SUITCEYES

Smart, **U**ser-friendly, **I**nteractive, **T**actual,
Cognition-**E**nhancer, that **Y**ields **E**xtended **S**ensosphere

Appropriating sensor technologies, machine learning, gamification and smart haptic interfaces

NEW POSSIBILITIES
FOR THE INCLUSION OF PEOPLE WITH DEAFBLINDNESS

3 YEARS 2018 2020

7 COUNTRIES

2.5 Million people with deafblindness in the European Union

OUR MOTIVATION

Communication is the main challenge for persons with deafblindness and there are few intelligent tools to facilitate communication and learning for this population.

OUR OBJECTIVE

The overall objective of SUITCEYES is to improve the level of independence and participation of persons with deafblindness and to enhance their communication, perception of the environment, knowledge acquisition, and conduct of daily routines.

DEAFBLINDNESS?

Is the combination of both sight and hearing impairments, where the level of impairments in either of these senses is too severe to allow compensation on the other*. It is often said that in the case of deafblindness, one plus one equals three. This implies that the severity of communication problems is greatly increased for this group, preventing access to communication, people, and the environment.

*This formulation is a translation of the definition by Förbundet Sveriges Dövblinda.

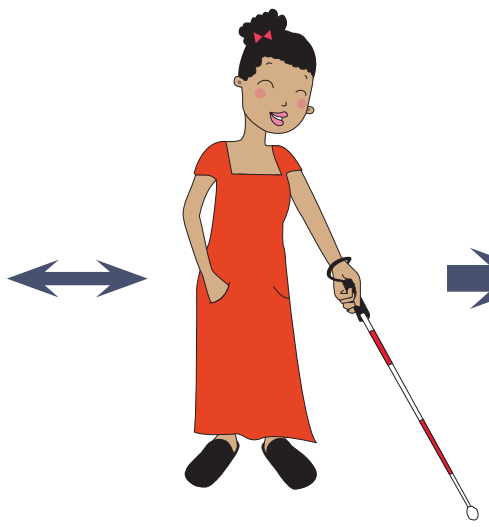
By using sensors, face and object recognition, and other Internet of Things technologies, information about the surroundings will be captured and communicated to the user via a haptic interface based on smart textiles. We call this interface the **HIPI: Haptic Intelligent Personalised Interface!**

OUR APPROACH : user-centered design

Perception of the environment

Haptic communication

Gamified learning and mediated social interaction



Haptic
Intelligent
Personalised
Interface

Extensive interviews with people with deafblindness, policy analysis and prototype testing will help us to better understand the **needs** and **challenges** of designing **technological solutions**.

WHO WE ARE

The SUITCEYES consortium consists of five European research institutions, a partner from industry producing cutting-edge and flexible solutions for people with disabilities and a non-profit organisation that creates tactile illustrated books for visually impaired children. The respective areas of expertise of this group have been specifically brought together to meet the demands and objectives of this project.

HÖGSKOLAN I BORÅS
UNIVERSITY OF LEEDS
Hochschule Offenburg offenburg.university
HARPO
Les Doigts Qui Rêvent
TU/e EINDHOVEN UNIVERSITY OF TECHNOLOGY
CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS

SUITCEYES MILESTONES

- **January 2018** — Project kickoff
- **December 2018** — Definition of personas, environments and use scenarios
- **June 2019** — First generation prototypes available and tested
- **December 2019** — Second generation prototypes available and tested
- **October 2020** — Third generation prototypes available and tested
- **December 2020** — Project completion

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 780814.

WANT TO FOLLOW THE PROJECT?

www.suitceyes.eu