Dementia is usually diagnosed through a series of tests and investigations that are time consuming, expensive and stressful. Therefore, only 50% of all cases in Europe are actually diagnosed which has significant implications on individual care management and the general health care system.

ELEMENT aims at a fast, cheap and remote broad screening, enabling early intervention to maintain a person’s quality of life. The app allows assessing peoples’ cognitive ability based on speech analysis in a non-clinical/clinical supervised setting. Machine-trained algorithms will indicate the risk for dementia, which can then be followed up by an expert’s comprehensive assessment.

ELEMENT is developing an app that enables neuropsychological assessment for cognitive decline, such as dementia. As it is based on speech analysis in non-clinical settings, it results in faster and earlier diagnosis and intervention.

Early detection of cognitive disorders on the basis of speech analysis
### Competitive Advantages
- Facilitation of light-touch screening for cognitive decline in clinical and non-clinical settings
- More comfortable and flexible usage without visiting professional physicians
- Faster, cheaper and remote screening
- Reduction of overall costs associated with care management

### Target Markets
- One of the main use cases is the broad and lightweight screening of older persons in care settings, such as home care or nursing homes
- Customer segments are professional care givers, general practitioners and specialists (neurologists, neuropsychologists, speech therapists)
- Target markets are France (short-term) and German speaking markets (intermediate term)

### Status/Traction
- DFKI finished first cycle on predictive models
- From April on Association Innovation Alzheimer and University of Edinburgh will start recording patients in the Nice Memory Clinic and Edinburgh University Clinic respectively
- INRIA develops affective models for an improved differential classification model

### Road Map

<table>
<thead>
<tr>
<th>Year</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Evaluation of the solution and launch of spin-off</td>
</tr>
<tr>
<td>2018</td>
<td>Certification and Commercialization</td>
</tr>
</tbody>
</table>

### Connect

**Jan Alexandersson**
ELEMENT Activity Leader
- e: janal@dfki.de
- t: +49 681 85775 5347

**Location**
DFKI GmbH
Stuhlsatzenhausweg 3
D-66123 Saarbrücken
Germany

**Partners:**
- ki elements (Business Champion), DFKI, INRIA, University of Edinburgh and Association Innovation Alzheimer

---

**ELEMENT is an Innovation Activity proudly supported by EIT Digital**