

The integration of statistics and geospatial information in Europe – can the EFGS make the loose ends meet?

Ekkehard Petri
GISCO - Eurostat

"the past is the key to the present"







NATIONS
UNIES

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COMMISSION DE STATISTIQUE et
COMMISSION ÉCONOMIQUE POUR L'EUROPE

CONFÉRENCE DES STATISTICIENS EUROPÉENS

Cinquantième réunion plénière
(Paris, 10-12 juin 2002)

**RAPPORT DE LA RÉUNION DE TRAVAIL COMMUNE CEE/EUROSTAT
DE SEPTEMBRE 2001 SUR LES QUESTIONS MÉTHODOLOGIQUES
TOUCHANT L'INTÉGRATION DES STATISTIQUES
ET DE LA GÉOGRAPHIE**

Mandate for a joint NSI/NMA working group
on geographical information system for statistics

Within the European Statistical System, the objectives of the GISCO projects are:

promote geo-referencing of statistics and encourage the integration of GIS in the national statistical organisations;

promote collaboration between NSI and national mapping agencies (NMA);

promote harmonisation and co-ordination of the GI management systems used in the statistical organisations;

ensure standardisation and harmonisation in the geographical information exchange process between Member States and Eurostat;

co-ordinate the participation of European statisticians in GI and GIS activities, promote their know-how in standardisation processes and ensure that their needs are taken into account in market developments.

As far as international co-operation is concerned, the project aims also:

to promote co-operation between NMA at European level;

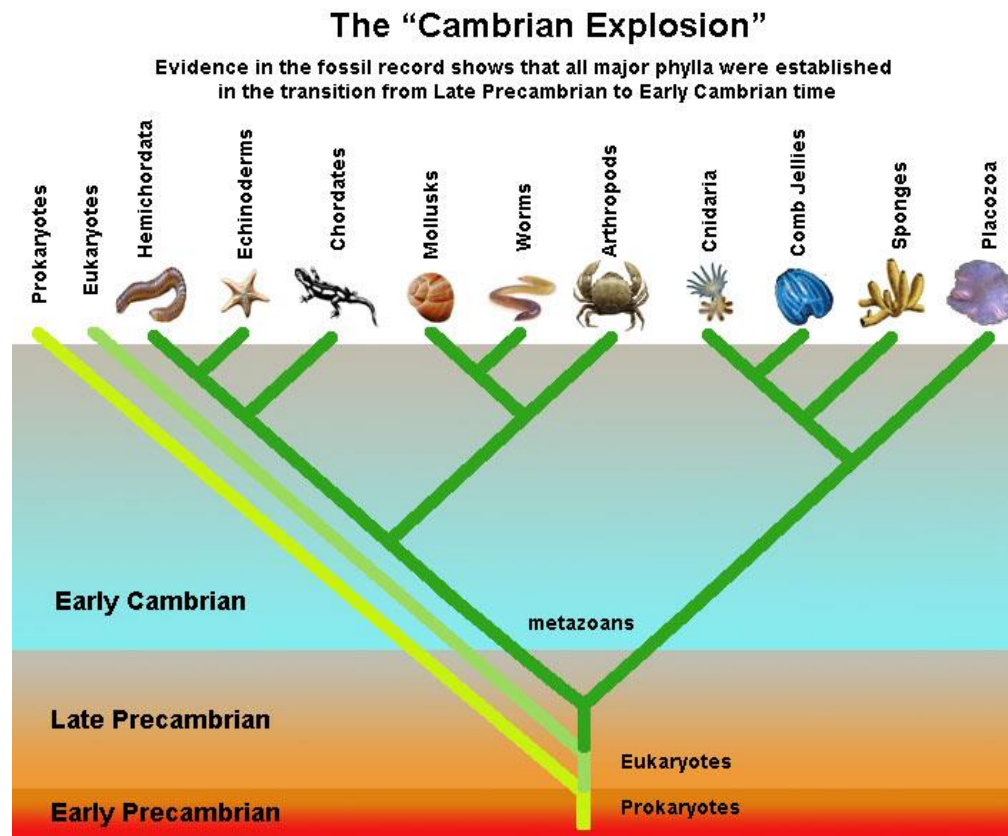
to pursue the harmonisation of EU and broader international initiatives in GI;

to participate in GIS - related projects in other statistical international organisations.

