

UNIVERSITY OF TWENTE.

DEPARTMENT OF  
URBAN AND REGIONAL PLANNING  
AND GEO-INFORMATION MANAGEMENT (PGM)

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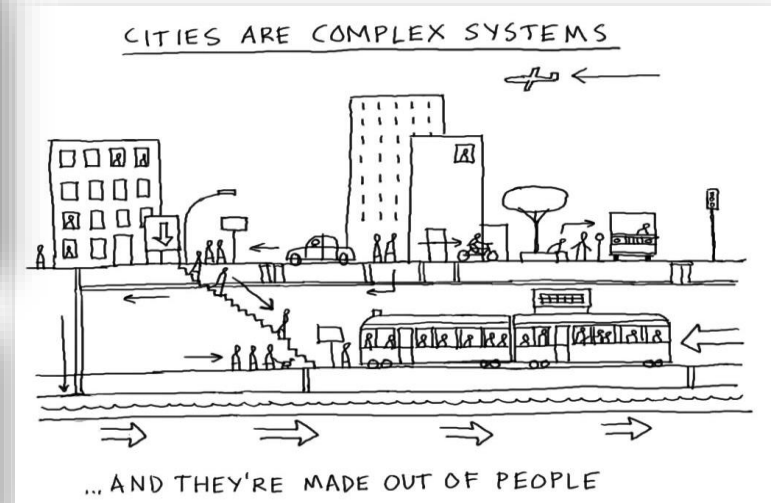
Mini Symposium on Sustainable Research Software  
Development for Geo-Information Science and Earth Observation  
17 November 2022



FACULTY OF GEO-INFORMATION SCIENCE AND EARTH OBSERVATION

# PGM RESEARCH THEME PLUS

- People
- Land
- Urban
- Systems



# OUR RESEARCH

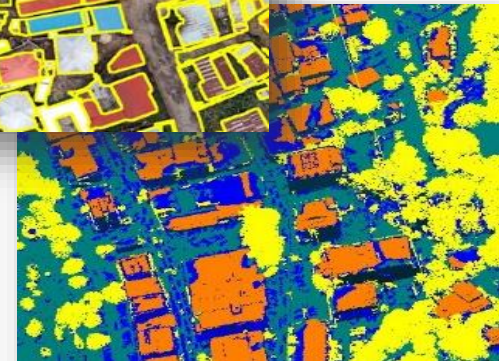
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- **Spatial and temporal dynamics** within complex **urban regions** and their **hinterland**;
  - Current situation, transformation processes, and future trajectories of land/urban systems
  - Interactions between people, land tenure and land uses, and urban systems, over time;
  - Human needs and behaviour
- **Participatory** and **inclusive** planning and decision-making
- **Socio-spatial equity; climate change and disaster impacts; sustainable development**;

