

# APH- ALARM

---

Comprehensive safety  
solution for people with  
Aphasia



# International R&D AAL-Project

- Partner Countries:
- Hungary (Lead)
- Austria
- Portugal
- Duration: 36 Months



LOIDL CONSULTING  
& IT SERVICES GMBH



AFÁZIA  
EGYESÜLET



INOVA+



NATIONAL  
RESEARCH, DEVELOPMENT  
AND INNOVATION OFFICE



Bundesministerium  
Klimaschutz, Umwelt,  
Energie, Mobilität,  
Innovation und Technologie

FCT  
Fundação  
para a Ciência  
e a Tecnologia



# Aphasia:

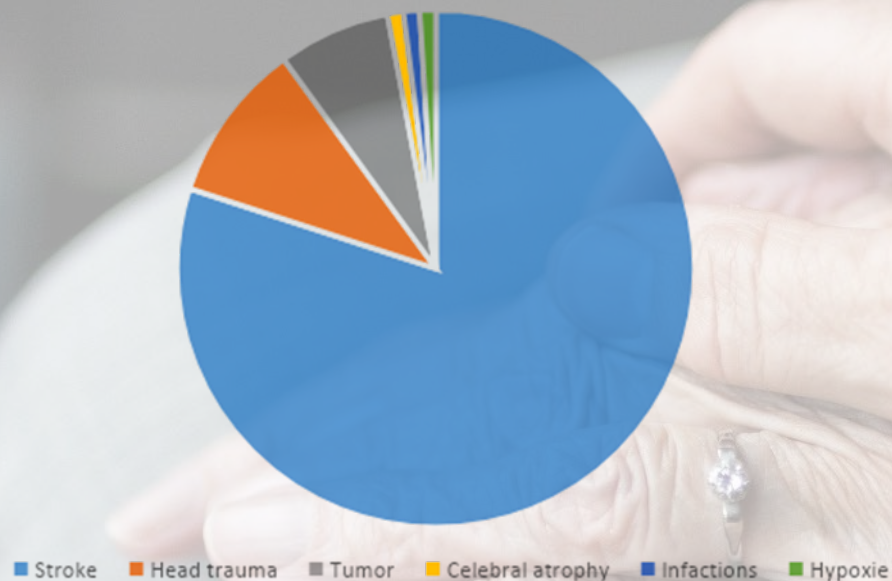
## The inability to use language

- Speaking
- Listening
- Reading
- Writing





# Causes of Aphasia

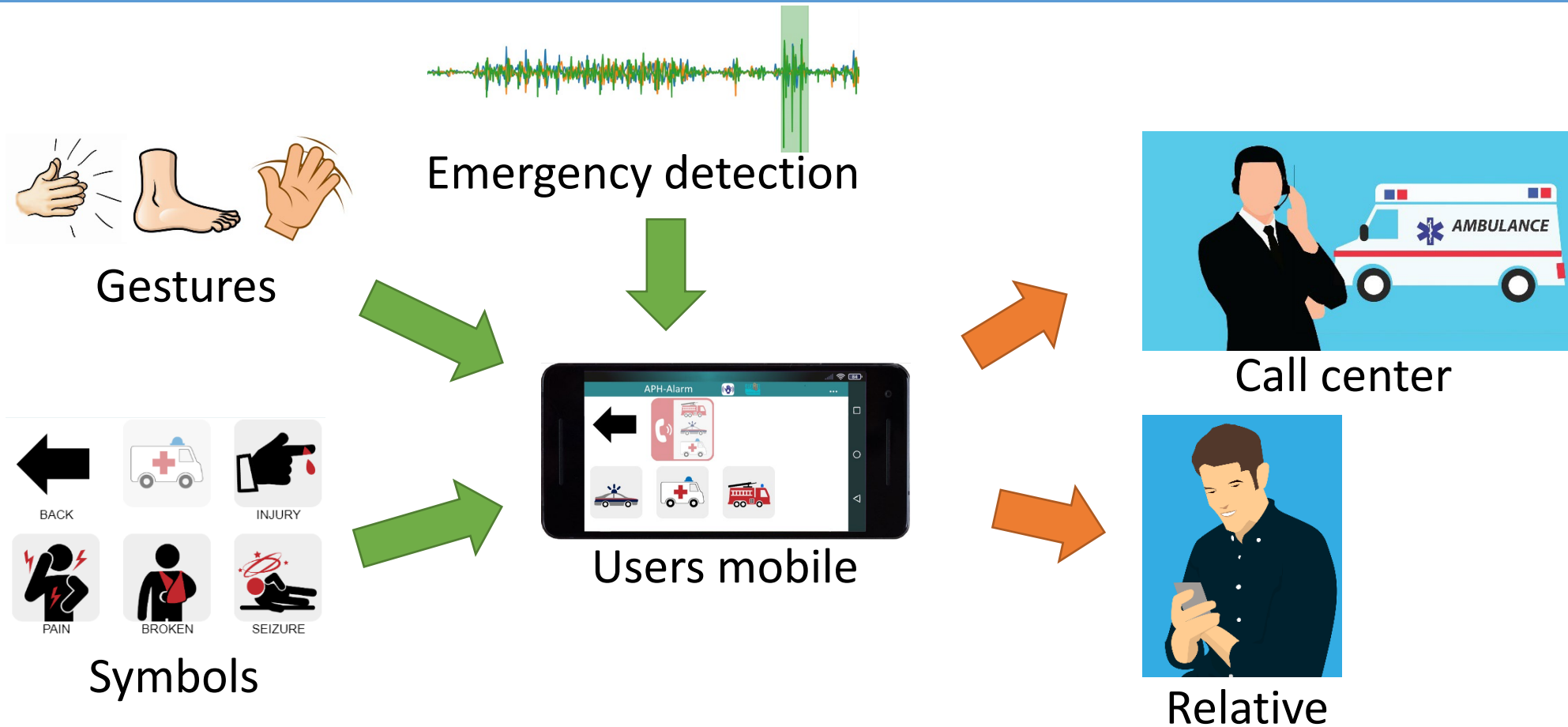


