UNIVERSITÉ DE GENÈVE
INSTITUT DES SCIENCES DE L'ENVIRONNEMENT

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SÉMINAIRE ÉNERGIE – ENVIRONNEMENT
Conférences 2021-2022

Rethinking Swiss urban infrastructure systems in times of crisis

Swen Eggimann
EMPA

Jeudi 24 février à 17h15

Cette conférence aura lieu uniquement via Zoom – pas de suivi en présentiel!

Lien pour la diffusion en direct avec Zoom : https://unige.zoom.us/j/65489922494
ID de réunion : 654 8992 2494
Code secret : 938475

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L'orateur

Sven Eggimann is an experienced researcher of next-generation urban infrastructure systems. His particular interests lie in sustainable transitions of current infrastructure systems, the water-energy-climate nexus, sustainable urban planning, geospatial analysis and next-generation infrastructure systems.

He works as a Scientist at EMPA in the Urban Energy Systems Laboratory. Sven Eggimann has a highly interdisciplinary background; His research is bridging the fields of urban planning, economics, environmental sciences and engineering. His research is motivated by the challenge of transitioning our urban built environment and infrastructure systems to a sustainable future.

Before moving to EMPA, he was part of the Infrastructure Transition Research Consortium leading the development of a national energy demand simulation model for an integrated system-of-systems model (called NISMOD2) at the Environmental Change Institute at the University of Oxford. He received a PhD at the Swiss Federal Institute of Aquatic Science and Technology (eawag) and the Swiss Federal Institute of Technology (ETH). In his PhD thesis, he analysed the potential for a sustainability transition of decentralised wastewater treatment systems and the role of data-driven technologies. For his work, he received one of the prestigious ETH medals. Prior to this, he was awarded an MSc in Geography with a specialization in Geographical Information Systems at the University of Zürich.

La conférence

Swiss cities and their infrastructure systems are faced with manifold challenges that necessitate a rapid sustainability transition. The recent pandemic accelerated the discussion on sustainable urban neighbourhood transformation. Urban neighbourhoods are faced with increasing temperatures due to climate change and the urban heat island effect, meaning that potential cooling demand increases need to be considered. At the same time, an increasing population and limited availability of land require densification of the built urban environment.

This presentation focuses on the challenge of providing green, dense and sustainable neighbourhoods. First, future cooling energy demand scenarios for the Swiss building stock are presented. Second, sustainable neighbourhood densification opportunities are shown for Switzerland. Finally, the concept of superblocks to foster urban green spaces is presented.