IPS 776
Web Data for Official Statistics – Methodology, Quality, Production and Community

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The Hague

Web Intelligence Network

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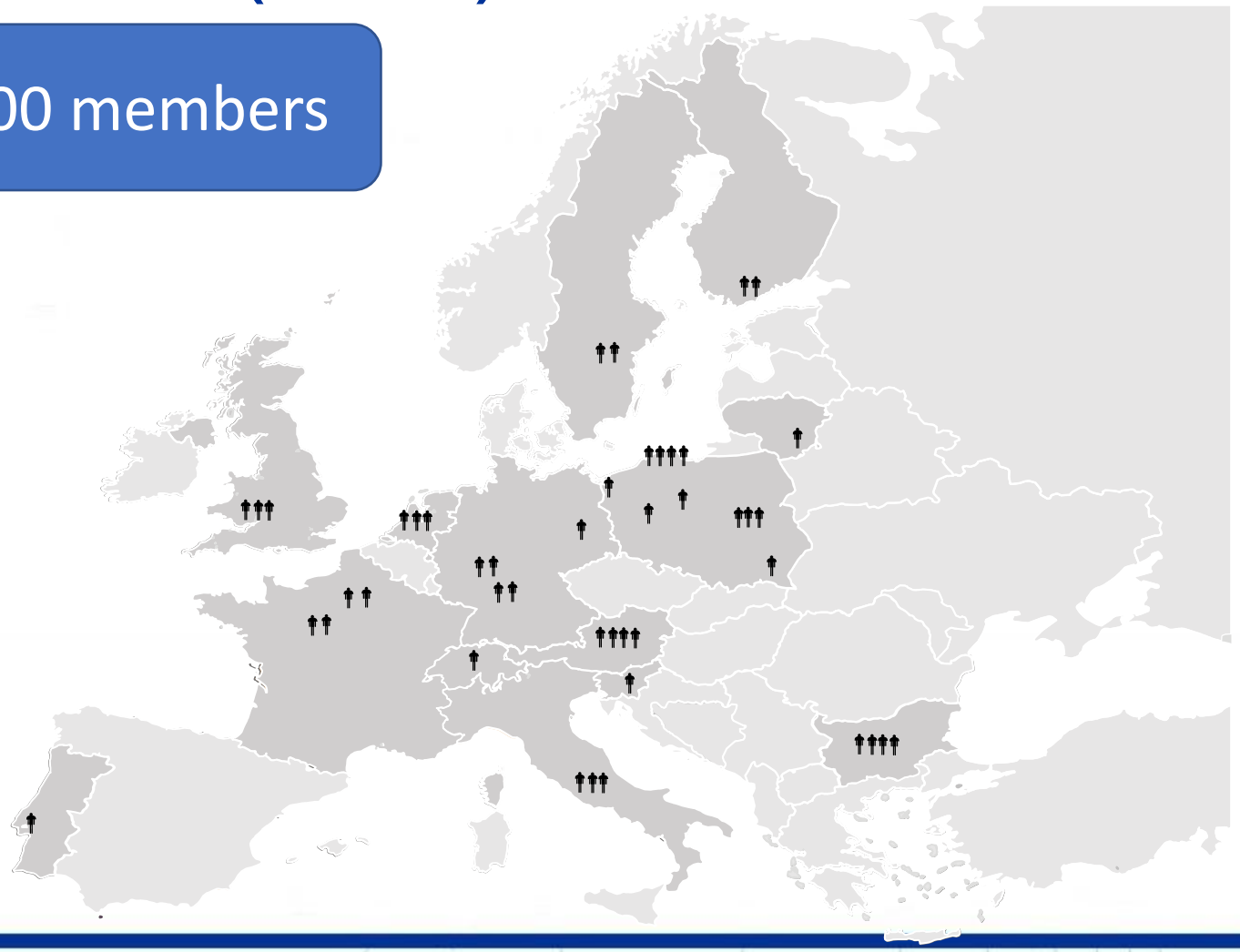
Web Intelligence Network (WIN)

