80

- **Who:** Statistics Sweden (geospatial team within office + manager).
- **Overall ok situation**, but many small & medium "glitches" in all dimensions.
- Overestimation of Policy & legal.
- **Difficulties:** defining a consistent "rating philosophy". E.g. how to set our targets? Define our own desired state, or look at other countries? Do we ever reach 100%, etc.?
- **Triggered ideas** to compare data quality with our neighbouring countries (which we did).
- **Takeaways:** Useful to make it a recurrent exercise to keep reminding oneself of progress. Results should be passed on to "actionable" plans.
- **Recommendations:** Decide on the approach for rating before starting the exercise, it will help!



Q&A

Questions?

Thoughts?



Suggestions?

Remarks?

Ideas?