Authors
Prof. Sacha Menz, D-ARCH, ITA, Chair of Architecture and the Building Process
Hannes Reichel, D-ARCH, ITA, Chair of Architecture and the Building Process

IÖ-APP, real estate application
Retrieve, combine and assess various real estate parameters in order to arrive at indicators for appraising the value and potential of property.

Introduction
The IÖ app aims foremost to provide students with a more innovative, intuitive tool than a pocket calculator, or Excel; one that suits the subjective nature of real estate potential analysis. The mobile app also seeks to better accommodate the site-dictated nature of the architectural discipline. It would furnish students with a hands-on tool for appraising real estate parameters in real-world settings, visibly reinforcing for them the direct link between the built environment and its surrounding economic context.

Teaching concept
The concentration and elective subjects administered by our chair build on the compulsory undergraduate core subject, Building Process I+II. The lecture series focuses on the building process as a chronological sequence of design services and construction work. It covers the subject areas: building law and acquisition; building economics and sustainable strategies; participants and their services; and construction contractors and design professionals. In addition to discussing the fundamentals of the building process, its tendencies and terminology, projects of architectural and urban relevance are drawn on to explore the respective subject areas in greater depth. Each topic is viewed from the standpoint of form, area(s) of responsibility/competency, and communication. Active participation as well as interdisciplinary and process-orientated thinking is expected of students. In the graduate-level concentration subject, Building Process: Economics, students have the opportunity to examine in greater depth the thematic focal area, Building Economics and Sustainable Strategies. The standard weekly lectures and presentations are accompanied by project-based instruction. In the form of real-life scenario exercises, students learn to independently decipher what is and is not relevant to a project, and then practically apply the competencies presented and outlined in lectures. The assignments require a large degree of interdisciplinary competency in the areas of urban and architectural design practice, building and tax law, mathematics, sociology, and economics.

Analysis of student learning
The students really like the application format of the new tool and are able to use it independently after a short introduction during the semester's first lecture. Their first approach usually consists of analysing the plot of land where they live, or -by using the "locate me" function- the plot where the ETH-building the lecture is taking place is located. By applying the application on various plots, they seem to gain an understanding of the city's underlying economic forces and their manifestations in the built environment.

Lessons learnt

Students nowadays are used to smartphone applications and augmented reality functionality, making it possible to combine data with the environment and interacting with it.

The entry barrier for using the application was therefore very low, once the underlying economic principles were taught and understood. STEM-learning-wise the application represents almost a model case-study for combining data, skills and experience from various fields in one subject. Some of the data the application is using right now is static and therefore outdated within a very small timeframe. Our goal for the future of this app is to directly receive this live- data via an API.