Achieving these objectives would require close co-operation between NSI, NMA and Eurostat. The joint working party on "Geographical information systems for statistics", comprising NSI, NMA and Eurostat representatives is one of the ways of conducting this co-operation.

NMA and Eurostat representatives is one of the ways of conducting this co-operation.

The Cambrian explosion of GGIM



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Drivers for the current (r)evolution

European Statistical System

UN-GGIM

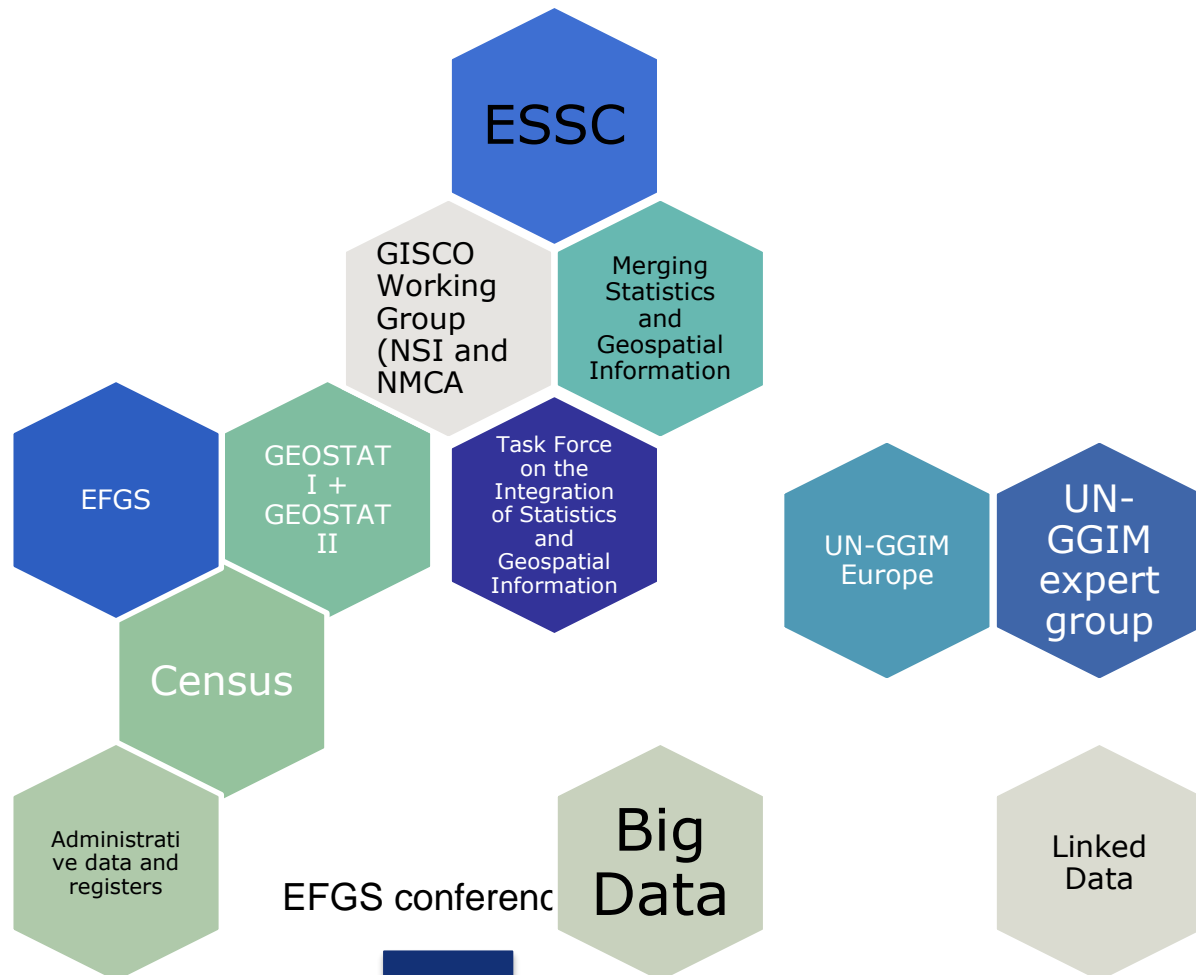
Open Data

INSPIRE and other Spatial Data Infrastructures

Technology

*New architecture for statistics and geospatial
information in Europe*

I European Statistical System



23 - 25 October 2013

EFGS conference

II UN-GGIM

UN-GGIM – What is it?

- The United Nations Initiative on Global Geospatial Information Management (UN-GGIM), an initiative to enhance and coordinate global geospatial information management
- Provides a formal mechanism under the UN to discuss and coordinate GGIM activities by **involving Member States** at the highest Government level as the key participants





“Just like statistics, every country must have authoritative, trusted, maintained, definitive mapping data”

*Professor Paul Cheung, Director,
United Nations Statistics and Geospatial
Information Division,
Geospatial World Forum, Amsterdam, May 2012*



UN-GGIM Committee of Experts



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EFGS conference 2013 Sofia

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UN-GGIM Inventory of issues

United Nations

E/C.20/2012/5/Add.1



Economic and Social Council

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2 July 2012

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**Committee of Experts on Global Geospatial
Information Management**

Second session

New York, 13-15 August 2012

Item 5 of the provisional agenda*

Inventory of issues to be addressed by the Committee

(i) Linking geospatial information to statistics.

**Inventory of issues to be addressed by the Committee of
Experts on Global Geospatial Information Management**

