

GAMECARE. Lose weight the healthy way

Customized solution for obesity treatment designed to help you lose weight in a healthy way through ICT in such a simple way that it will even seem like a game.



Contact information

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Technological Offers type

Technological solutions

Research and innovation areas

- Digital Technologies, Artificial Intelligence, Cybersecurity, 5G, Robotics
- Health and Wellbeing

ODS



Available from: 2020

Where?

Life Support Technologies

Keywords: | obesity

Brief description of the technology solution and the added value it provides

Life Supporting Technologies (LST) of the Technical University of Madrid (UPM) together with healthcare professionals, has developed Gamecare, a virtual clinic based on intelligent systems that are able to monitor and control biological parameters and the user's diet information, with the aim of treating obesity. By applying innovative technologies, LST has achieved a low cost system that engages users. It also controls and supervises their activity steadily. Training modules and voice guidance have been validated with more than 30 users in a medical environment. The global market related to obesity in Spain is around 8% of the annual public health expenditure, therefore it is estimated that in 2013 the potential target market of Gamecare could grow up to 4,600 M €.

Description of the technological base

The solution developed is an online clinic where the patient through virtual visits has the opportunity to follow the right method to treat obesity without having to commute. This clinic is based on intelligent systems able to monitor and control both biological parameters and the patient's nutrition with the goal of losing weight.

By using different technologies the system can monitor the health of the patients and it is also able to engage them through games and achievements, as well as by means of social networks between doctors and patients. During physical training session, the doctor can control the patient in real time and he also has the opportunity to send supportive and motivational messages.

"A new solution that helps to lose weight in a fun way while playing games, with continuous monitoring of the patient by professionals in a full immersion of social network with experts"

Market demands

- Obesity is considered the responsible for more than 3 million deaths per year worldwide. Obesity and overweight pose a major risk for developing chronic diseases, including type 2 diabetes, cardiovascular disease, hypertension and stroke, and certain forms of cancer. A total of 502 million people worldwide are obese and in the last 30 years the numbers have doubled; nowadays, more than 10% people are obese people. The World Health Organization (WHO) rates obesity as the pandemic of the 21st century.
- These 3 million obesity related deaths in 2010 is 3 times as much as the number of people who died due to malnutrition. The trend has been reversed, according to data collected over the past 20 years in the prestigious journal The Lancet report "Global Burden of Disease Study 2010".

"This is a Global public health problem. Obesity is one of the four risk factors responsible for a high number of global premature deaths: 3 million deaths related to obesity have been recorded in 2010."

Competitive advantages

- Pioneered development of the use of non-invasive textile sensors based on Continua Standards compliance interoperability with low-power technology Bluetooth 4.0: devices cost savings (50 € compared to 200 €).
- Training system and voice guidance validated with more than 30 users, getting an acceptance degree more than 95%. The use of games, personalised exercise with voice guidance and gamification in training sessions to support health care: users engagement.
- Realtime monitoring, management system of patients, creating custom rules (alerts, notifications...), feedback between doctors and users: continuous control and supervision.
- The use of social networks between doctors and users.

Development stage

- Concept
- Research
- **Lab prototype**
- Industrial prototype

- Production

Contact

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