What is next ?

We continue to work on integrating the different components of the HIPI into a third-generation prototype to be tested by project participants

WANT TO FOLLOW THE PROJECT?

www.suitceyes.eu

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.

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

Creating smart textiles and technologies to assist people with deafblindness

SUITCEYES

Smart, User-friendly, Interactive, Tactual, Cognition-Enhancer, that Yields Extended Sensosphere

"HIPI"

Haptic Intelligent Personalised Interface:

Smart textile garment that conveys environmental information to a person with deafblindness through haptic signals to enhance navigation and social interaction.

1

Learning from users:

After interviewing people with deafblindness and experts, we have analysed their needs and considered the potential scenarios where they could benefit from technology. This was crucial to inform the project's direction.

2

Playing and learning:

Aiming to offer a constructive experience to HIPI users, gamified scenarios are being tested for joyful learning about navigation and social interaction.

3

Sensor technology:

Objects, people and environmental cues are detected using sensor systems (camera, ultrasonic sensor, laser scanner and iBeacon sensors). Information is semantically analysed to identify people and objects, guide users in indoor navigation and avoidance of obstacles.

4

Translating information into vibration signals:

Design of vibration "haptograms" with participants, based in social-haptic communication. These haptograms are being tested to convey environmental information to users.

How does the HIPI assist people with deafblindness?

- **Navigation and obstacle avoidance**
- **Visual recognition of people and objects**
- **Information of surroundings conveyed via vibration haptograms**
- **Gamified scenarios to joyfully learn to use the HIPI**

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