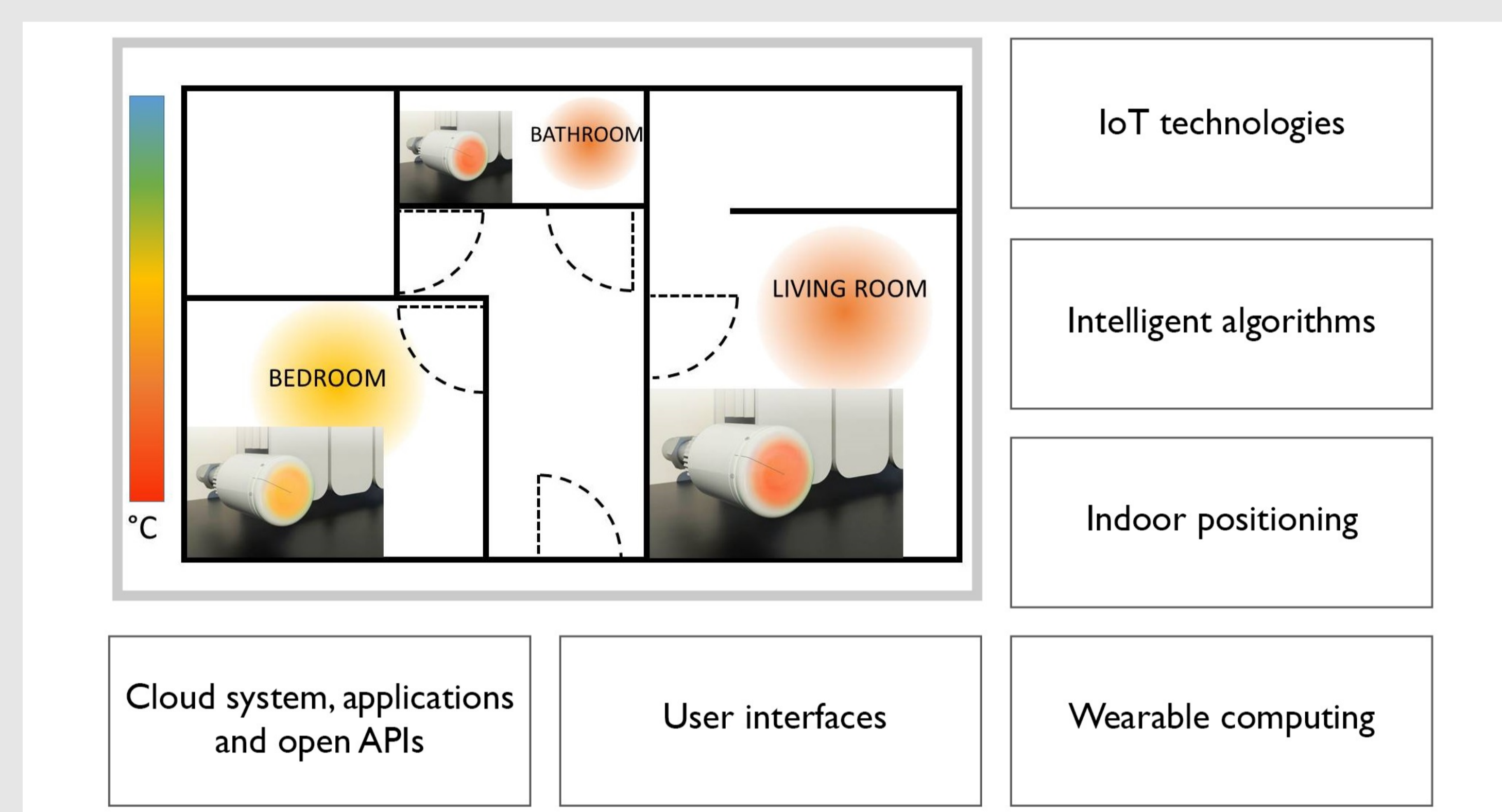


The Project

The **SmartHeat** project aims to **leverage on modern IoT technologies** in order to radically change the home heating experience for **health, comfort and wellbeing of elderly people**.

