

Smart Planning for Better Cities

A cloud-based, user-friendly hub that integrates all city planning applications and services

Smart Urban Adapt's revolutionary tool integrates available data and models with visualisation tools and an interactive front end to provide city planners and public authorities with the user-friendly software they need.

Name	Smart Urban Adapt (SUA)
Project Type	Innovation
Lead Partner	ETH Zurich
Project Partners	ETH Zurich Imperial College London ESRI R&D Center Zurich AG IBM Research GmbH SmarterBetterCities AG
Project Manager	Jan Halatsch, ETH Zurich halatsch@arch.ethz.ch
Project Location	Pan-European, coordinated from Switzerland
Project Start Date	01.04.12
Theme	Sustainable City Systems

The climate change issue

City planners worldwide are struggling to solve the immense challenges arising from both rapid growth and climate change in our cities. These challenges are manifested in an increasing demand for traffic and public transport infrastructure, energy, water facilities, air quality and urban heat island issues affecting human health, to name but a few. Alongside these concerns there is a simultaneous need to minimise GHG emissions, and adapt against the impacts of climate change. Currently avenues for integrating solutions to all of these complex planning problems remain limited, and whilst growing metropolitan areas in Europe such as Zurich or London are evolving more slowly than their Asian or South American counterparts, they nevertheless face increasing pressures.



The project solution

Tackling these issues involves multidisciplinary interaction, including architects, urban planners, mobility and traffic managers, ICT experts, energy and water managers, health specialists, climate and environmental scientists, sociologists, economists and policy makers. The Climate-KIC project Smart Urban Adapt hopes to assimilate this know-how into one piece of software. Smart Urban Adapt is developing a system, which integrates available data and models with visualisation tools and an interactive front end, to provide public authorities with the software they need. Jan Halatsch and his team from ETH Zurich and Imperial College London, as well as experts from IBM and ESRI will integrate all available data and software to build a user friendly system.

The Smart Urban Adapt project will soon celebrate the completion of its pilot in Zurich, and will test-run the tool and its application in different environments across a range of temporal and spatial scales. Many European cities have already indicated an interest in the tool, but it is hoped to be later marketable to cities across the globe.



The role of Climate-KIC

Climate-KIC has worked to facilitate the collaboration of the partners in this project, providing them with the funding and expertise to develop an idea into a marketable tool. Whilst there are numerous research initiatives and collaborations with industry that work on a single aspect of the grand challenges facing urban planners, what has been missing so far is the integration of the tools which have been developed. From the software developed by ETH's research institute which demonstrates the impact of tall buildings on city micro climates; to IBM's research on urban sensing technologies for monitoring transport systems, water and energy distribution networks.

"We were aware of the many initiatives and knew that we somehow had to make all the pieces fit together. And this was how the idea of a data warehouse was born, a warehouse linked to the various applications and services that are needed by city planners and public authorities."

Jan Halatsch
ETH Zurich

About Climate-KIC

Climate-KIC is an initiative of the European Institute of Innovation and Technology (EIT) with a mission to create sustainable growth by addressing climate change mitigation and adaptation. As Europe's largest public-private innovation partnership we integrate education, entrepreneurship and innovation. By bringing together communities we help transform knowledge and ideas into economically viable products or services that help to mitigate climate change.

To find out more about this project or about working with Climate-KIC, get in touch by visiting www.climate-kic.org and www.sua.ethz.ch