SEMINAR
Earth Observations Data Cube (EODC): Big EO Data for Sustainable Development
Gregory Giuliani

24 November 2020 – 16:15 Politecnico di Milano –
https://politecnicomilano.webex.com/meet/maria.brovelli

The key to sustainable development is achieving a balance between the exploitation of natural resources for socioeconomic development and maintaining ecosystem services that are critical to human's wellbeing and livelihoods. Some of these environmental issues can be monitored using remotely sensed Earth Observations (EO) data that are increasingly available from freely and openly accessible repositories. However, the full information potential of EO data has not been yet realized. They remain still underutilized mainly because of their complexity, increasing volume, and the lack of efficient processing capabilities. The EODC a new paradigm revolutionizing the way users can interact with EO data. It lowers the barrier caused by Big Data challenges (e.g., Volume, Velocity, Variety) and provides access to large spatiotemporal data in an analysis ready format. It significantly reduces the time and scientific knowledge required to access and prepare EO data having consistent and spatially aligned calibrated surface reflectance observations. We will present how the EODC can be used to monitor environmental changes across countries and can enable more effective responses to problems of national and regional significance.

Gregory Giuliani is the Head of the Digital Earth Unit and Swiss Data Cube Project Leader at GRID-Geneva of the United Nations Environment Programme (UNEP) and a Senior Lecturer at the University of Geneva's Institute for Environmental Sciences. He holds a BSc in Earth Sciences and an MSc and PhD in Environmental Sciences. Gregory's research focuses on Land Change Science and how Earth observations can be used to monitor and assess environmental changes and support sustainable development. Interdisciplinary is a key element for generating new ideas and innovations in his research.