DIMMER

Technology

The DIMMER system interfaces with building information, and district energy distribution networks models, and integrates them with real-time data from pervasive sensors at the network and building level and userprofile as well as feedback information. It allows access and the visualization of real-time information exploiting web services generated using an ontology-based approach.

Consortium

Politecnico di Torino, Consorzio per il Sistema Informativo (CSI Piemonte), ST-POLITO, CNet Svenska AB, D'Appolonia SPA, Fraunhofer Institute for Applied Information Technology, IREN Energia SPA, Clicks and Links Ltd, OVE Arup, The University of Manchester and the Association of Greater Manchester Autorities (AGMA, represented by Oldham Metropolitan Borough Council), Istituto Superiore Mario Boella and Università degli Studi di Torino

- Real-time data collection
- Advanced middleware technology for data integration
- Simulation and virtual visualization
- User/social profiling, visualization and feedback
- Energy efficiency and cost analysis engine
- Web interface and interaction

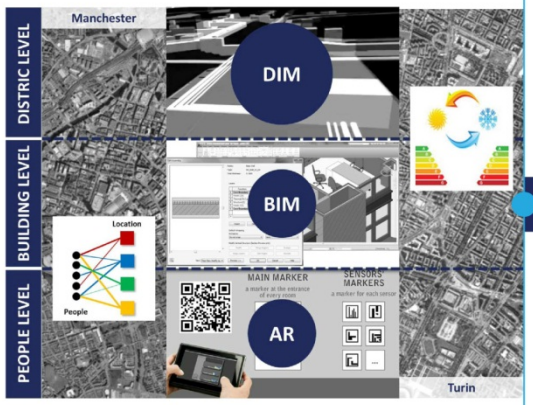
District
Information
Modelling
and **M**anagement
for **E**nergy
Reduction

Website: **http://dimmer.polito.it/**

Contacts: **dimmer@polito.it**

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n 609084.

Goals



The DIMMER system integrates BIM and district level 3D models with real-time data from sensors and user feedback to analyze and correlate buildings utilization and provide real-time feedback about energy-related behaviors.

It allows open access with personal devices and AR visualization of energy-related information to client applications for energy and cost-analysis, tariff planning and evaluation, failure identification and maintenance, energy information sharing.

Software Infrastructure

The DIMMER system enables the integration of BIM, distribution network models, sensor data (both from environmental and energy production/consumption monitoring systems) and user feedback through QR Codes and web portals. It also develops a set of client applications for three types of users: **energy suppliers, facility managers and district energy consumers**.