Report of the Secretary-General

Summary

The present paper contains the report that sets out the activities of a working group tasked with developing an inventory of issues for the Committee's consideration at its second session.¹ At its first session, the Committee of Experts considered that a detailed and comprehensive description of the issues that should be addressed in the coming years was indispensable to define the scope of the Committee's work and role in the future. The report summarizes the process by which the working group was formed and the mechanism of deliberation. Drawing upon detailed submissions and broad global geospatial consultation, the report describes the inventory of issues that have been collated and consolidated within the following nine thematic groups:

- (a) Developing a national, regional and global strategic framework for geospatial information;
- (b) Establishing institutional arrangements and legal and common frameworks;
- (c) Building capability and capacity, especially in developing countries;
- (d) Assuring the quality of geospatial information;
- (e) Promoting data sharing, accessibility and dissemination;
- (f) Embracing trends in information technology;
- (g) Promoting geospatial advocacy and awareness;
- (h) Working in partnership with civil society and the private sector;
- (i) Linking geospatial information to statistics.

conference 2013 Sofia

- (d) Supported holding an international conference on the topic and urged the Expert Group to look into issues such as institutional arrangements and standards that would facilitate better data integration and, in particular, the unique opportunity in time offered by the preparations of the forthcoming 2020 Round of Censuses.
- (e) Recognised the role of so-called “linked data” as an effective methodology for dynamically linking datasets and recommends the potential of this technology be considered by the Expert Group.
- (f) Encouraged national geospatial information authorities to reach out to their national statistical office counterparts to actively engage in a dialogue on better integration of statistical and geospatial information at the national level.

