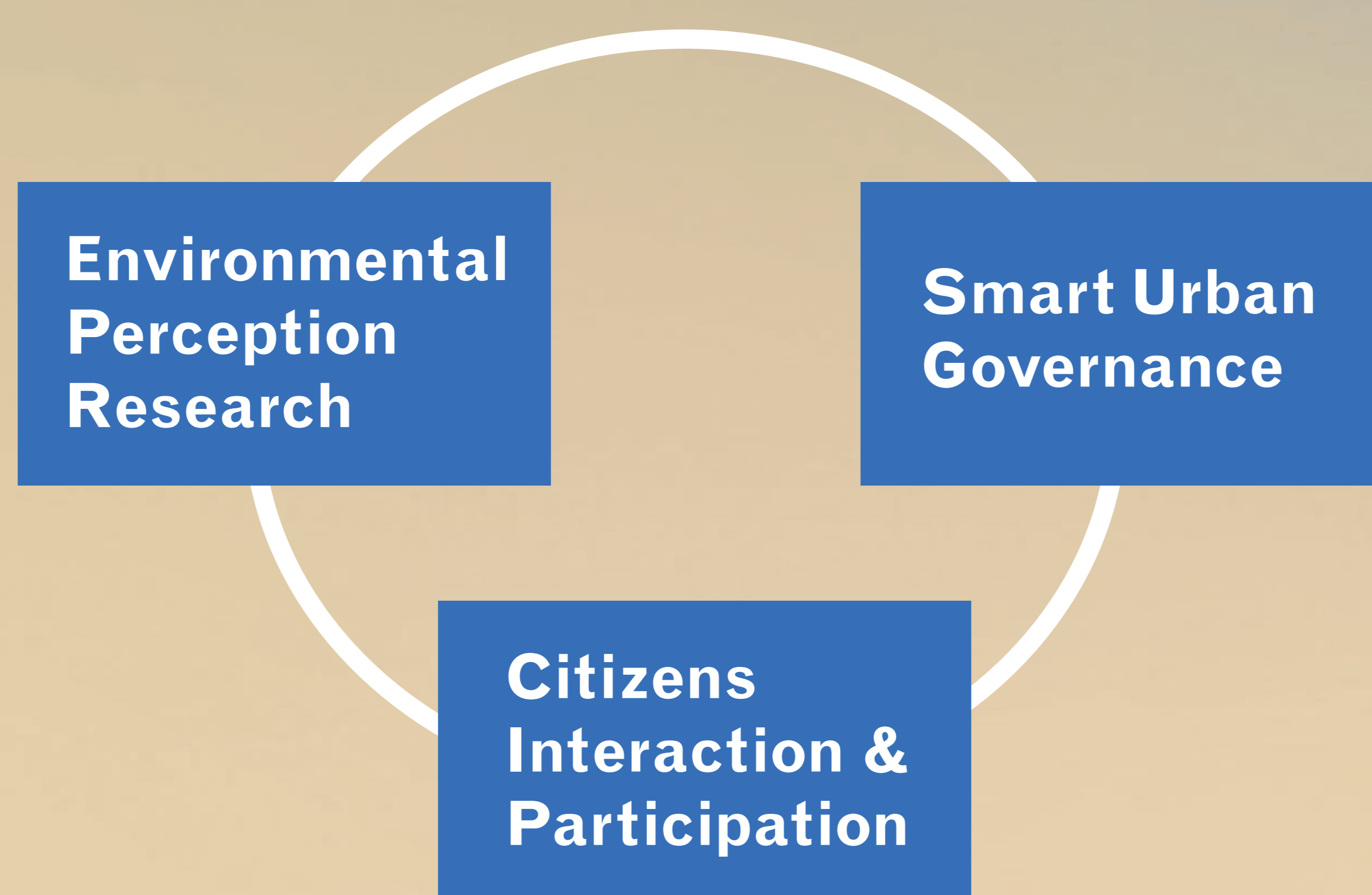




SOCIAL SENSING THE QUALITY OF URBAN ENVIRONMENTS

WeSense is a 'digital infrastructure' project led by the *Urban Landscape Architecture* Research Group at the Faculty of Architecture, TU Delft. It elaborates the potential of mobile technologies in measuring and monitoring qualitative aspects of urban environments, with a focus on three themes: **Smart Urban Governance**, **Urban Environmental Perception** and **Citizen Interaction & Participation**.



