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The Urban Exploitation Platform - An instrument for the global provision of indicators related to sustainable cities and communities

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The Sentinel fleet will provide a so-far unique coverage with Earth Observation (EO) data and therewith new opportunities for the implementation of methodologies to generate innovative geo-information products and services supporting the SDG targets. It is here where the TEP Urban project is supposed to initiate a step change by providing an open and participatory platform that allows any interested user to easily exploit large-volume EO data pools, in particular those of the European Sentinel and the US Landsat missions, and derive thematic geo-information, metrics and indicators related to the status and development of the built environment. Key component of TEP Urban initiative is the implementation of a web-based platform (https://urban-tep.eo.esa.int) employing distributed high-level computing infrastructures and providing key functionalities for i) high-performance access to satellite imagery and other data sources such as statistics or topographic data, ii) state-of-the-art pre-processing, analysis, and visualization techniques, iii) customized development and dissemination of algorithms, products and services, and iv) networking and communication. This contribution introduces the main facts about the TEP Urban platform, including a description of the general objectives, the platform systems design and functionalities, and the available portfolio of products and services that can directly serve the global provision of indicators for SDG targets, in particular related to SDG 11.