# RESPONSIBLE LAND ADMINISTRATION AND LAND INFORMATION MODELLING

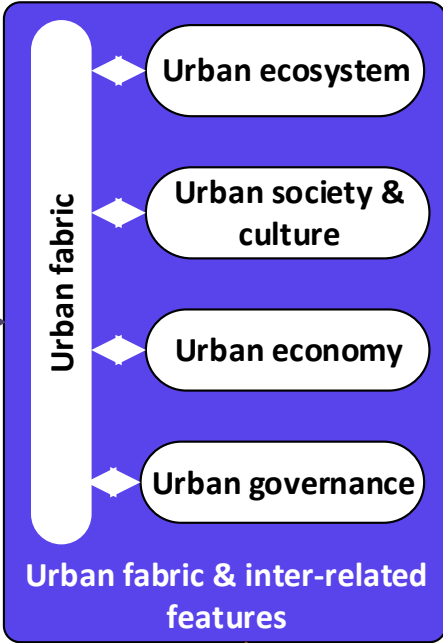
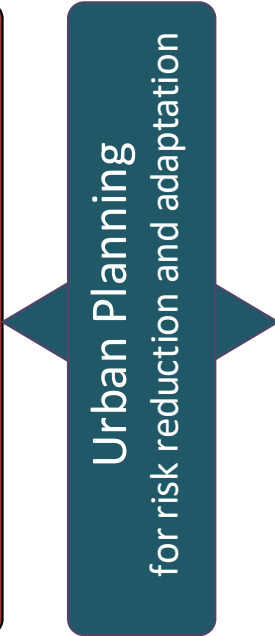
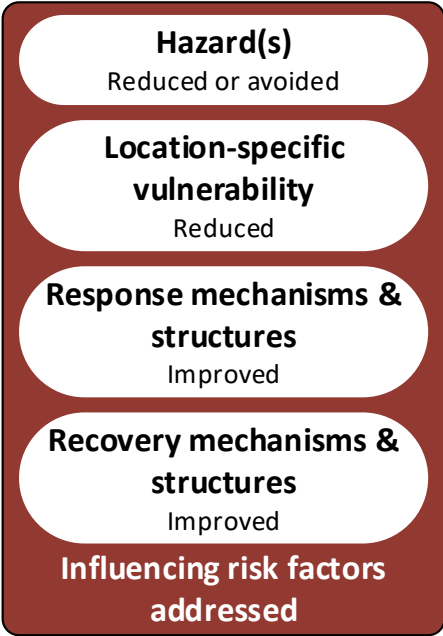
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- How to combine **geo-ICT** and **institutional** arrangements for land tenure
- **Automation** in feature extraction, tailored geo-ICT solutions, crowdsourcing, blockchain, ..)
- **Fit-For-Purpose** approach (time, money, quality)
- **Community participation and government acceptance**
- **Impact**





# HOW CAN URBAN PLANNING CONTRIBUTE TO DISASTER RISK REDUCTION?

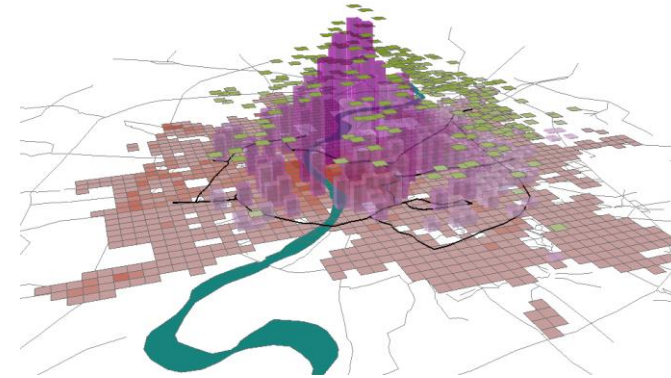
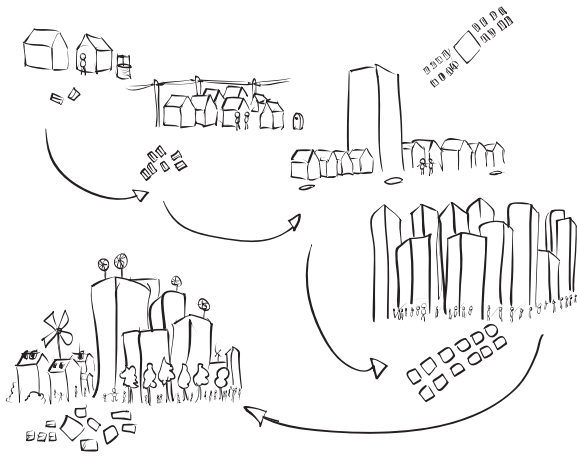


Housing – Water and Sanitation – Energy – Transport – Waste – Social Services – Urban Systems



# Sustainable Infrastructure – Infrastructuring

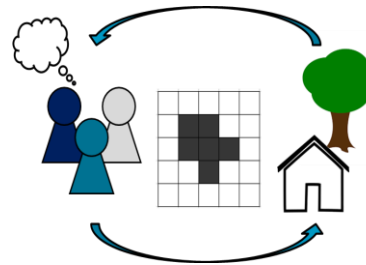
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# Human environment interactions in cities



How do we consider the environment in our land-use decisions?