RESEARCH TEAM TU DELFT

René van der Velde Associate Professor of Landscape Architecture
(*Project Leader*)

Alexandra Tisma, Senior Researcher (*Researcher and project coordinator*)

Rick Fransman, Environmental Psychologist (*Researcher*)

Michiel Pouderoijen, Landscape Architect, (*GIS specialist*)

Research Partners

- > PSYT, Psychological Technologies, London;
- > Department of Planning and Sustainability, Municipality of Amsterdam
- > Department of Social Psychology, University of Leiden

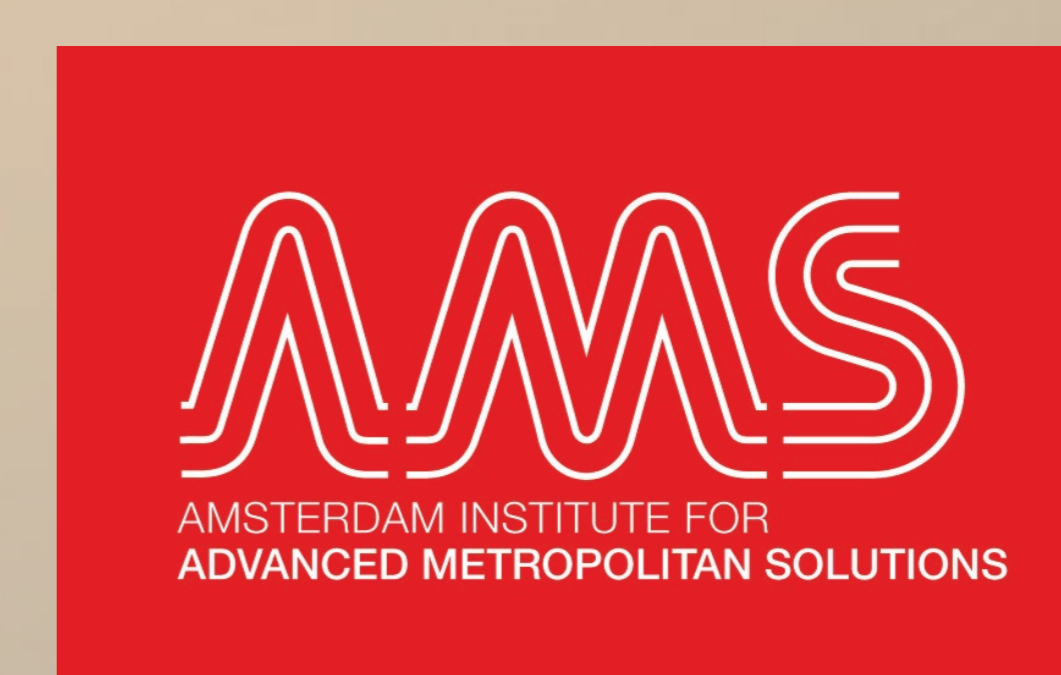
Financial Support

DIMI (Deltas, Infrastructure and Mobility Initiative);

AMS (Amsterdam Metropolitan Solutions);



Deltas, Infrastructures & Mobility Initiative



Universiteit Leiden



www.wesense.info



SOCIAL SENSING THE QUALITY OF URBAN ENVIRONMENTS



SMART URBAN GOVERNANCE

How do citizens perceive the variety of environments in contemporary cities, and what effects do these have on their wellbeing? Dynamic insights into these factors are valuable for urban planners and policy-makers in short-term operational decision-making; WeSense develops methods for rapid collection of localized data which allow administrations to react timely and efficiently to problems in specific locations. These insights are also valuable for long-term strategy and policy development such as open space planning. Data can also inform social indexes, whereby the urban living environment forms one of four “soft” pillars of vital and socially-inclusive cities.



URBAN ENVIRONMENTAL PERCEPTION

A second focus of the project is to contribute to fundamental insights into environmental perception of urban environments. As compared to traditional preference research that uses standard questionnaires and image facsimiles of (urban) landscapes, mobile devices allow large-scale responses from users in real-time, whereby the full spatial and sensorial effects of an environment can be measured. These insights can in turn inform scholarship in the field of aesthetics of designed landscapes.