- Number of stroke incidents increases
- Mortality after stroke decreases

80% of stroke incidents result in Aphasia

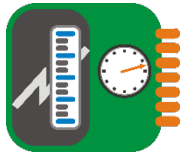
Mainly affected (Primary User Group): People 55+

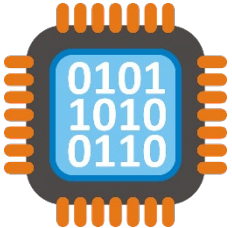
# The APH-Alarm System (mobile usage)

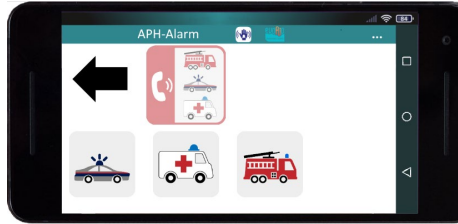


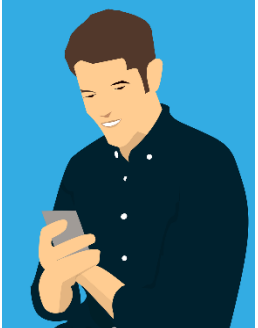
# The APH-Alarm System (“in bed” usage)

  
Indoor radar

  
Sensors

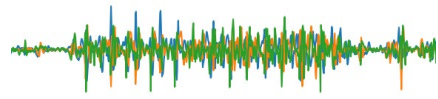
  
Local processing unit

  
Users mobile

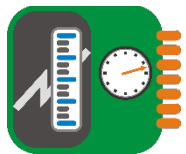
  
Relative

  
Call center

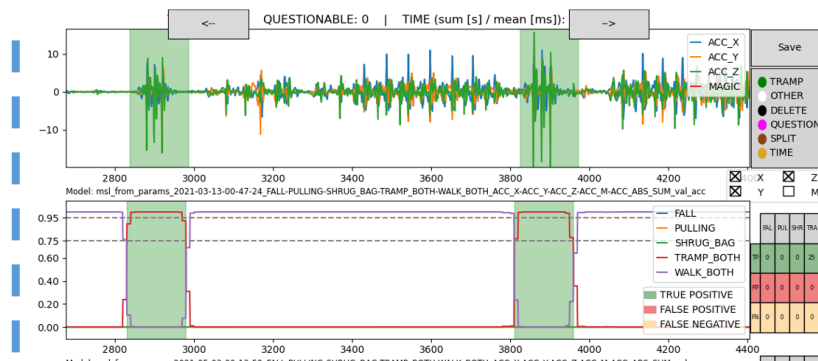
# Technical Data Flow (By Sensors)