14 countries, 17 organizations, ~100 members

Contribute to the development of the Web Intelligence Hub

Reach out to **all ESS countries**

Use web data, use the WIH



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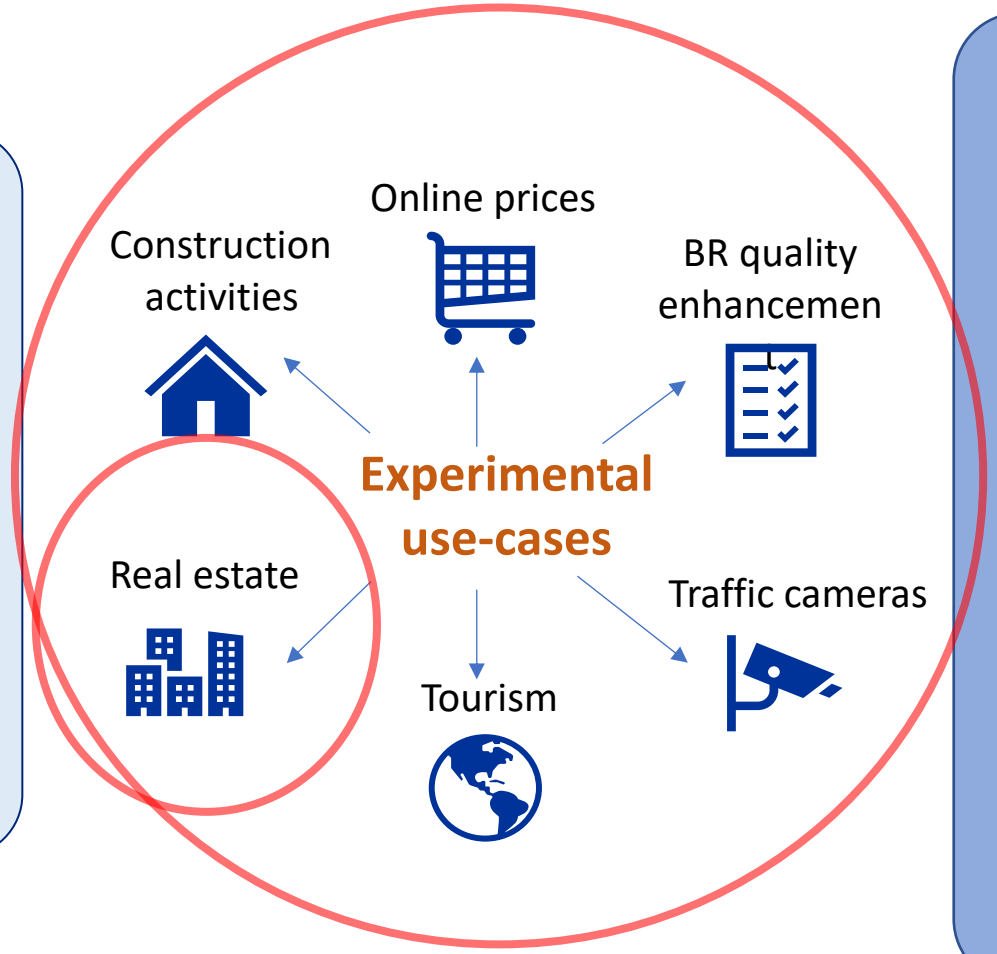
Topics WIN was looking at

Methodology
Quality
Architecture

Most mature use-cases

Online job advertisements
OJA

Enterprise characteristics
OBEC



Building community of WIH contributors & users

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Results for OJA and OBEC

- *Technical guidelines on the implementation of the software produced* - deliverable shows all necessary information to move OBEC and OJA usecases into the production using the WIH environment – it is a guide for accessing the system, reading the data, with examples of possible use
- *Suggested set of new metadata for the use by Eurostat with suggested set of tables to publish at Eurostat's website* - contains templates of tables and metadata, with data calculated by the use of the WIH platform and DataLab

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Reports available from experimental work

- Real estate data - Experimental statistics for characteristics of the real estate market
- Report on methods and feasibility to track construction activities based on real estate web portals
- Reports on methodology and results for online prices

- Report on methods for analysing hotel price data and computing various indices of interest
- Report on methods to be used for imputation of price data in price statistics (travel-related expenditures)
- Reports on methodology and results to use online data for business register enhancement
- Faster Economic Indicators using new data sources - Reports on assessment of challenges and opportunities.

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Cross-cutting work – deliverables

- Quality
  - *Quality Guidelines for acquiring and using web scraped data* – framework for identifying and selecting data sources for the web scraping process and guidelines on evaluating existing data set in terms of stability
  - *Quality Assessment for the statistical use of webscraped data* – assessing the quality of data classification
- Methodology
  - *Methodology report on using web scraped data* – sampling, web scraping process and causes of bias, methods specific for web scraped data
  - *Minimal guidelines and recommendations for implementation* – guidelines for integrating webscraped data into official statistics
- Architecture
  - *BREAL - Big Data REference Architecture and Layers for web scraped data* - “Extension and Enhancement (E&E)” of the BREAL framework

Presentations of today

- *Magdalena Six - Measuring the quality of official statistics based on web data*
- *Olav ten Bosch - Official statistics using web data: new use cases*
- *Klaudia Peszat - Real-estate statistics from web data*

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Presentations

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Discussion

- How can we best address the methodological challenges arising from poor data quality in new data sources?
- To what extent is a purely web-based approach sufficient, and when does integration with established sources such as surveys or administrative data become indispensable?
- Should future projects prioritize solving concrete problems (e.g., developing fast labour market indicators) rather than focusing on specific data sources?
- How can multi-source data approaches – such as combining MNO data with registers or linking web data with tourism statistics – enhance accuracy and comprehensiveness?
- What are the opportunities and risks of applying Large Language Models (LLMs) for URL discovery, particularly in identifying and categorizing relevant web data sources?

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Lessons learned & conclusions

Immense knowledge-exchange, learning and added value from working together

New data sources vs. official statistics quality standards

Transparency & control of the production process

Role of domain experts

Top-down vs. bottom-up approach

National agenda and country specificities

Governance set-up

Legal constraints

Added value for the NSIs

WIH - highly innovative & extremely complex endeavor