CITIZEN INTERACTION & PARTICIPATION

Citizens are a fundamental factor for the success of ‘smart cities’. How citizens can be involved in modern urban challenges, and how public authorities can facilitate collective awareness and behavioural change, is one of the major challenges of the smart cities concept. By developing methods and systems for accessible and effective interaction, WeSense aims to assist the uptake and development of digital infrastructures to facilitate citizen interaction. By extension, the project aims to improve public awareness of public open space quality and its importance for urban life.

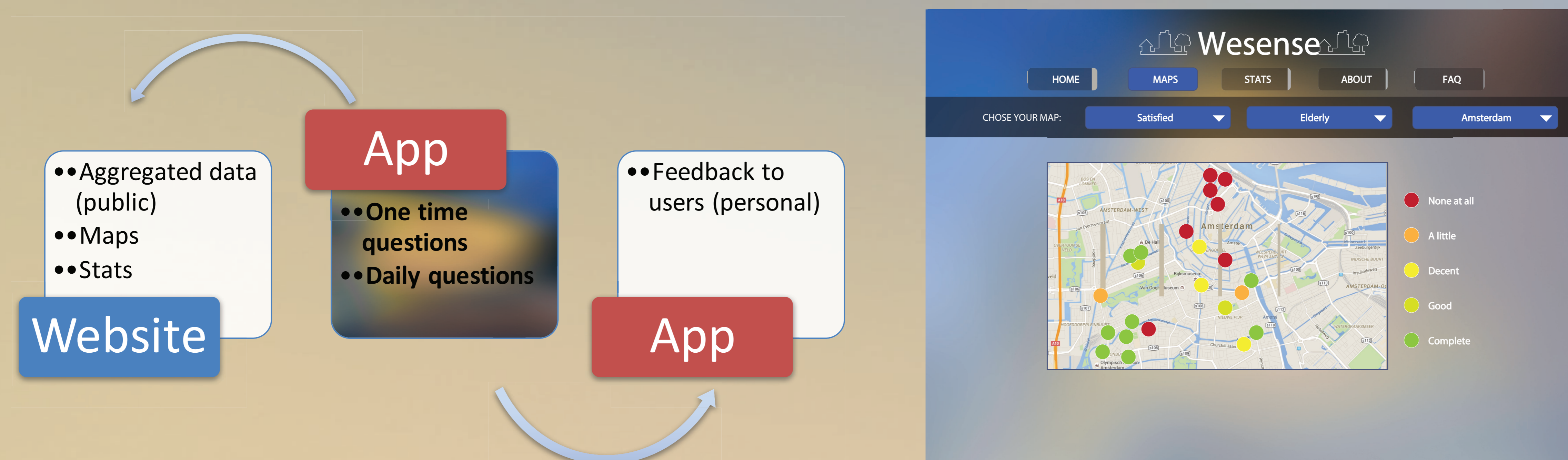




SOCIAL SENSING THE QUALITY OF URBAN ENVIRONMENTS

PILOT

The first stage of the project is a pilot, focusing on technical and interface aspects as well as 'community' development and application challenges in urban administration contexts. The pilot stage of the project is run in Amsterdam, as part of the AMS (Amsterdam Metropolitan Solutions) initiative.