Demand for linking statistics to a location

Demand from politics

- **Sustainable development (EU2020, Rio20+), territorial cohesion and regional development**

Demand from statistics

- **more efficiency in statistical production, facing competition from private data providers, adding the 'where' to the 'what' and 'when' will help us to understand the 'why'**

UN-GGIM Europe

*Regional committees explicitly encouraged by
ECOSOC*

European Committee



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UN-GGIM Europe focus points

2) Provide an overview of National Location strategies and overall data policy frameworks (e.g. EU Public Sector Information and Open Data initiative) adopted or under development in European countries and at the EU level

3) Integrate the statistical component into the geospatial framework

4) Provide material and examples of legal and technical institutional arrangements (National data sharing frameworks, INSPIRE, SEIS)

5) Impact analysis of the implementation of INSPIRE, e.g. on the use of geospatial information by administrations and citizens

13) Agreements on the implementation of open core global reference datasets free of charge at the point of use

17) Protocols and policies for exchange of geospatial and statistical data

20) Integrate the European Statistical System in the vision for a coordinated geospatial information management at the European level

UN-GGIM Expert Group on the integration of statistics and geospatial information

*Report of the Australian Bureau of Statistics on developing
a statistical-geospatial framework*

<http://unstats.un.org/unsd/statcom/doc13/2013-2-ProgReview-E.pdf>

*UNECE census recommendations 2020 round of censuses
(1km² as recommendation).*

Policy paper

G8 Open Data Charter and Technical Annex

Published 18 June 2013

Contents

1. Principle 1: Open Data by Default
2. Principle 2: Quality and Quantity
3. Principle 3: Usable by All
4. Principle 4: Releasing Data for Improved Governance
5. Principle 5: Releasing Data for Innovation
6. Technical annex

III Open Data

G8 initiative

Free and open access to government data

Explicit reference to geospatial information and statistics (including census information) as areas for open data

Open Data portals

<https://www.gov.uk/government/publications/open-data-charter/g8-open-data-charter-and-technical-annex>

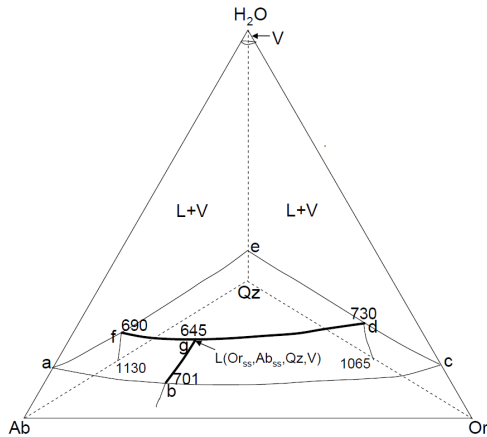
IV EFGS

*Community of users and producers of information
Brings together practitioners from different
disciplines, not just statisticians*

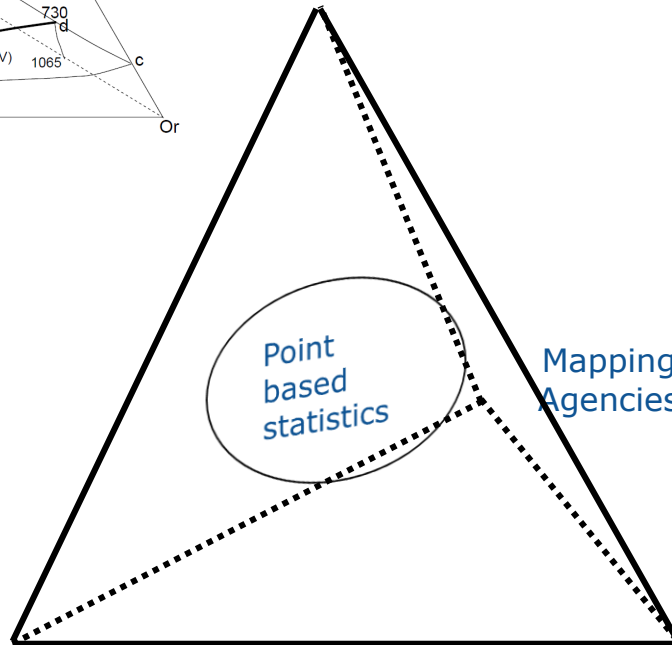
Training, best practices, the GEOSTAT projects

A network of experts

*Most important driving force for the integration of
statistics and geospatial information within the
ESS*



