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Abstract title	Retrieving relevant land cover and land use data to design urban climate services
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The study of urban local phenomena related to climate, like heat islands, road icing, streets overflow during high precipitation events or air pollution, is necessary to develop efficient adaptation strategies to climate change. The URCLIM project studies more specifically urban climate knowledge production and services design. It is funded by the “European Research Area for Climate Services” that targets “the user-driven development, translation and transfer of climate knowledge to researchers and decision-makers in policy and business [...] as well as guidance in the use of climate knowledge.”

Climate scientists model interactions between meteorological phenomena (wind, moisture, temperature) described at a given scale and the surface of earth described at a finer scale in order to calculate finer meteorological phenomena, e.g. temperature variations depending on trees in cities. The climate community designs such generic canopy models adapted for a set of similar places. To obtain land data required to feed these canopy models, instead of each team producing ad hoc land data on his experimental site, this community has developed a joint approach: 1) agree on common formal specifications of such land models, also known as Local climate Zones, 2) design a production procedure of such Local climate zones data affordable by the community itself. The World Urban Database and Access Portal Tools, WUDAPT support collaborative production of Local climate Zones level 0 (resolution from 500m to 1km) based on Landsat satellite imagery. Producing Local climate Zones level 1 (50 to 100 meters), requires other sources related to buildings and vegetation (Masson et al. 2019). This requires discovering and reusing heterogeneous spatial data whereas there is neither one search engine nor a set of well identified catalogues that can be searched with user-oriented query words. This presentation will concentrate firstly on analyzing what are the relevance criteria from the urban climate scientist perspective to retrieve an existing urban land model or to produce it. We consider for example an accessibility criteria as well as an extrapolation criteria. Second we review the contribution of available metadata and ontologies to make proper recommendations to this scientist who wishes to design an urban land model for his specific study. Important metadata are: features catalogues, spatial and temporal coverage, temporal, geometric and semantic resolutions and accuracies. Last we demonstrate a metadata curation process based on the URCLIM infolab, a collaborative metadata platform (Bucher and Van Damme 2018).

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