

## A virtual healthcare assistant for a healthier lifestyle

Anyone who has ever been told by their doctor to steer clear of certain foods, lower their calorie intake or cut down on salt knows just how hard it can be to avoid temptation and stay motivated. A virtual healthcare assistant is being developed to offer a guiding hand.



The personalised information system being created by the [PIPS](#) project will give users access to real-time healthcare advice anywhere at anytime over mobile and fixed-line devices, helping them to consistently make the best choices to lead a healthier lifestyle. People suffering from illnesses such as diabetes or obesity stand to benefit but so too do people considered at risk of developing so-called 'lifestyle diseases' or anyone simply looking to lead a healthier life.

"By giving people instant access to information that is personalised, based on their individual health, preferences and behaviour as and when they need it, they can make well-informed choices in a restaurant, at the supermarket or when out exercising," explains Alberto Sanna, the coordinator of the IST project. "Healthcare shouldn't have to be a list of things you should or should not do, because occasionally eating a steak rather than a salad is ok. It's a matter of knowing when you can."

The project partners are developing a virtual reality environment to train people to use the system and to educate them about healthy living. In forthcoming trials, questionnaires compiled with doctors asking them not just about their health but also lifestyle factors will be employed to draw up personal profiles. Medical knowledge that is specifically tailored to their profile will then be made available to them at the touch of a button.

The system can also be used to provide recommendations, such as reminders to take medications, and to feed information to doctors to create a more accurate history of the evolution of patients' health and lifestyle changes between consultations.

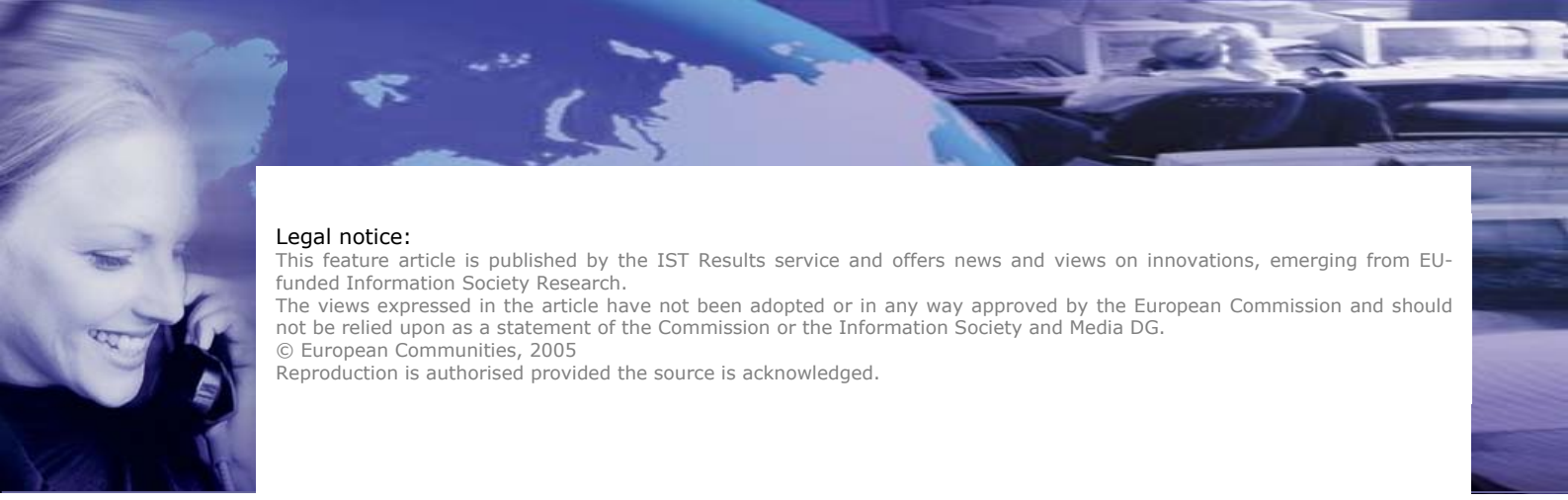
"One of the benefits is that the system reduces the burden on doctors and improves their understanding of their patients' conditions," Sanna says. "But our system goes far beyond telemedicine in that it emulates the one-to-one relationship between a patient and their doctor in the virtual realm. It could also expand the boundaries of the traditional healthcare sector to include food and beverage producers, manufacturers of healthcare products and information providers all of whom can play a role in lifestyle decisions."

Sanna likens the rollout of user-driven information and communication technologies in the healthcare sector to the discovery of penicillin. "The discovery of penicillin allowed many diseases to be cured, the increased healthcare awareness and monitoring provided by ICT [Information and Communication Technologies] could prevent people falling ill in the first place," he says.

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