

## **Health-2-Market advanced consultation services for health researchers: The Alterniity case**

Dr. Ioannis Tarnanas, founder and Managing Director of Alterniity GmbH, shares with us his experience from collaboration with our team under the advanced consultation services action offered by Health-2-Market.

- a) Could you explain what the Alterniity solution is all about and how it works?

Alterniity suite of products has collected 12 years of neuropsychological, neurophysiological, neuroimaging and behavioral data by means of a virtual reality serious game, in order to model the profile of the patients who will progress to dementia within the next 2-4 years. We found that the prediction based on the performance at the virtual reality based computerized assessment instrument is comparable to that of more established and widely accepted biomarkers, such as ERP and MRI. This can be explained by the cognitive fidelity and richness of behavioral data collected with virtual reality based measures, which directly reflect neurocognitive processes affected at a very early stage.

- b) What was the driving force behind dedicating 12 years of your life in researching on how to support elderly people with dementia? Why is Dementia such an important social challenge for current and future societies?

There is a growing interest in the use of computerized behavioural data screening and prevention technologies, such as digital apps and serious games as an early screening as well as a valid and reliable prevention of cognitive decline in elderly persons. If virtual reality based computerized tools are to be widely recognized as an early screening tool for early dementia, there needed to be more longitudinal clinical trials and correlations with more biomarkers, such as cerebrospinal fluid (CSF). Such effort enables clinicians to better clinically validate our cut-off scores.

- c) How did you decide to take the step from research to entrepreneurship and create Alterniity? What is your personal motivation and ambition behind?

The research so far was partially funded by European projects, such as PharmaCog (Prediction of Cognitive Properties of New Drug Candidates for Neurodegenerative Diseases in Early Clinical Development) and Long-Lasting Memories 2010-2013. Both projects were started in 2010, and were a partnership of 32 academic and industry actors from seven countries and one of the most ambitious European projects for tackling bottlenecks in Alzheimer's disease research and drug discovery. Based on those project results, we realized that serious gaming shows great promise as a novel computerized assessment of cognition and could assist Alzheimer's disease research and drug discovery by creating early screening behavioural profiles for Alzheimer disease using low cost, internet delivered and non-invasive out-of-the box technologies. This was our motivation to become entrepreneurs.

- d) Which were the main difficulties you had to face? Is it just about learning a new world or is it more about changing your mentality from researcher to entrepreneur?

Both field, such as research and entrepreneurship have similar requirements, such as scientific proof and quality of the final outcomes or products. However, the main difficulty we had to face is that the academic environment can sometimes afford to run at slower speeds than the business one. Adapting our speed in order to be competitive is a challenge we still face today.

- e) How did the Health-2-Market project help you towards Alterniity? How did the cooperation start, what did Alterniity need in particular at the time and how did Health-2-Market finally manage to respond to your needs?

We needed a business plan and Health-2-Market provided exactly that but also valuable mentorship for our next step business analyses and strategy.

- f) Can you give us a deeper insight into your cooperation with Health-2-Market experts (White Research SPRL)? Did you find it smooth and easy? Were they prepared and open to understand your (the researcher's) point of view or were there any major problems caused by different mentalities?

They were extremely knowledgeable and helpful with regards to the special requirements of the health market. Our cooperation was extremely easy.

- g) What did you appreciate most in this interaction? The exchange of knowledge, the exchange of ideas, the in-depth discussions, the assessment of the different options and strategies, etc? Did Health-2-Market ultimately help you shape a better commercialization strategy for your start-up company?

The commercialization strategy is still on-going but Health-2-Market provided a very good basis for further analyses.

- h) What are the future plans of Alterniity for the next 2-3 years and how do you envision your company in 10 years from today?

10 years from now is difficult to imagine, probably we will make an exit before that. However, 2-3 years from now we envision a solid user-base and a growing social impact of our solution at least at the European market.

- i) Last but not least, would you advise other health researchers to take advantage of the Health-2-Market offered services? Do you think that initiatives of this kind should be further developed at a European level?

Yes, we would strongly advise more health researchers to look into the European level tools and activities such as Health-2-Market. Apart from the obvious benefit of market exploitation, such synergies provide a fertile environment for growth and business opportunities not available at the academic environment. We could strongly encourage more such actions.

Should you require more information about Health-2-Market advanced services please contact the project coordinator.
---