ESS



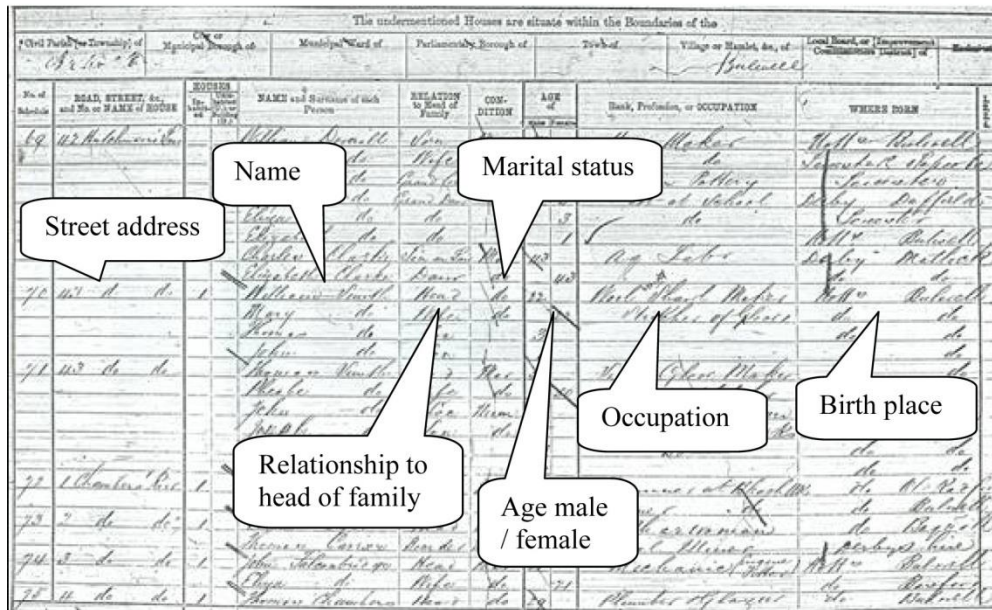
EFGS as a catalyst?

UN-GGIM

Open Data

Our integration project: 2020 Population and housing census based on point based administrative data

1871 Census of Bulwell, Nottinghamshire
British film #839,740, RG 10/3490 folio 11



The undermentioned Houses are situate within the Boundaries of the									
No. of Schedule	ROAD, STREET, &c., and No. or NAME of HOUSE	NAME and Surname of each Person	RELATION to Head of Family	CON- DITION	AGE at 1871	Rank, Profession, or OCCUPATION	WHERE BORN	REMARKS	EDUCATION
69	42 North-street	William Russell	Head	Married	35	Labourer	Bulwell, Nottingham		
		Mary Russell	Wife	Married	32	Labourer	Bulwell, Nottingham		
		Elizabeth Russell	Daughter	Single	10	at school	Bulwell, Nottingham		
		John Russell	Son	Single	5	at school	Bulwell, Nottingham		
		Charles Russell	Son	Single	1	at school	Bulwell, Nottingham		
70	43 " "	William Russell	Head	Married	32	Labourer	Bulwell, Nottingham		
		Mary Russell	Wife	Married	29	Labourer	Bulwell, Nottingham		
		John Russell	Son	Single	10	at school	Bulwell, Nottingham		
		Elizabeth Russell	Daughter	Single	5	at school	Bulwell, Nottingham		
71	44 " "	John Russell	Head	Married	30	Labourer	Bulwell, Nottingham		
		Mary Russell	Wife	Married	27	Labourer	Bulwell, Nottingham		
		John Russell	Son	Single	10	at school	Bulwell, Nottingham		
		Elizabeth Russell	Daughter	Single	5	at school	Bulwell, Nottingham		
72	45 " "	John Russell	Head	Married	28	Labourer	Bulwell, Nottingham		
		Mary Russell	Wife	Married	25	Labourer	Bulwell, Nottingham		
		John Russell	Son	Single	10	at school	Bulwell, Nottingham		
		Elizabeth Russell	Daughter	Single	5	at school	Bulwell, Nottingham		