The OECD Laboratory for Geospatial Analysis

WORLD URBAN FORUM
ELEVENTH SESSION
KATOWICE, POLAND | 26-30 JUNE 2022

WORKSHOP

29 June 2022 at 14h30 CET | Hybrid

Venue: World Urban Forum, Katowice (POL) and Zoom

OECD Laboratory for Geospatial Analysis' workshop at the World Urban Forum

Geospatial data for real-time city and local statistics and better policy

OECD

Geospatial data for real-time city and local statistics and better policy

■ Objectives

The purpose of this workshop is to exchange on innovative work to provide policy-relevant evidence in near real time using new and innovative geospatial data sources and methods. Experts will discuss the opportunities that these new forms of data offer as well as the challenges that may arise in terms of facilitating partnership with data providers, structuring solid and replicable methods, and enhancing international comparability.

- Summary of the meeting available here.

■ The presentations

Monitoring in near real time land-use in cities using satellite imagery

Over time, cities expand their physical footprint on land and new cities emerge. The shape of the built environment can affect several domains which are policy relevant, such as carbon emissions, housing affordability, infrastructure costs, and access to services. This study lays a methodological basis for the monitoring and consistent comparison of land use across OECD cities. An advanced form of deep learning, namely the U-Net model, is used to classify land cover and land use in EC-ESA satellite imagery for 2021. This complements conventional statistical data by monitoring large surfaces of land efficiently and in near real-time. In specific, following the availability of detailed data for model training, built-up areas in residential or business-related use are mapped and analysed for 687 European metropolitan areas, as a case application. Recent urban expansion's speed and shape are explored, as well as the potential for assessing land use in cities beyond Europe.

Paolo Veneri – Deputy Head of Division, OECD Centre for Entrepreneurship, SMEs, Regions and Cities – **DOWNLOAD PRESENTATION HERE**

Geospatial data analysis cases for policy development and monitoring in Korea

New forms of geospatial data offer the potential to enrich official statistics and provide high spatial and temporal granularity which is important in an increasingly mobile world. The Korean national research institute, (KRIHS, Korea Research Institute for human settlements) introduces their geospatial data analysis cases by combining public and private data such as credit card usage, mobile phone location, and income with existing public data. This will show how public-private data fusion can provide new lenses on urban geodemographic change and support policy-making process based on evidence.

Minjee Kim – Korea Research Institute for Human Settlements - **DOWNLOAD PRESENTATION HERE**

Motor-vehicle count and traffic-flow estimation from traffic-camera imagery

In this presentation, an overview is provided on a computer vision-based system that was developed at the Data Exploration and Integration Lab. (DEIL), Statistics Canada, to extract vehicle counts from Canadian traffic-camera imagery obtained periodically. A prototype system was developed to collect imagery from three traffic camera jurisdictions through use of their Application Programmable Interfaces (APIs). Different classes of vehicles can be detected from these images and count of these vehicles can be generated. We present some of the obtained results and analysis of the extracted data.

Ala'a Al-Habashna – Statistics Canada – **DOWNLOAD PRESENTATION HERE**

Geospatial data contributions to SDG 11 monitoring: advances and perspectives for near-real time urban monitoring

This presentation will highlight the different ways in which UN-Habitat is utilizing and supporting member states and cities to integrate geospatial data into the measurement of SDG 11 indicators on spatial growth of cities, and those on provision and access to public transport and open public spaces. It will showcase how these technologies are/can contribute to near-time monitoring of the changing urban landscape in countries; and highlight some ongoing initiatives aimed at utilizing crowd-sourced and volunteered data in the production and regular update of data on SDG 11.1.1 (assessing urban deprivations), and 11.2.1 and 11.7.1 (provision and access to public transport and open public spaces respectively).

Dennis Mwaniki – UN-Habitat - **DOWNLOAD PRESENTATION HERE**

Agenda

14.30-14.35		**Welcome and introduction**
	DESCRIPTION	Welcome, background and objectives of the workshop **Alessandro Alasia –** Deputy Director, Statistics Canada **Hyeona Lim –** Deputy Director, Ministry of Land, Infrastructure and Transport, Republic of Korea (MOLIT)
14.35-15.35		**Presentations**
	DESCRIPTION	Monitoring in near real time land-use in cities using satellite imagery **Paolo Veneri –** Deputy Head of Division, OECD Centre for Entrepreneurship, SMEs, Regions and Cities
	DESCRIPTION	Geospatial data analysis cases for policy development and monitoring in Korea **Minjee Kim –** Korea Research Institute for Human Settlements
	DESCRIPTION	Motor-vehicle count and traffic-flow estimation from traffic-camera imagery **Ala'a Al-Habashna –** Statistics Canada
	DESCRIPTION	Geospatial data contributions to SDG 11 monitoring: advances and perspectives for near-real time urban monitoring **Dennis Mwaniki –** UN-Habitat
15:35-15:55		**Discussion**
		Discussions will be open to all participants, with one planned intervention by MOLIT Deputy director Hyeona Lim
15:55-16:00		**Wrap-up / Close**
		Alessandro Alasia - Deputy Director, Statistics Canada


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About the OECD Laboratory for Geospatial Analysis

The OECD Laboratory for Geospatial Analysis (The Geospatial Lab) is an initiative to encourage the widespread adoption of geospatial data in shaping policies that make a difference in tackling today's place-based problems. It aims to create an international community of stakeholders from the public, private, and not-for-profit sectors, to share knowledge and co-operate in the production and use of geospatial data, all the while emphasising the policy implications of geospatial data use. The Lab is hosted by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE).

For more information, visit our website: https://www.oecd.org/regional/regional-statistics/geospatial-lab.htm

CONTACT

If you are interested to learn more about the project or to get involved, please contact geospatiallab@oecd.org