Collaborative Recommendations and Adaptive Control for Personalized Energy Saving

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723059

The project at a glance

Starting date: 1 November 2016

Duration: 36 months

Main topic: Behavioural change towards energy efficiency through ICT

Total budget: 3.309.375 euros

Total financing: 2.000.350 euros

Partner: 5 universities
6 companies and end-users
3 utility companies

Our objectives

- Objective 1: stimulate behavioural change for energy saving using innovative digital tools

- Objective 2: make energy usage data accessible to consumers in a user-friendly and easy to understand way

- Objective 3: demonstrate that individual comfort levels can be maintained while achieving energy saving

- Objective 4: validate the effectiveness of different types of behavioural change Interventions for different types of users in different types of climatic conditions

- Objective 5: make the enCOMPASS platform and other digital tools available to third parties to start new services for smart energy demand management

Our approach

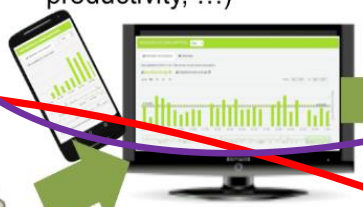
YOU LEARN

YOU PLAY

Consumer Apps
- Visualization
- Awareness
- Feedback (on comfort, productivity, …)

Engagement & Behavior Change
- In-context adaptive recommendations
- Goals, Achievements, Rewards

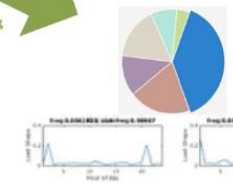
Digital+real games



Data acquisition
- smart meter & sensors

enCOMPASS

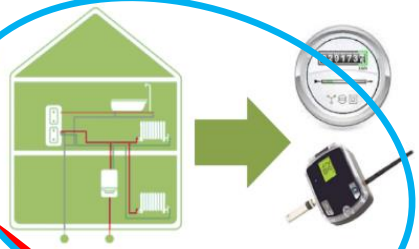
Consumption & ambient data repository
- Privacy
- Security



Data analytics
- End use disaggregation
- Activity / context detection

Building and User modeling
- Building/ Household features
- User clustering
- Demand prediction and simulation
- Intelligent control policies

