Mobile AR for City Planning and Digital Services

Mobile Augmented Reality (AR) allows architects, citizens and other stakeholders in the city planning process to see how planned buildings would look at the real location.
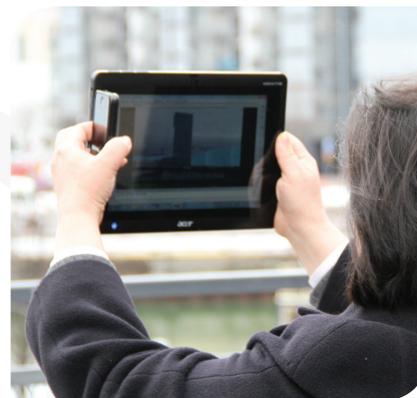
Co-operation with EIT ICT Labs

EIT ICT Labs' Smart Spaces activities Mobile Urban Augmentation (2013) and Street Smart (2014) enabled maturing the technology into an easy-to-use end-user application. Among the participating partners, Nokia contributed to the mobile phone and tablet implementation while Tampere University of Technology and Forum Virium took charge of customer relations and user tests.

Increasing understanding of city plans

The application allows different stakeholders in the city planning process to better understand the impact and evaluate alternatives of new building plans.

Compared to traditional methods, mobile AR allows the user to choose the view point arbitrarily from any location, e.g. from the yard or window where one is currently positioned at. Architects can understand the mass of planned buildings much better by "being there" on site than at the office. All this brings about improved planning and increased democracy, as well as time and money saving in the land use process.

Fully automatic solution for augmenting buildings

Our solution is far more advanced than any other on the market. Compared to competing systems, we offer fully automatic solutions for accurately augmenting the buildings at the right place.
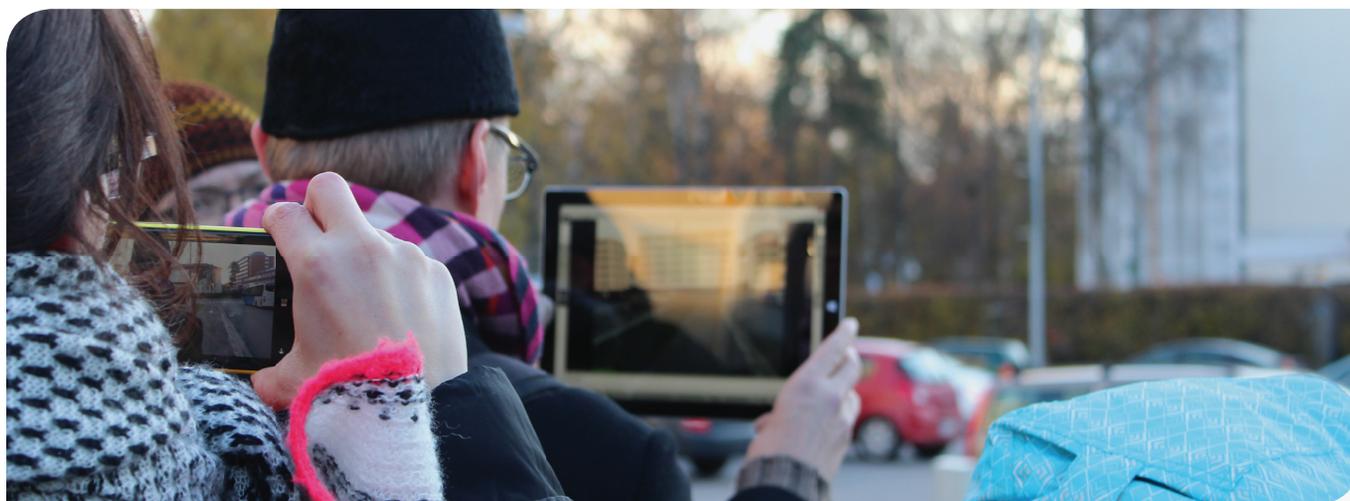

Societal Impact

Using mobile AR in city planning will lead to improved planning and efficiency. Showing citizens "the real view" of the building site will lead to greater acceptance.

Key Facts

The mobile AR technology can also be used for other applications like visualizing historical photos of the city and providing richer information on tourist attractions.
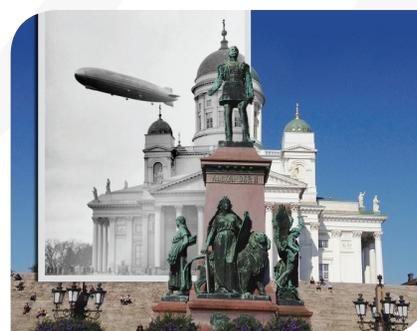
> **"We plan to offer Helsinki citizens applications that will enable to explore the future plans of the city through augmented reality."**
> — Pekka Koponen, Development Director from Forum Virium Helsinki.

The mobile AR technology has been matured and piloted with the support of the EIT ICT Labs' Smart Spaces Action Line. The first public application took place in 2013, after which several commercial building visualizations have taken place both in Finland and Sweden.

The application is currently made available on a per-project basis by VTT. Packaging the application into a publicly available product requires still a further development step.

With EIT ICT Labs support, business development actions have been carried out with Italian SME Inglobe Technologies srl, international distributor of VTT's core tracking technology.

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EIT ICT Labs

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