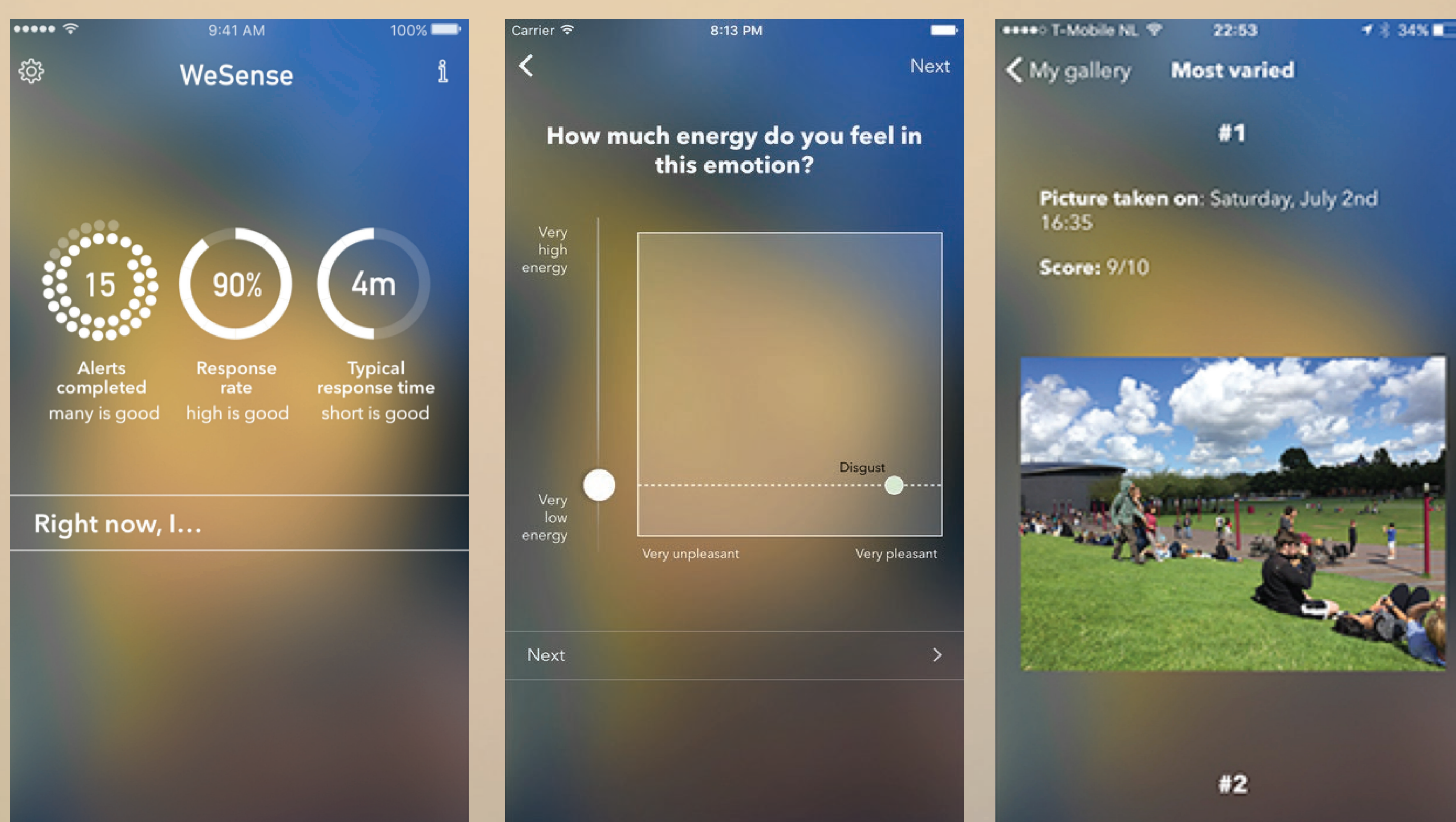


EXPECTED OUTCOMES

- Preliminary insights into perception aspects of urban environments;
- Preliminary insights into valuing aspects of urban environments;
- First insights into perceived quality of different public spaces in Amsterdam;
- Insights into technical and practical challenges of app and web-based interface;
- Feedback from administration on applications of data;
- Experimental crossing of GIS data;
- Experimental extrapolation of results with other social data projects;

APP

An IOS app has been developed and is available in the iTunes store for installation on I-Phones and I-Pads. After filling in a one-time **questionnaire**, users are 'bumped' at various times of the day and asked to fill in a set of questions and to take a **photo** of their environment. The responses are grouped around the aspects: satisfaction, use, company, aesthetics, sensorial aspects and busy-ness. The responses are located using GPS, allowing for the building of situated geographic data and visualizations. The data is stored anonymously and securely in a data bank. Dynamic maps and charts are displayed on a website (www.wesense.info).



WEB PLATFORM

The project includes a website in which real-time results are displayed. These include maps, graphs, and statistics.