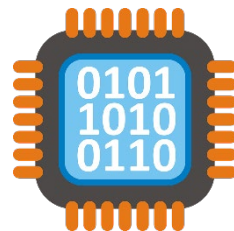
Raw data stream



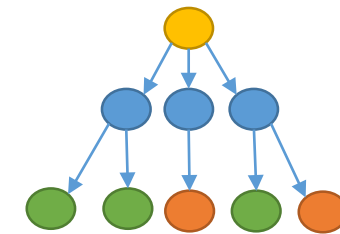
Motion Sensor



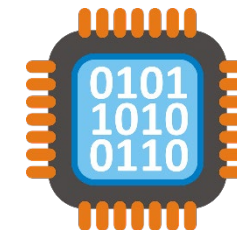
Detection of  
trigger events



Pre trained  
AI model

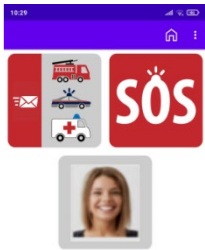


Decision finding



Decision tree &  
event generation

# Manual Alarm (By Symbols)



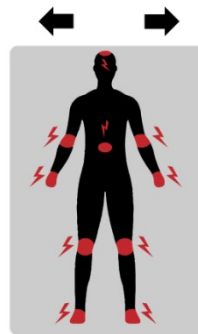
Simple UI structure  
Icons, text, TTS



Quick first choice



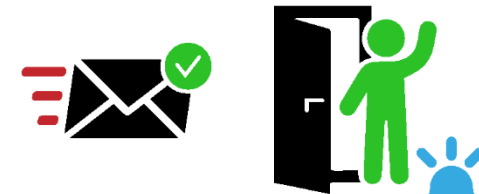
Option to give details



Flat hierarchy  
Option to skip details



Send combined message



Link with secondary app:  
Request confirmed



# User involvement

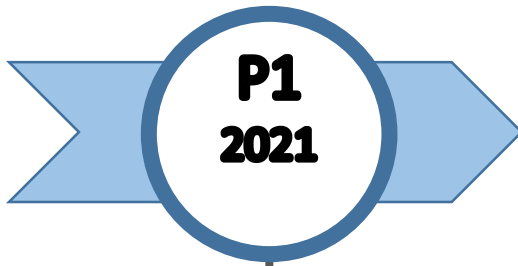
Potential users in three countries

Experts and secondary users

Iterative evaluation in lab and field

- Main user partner: Aphasia organisation in Hungary
- Additional users from Austria and Portugal
- Ethical guidelines
- Requirements collection
- Evaluation of prototypes

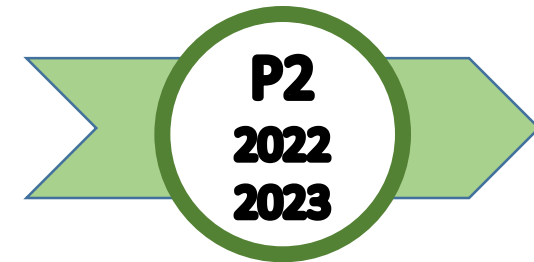
# Project Timeline



- User Requirement Analysis
- First Market size estimations
- Technical specification



- Technical development
- Data collection
- User involvement (Testing, Symbols)



- Field trials
- Refine algorithm
- Finalize technical development

Thank you!

<https://aph-alarm-project.com/>



**LOIDL** CONSULTING  
& IT SERVICES GMBH



**INOVA+**



**evoAjo**

