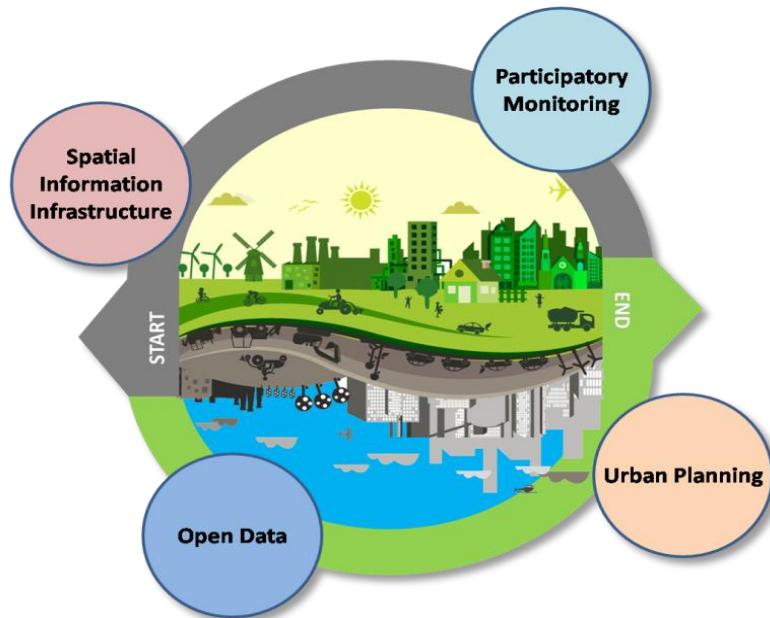


4D Open spatial information infrastructure supporting participatory urban planning monitoring

Keywords: Open Data, Open Participation, FAIR Guiding Principles, Urban Planning, Urban Monitoring, and 3D Spatial Information

OTB Department / GIS Technology

Area of Research: Spatial Information Infrastructure, Open Data and Urban Information



Research Summary: In today's world, which is becoming increasingly urban, monitoring and evaluating of urban planning is never been so important, not only for policymakers and decision makers, but also for private sectors and citizens. Many cities anticipating this challenge by embracing transparency, collaboration and open participation in their urban planning process. These efforts require improvements on its spatial information sharing by introducing openness and two-ways information flows to support participatory urban planning monitoring. The so called Open SII is believed capable to feed spatial information to the smart city by harnessing local spatial knowledge from private sectors and citizens. The research will examine the integration of open data principles, open participation and FAIR (findable, accessible, interoperable and re-usable) guiding data principle in construction of Open SII based on international standards and to develop a prototype incorporating an open and FAIR spatial data governance model, master spatial data management model, and technical requirements of Participatory Urban Planning Monitoring (PUPM).

Research Methodology: The approach of the study is quantitative and the qualitative results are secondary with the qualitative phase may be used to augment the statistical data.

RQ	Research Question	Methodology
1	What spatial information is necessary for creating urban plans?	Literature Reviews and Interviews
2	What are the potential stakeholders and requirements for open spatial data management to support participatory urban planning?	Literature Reviews and Interviews
3	How may Open SII and two-ways information flows support effective participatory urban planning monitoring?	Theoretical design and Practical Design
4	What is best design to enable participatory urban planning monitoring on Open SII?	Theoretical design, Practical Design, and Interviews
5	How Open SII and Participatory Urban Planning Monitoring may improve citizen contribution?	Development and User's assessment

Key Publication:

- Indrajit, A., Ploeger, H., van Loenen, B., & van Oosterom, P. (2018) Designing Open Spatial Information Infrastructure to Support 3D Urban Planning in Jakarta Smart City
- Indrajit, A., van Loenen, B., & van Oosterom, P. (2018) Prospect of Open SDI in Developing Countries: Case Study: Indonesia
- Indrajit, A., van Loenen, B., & van Oosterom, P. (2017) Multi-Domain Master Spatial Information Management for Open SDI in Indonesian Smart Cities



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Main Question:

How to design and implement an Open Spatial Information Infrastructure for 4D Participatory Urban Planning Monitoring?

Deliverables:

This research will focus on how to improve spatial information sharing to support participatory urban planning monitoring (PUPM) by implementing two-way communication between government and citizens. This research will cover the design of appropriate policy and technical frameworks resulting in a PUPM prototype utilizing spatial data.

Link:

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