Intelligent control



WE WORK

YOU SAVE

4 main elements

- Energy usage information from in-home information

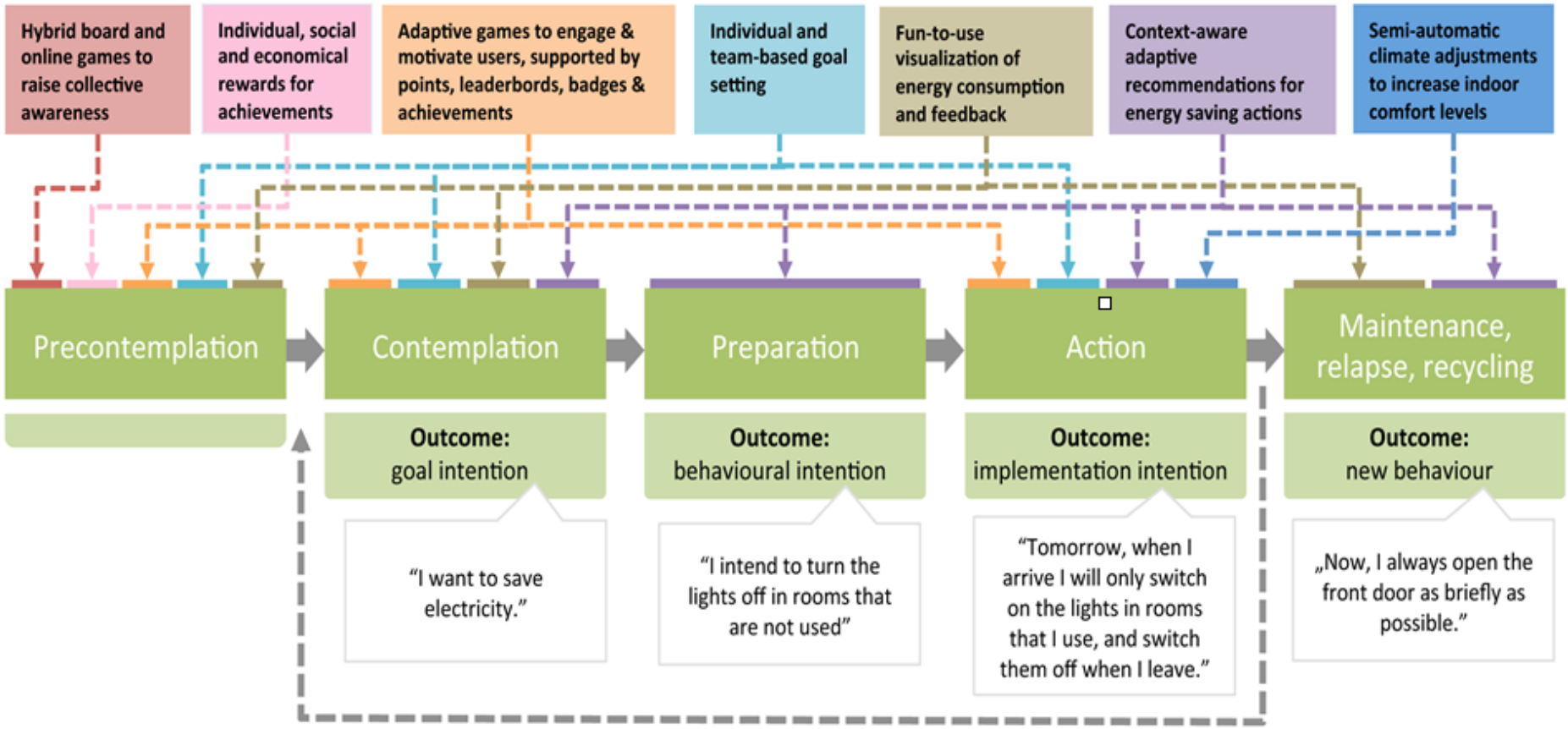
(smart meters and communication-enabled smart home appliances for heat and electricity)

- User-generated information

(automatic and manual activity tracking)

- Adaptive gamified energy visualization
- Intelligent controls and automation for sustainable changes in user energy consumption maintaining the user's comfort level

enCOMPASS holistic model



3 on-site scenarios

Building type	Target groups
Residential homes/apartments: 300 households (100 per country)	Families (with & without kids), single households, students, building managers (ca. 600 participants)
Schools: 3 schools, 10 classes per school	Students, teachers, building managers (ca. 900 participants)
Public buildings: 3 public buildings	Employees, visitors, building managers (ca. 500 participants)
Countries: Germany (Hassfurt), Greece (Athens & Thessaloniki), Switzerland (Gambarogno)	

Having fun!

The main object of the game is to provide a very simple concept: saving energy is something involving all of us.

We do not want to change our everyday comfort level to save energy but we must understand that there is always a limit to the energy we can really use!

How to follow enCOMPASS

http://www.encompass-project.eu/

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Consortium

enMPASS

POLITECNICO DI MILANO

NABU

ktu kaunas university of technology 1922

iti Information Technologies Institute

SETMOBILE

stadtwerk haßfurt

EIPCM EUROPEAN INSTITUTE FOR PARTICIPATORY MEDIA

Scuola universitaria professionale della Svizzera italiana SUPSI

PARADOX ENGINEERING UNLOCKING THE VALUE OF YOUR DATA

EKT ΕΘΝΙΚΟ ΚΕΝΤΡΟ ΤΕΚΜΗΡΙΩΣΗΣ NATIONAL DOCUMENTATION CENTRE

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