Automated, speech-based cognitive pre-screening for clinical trials in Alzheimer’s Disease

More than 9 million people are affected by Alzheimer’s Disease in Europe and despite 400 ongoing trials, no new treatments have been approved in over 15 years. Key challenge: Identifying and screening the right subjects. In-person screening takes time and costs €6k but less than 10% of them fulfil the criteria.

DeepSpA remotely and automatically pre-screens potential participants over time to increase success rates in screening, helping match the right patients with the right trials and speed up enrollment.

To improve the competitiveness of European research in the field, a telemedical solution for neurocognitive pre-screening and monitoring of participants of clinical trials will be developed. Standard cognitive assessment hinges on a set of speech-based cognitive tests which have the potential to be conducted remotely using a regular telephone.

Recent improvements in speech analysis and automatic speech recognition have become mature enough to automate such speech-based testing procedures. DeepSpA will supplement conventional in-person manual testing with remote semi-automated analyses methods.
Competitive Advantages

- Multilingual
- Excellent scalability – no special hardware or skills required
- Highly automated, AI-powered solution reduces workload for specialists and reduces patient burden.

Target Markets

- Pharmaceutical companies with research projects for new medical treatments for Alzheimer’s or other conditions with cognitive decline.

Status/Traction

- DeepSpA is a X-KIC activity between EIT-Health and EIT-Digital
- The EIT-Health consortium comprises Janssen Pharmaceutica, a major pharma company in the field of new neurodegenerative disorders
- DeepSpa will deliver the core assets required for automated speech-based pre-screening solutions.

Road Map

2019
- Implementation of the remote phone-screening front-end and validation of the automatic classification back-end.

Connect

Johannes Tröger,
Activity Leader
e: Johannes.Troeger@dfki.de
t: +49 681 85775 -1054

Location

c/o
Cognitive Assistants
DFKI GmbH, Campus D3 2
Stuhlsatzenhausweg 3
D-66123 Saarbrücken,
Germany

DeepSpA is an Innovation Activity proudly supported by EIT Digital

EIT Digital supports entrepreneurial teams from research and business organisations in launching new startups and new products in agile 12-month projects called innovation activities. These activities are embedded in EIT Digital’s European ecosystem and receive a financial co-investment to package their technology, sign up customers and attract investors.