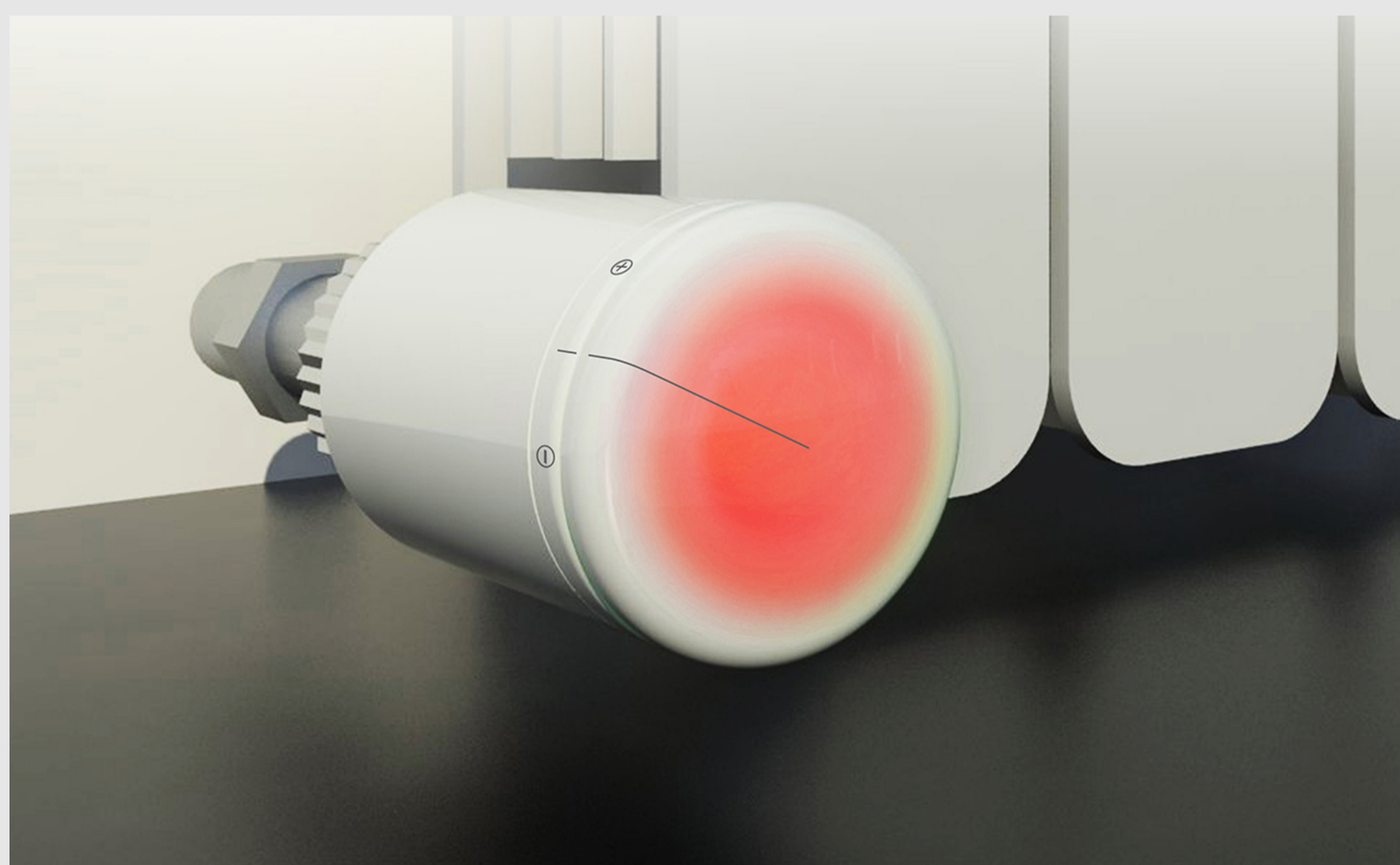
The goal will be achieved via the development of a smart, secure and **elderly friendly ICT system** for heating monitoring and control.

Architecture



Industrial Design

The **SmartHeat** project is strongly focused on the end users and their satisfaction. The consortium aims to produce, at the end of the project, a prototype that is very close to exploitation on the market. The end users are involved in the project since the beginning in order to maximize the chances of user satisfaction and lower the adoption barriers.



Internet of Things

A key building block of the platform is what we call the **smartTRV**, a **Thermostatic Radiator Valve** equipped with IoT technologies for monitoring and control of the radiators via the Internet. The smartTRV can also control a radiator in an autonomous way depending on the environmental conditions of the room, such as temperature, presence, humidity, etc.

Cloud, Apps and Open APIs

A cloud-based system will provide storage and application development functionalities. **Informal or formal carers** who are not at home can receive **alerts**. If the user sets a temperature but the system knows that the temperature in a certain room is not safe for the user, the carer can be informed and adjust accordingly.

Intelligent Algorithms

The SmartHeat system can be controlled manually by the user but it can also be controlled in an automatic way. **Intelligent algorithms** allow the system to learn the user's habits and taking into account the environmental conditions (**room temperature and humidity, presence, light, proximity, etc.**) controls the heating system accordingly.



User Interfaces

The SmartHeat system will be provided with older adult **friendly user** interfaces, which can be adapted based on the skills of the user. The interaction between the system and the users is done via different user interfaces, such as **PCs, smartphone or tablet**, which also enable the access from outside the home.

Current Status of the Project

- ☒ **More than 250 end-users involved during interviews, workshops, prototypes...**
- ☒ **First prototypes of the SmartHeat solution: TRV, Sensing Unit, Intelligent algorithm, Interface, Gateways...**
- ☒ **UI already tested and improved based on feedback**

Future Steps

- ☐ **Integration and production**
- ☐ **First trials in January 2017**
- ☐ **30 households, 100 TRVs to deploy**

Duration: 36 Months

Partners:

University of Geneva (CH) - Coordinator
 Modosmart S.L. (ES)
 MX-SI S.L. (ES)
 Sensor ID s.n.c. (IT)
 terzStiftung (CH)
 EURAG (AT)
 Gluk Advice B.V. (NL)
 Teamnet International (RO)

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