SUITCEYES

1 Jan 2018 - 31 Dec 2020

Smart, User-friendly, Interactive, Tactual, Cognition-Enhancer, that Yields Extended Sensosphere
Appropriating sensor technologies, machine learning, gamification and smart haptic interfaces

[D8.4]

Define the project identity III

Courtesy of LightHouse for the Blind and Visually Impaired, see http://lighthouse-sf.org

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Dissemination level		
PU	PUBLIC, fully open, e.g. web	X
CO	CONFIDENTIAL, restricted under conditions set out in Model Grant Agreement	
CI	CLASSIFIED, information as referred to in Commission Decision 2001/844/EC.	

Deliverable Type		
R	Document, report (excluding the periodic and final reports)	
DEM	Demonstrator, pilot, prototype, plan designs	
DEC	Websites, patents filing, press & media actions, videos, etc.	X
OTHER	Software, technical diagram, etc.	

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Lead member	Mauricio Fuentes

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v0.2	2019-02-15	First draft for internal review	Mauricio Fuentes/LDQR
v0.3	2019-03-08	Second draft addressing review comments submitted to HB	Mauricio Fuentes/LDQR
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Glossary	
Abbr./ Acronym	**Meaning**
SUITCEYES	Smart, User-friendly, Interactive, Tactual, Cognition-Enhancer, that Yields Extended Sensosphere Appropriating sensor technologies, machine learning, gamification and smart haptic interfaces
LDQR	Les Doigts Qui Rêvent
HARPO	Harpo Sp. z o. o.
HB	Högskolan i Borås
HSO	Hochschule Offenburg
UNIVLEEDS	University of Leeds
Dx.y	Deliverable number y from work package x
GA	Grant Agreement
WCAG 2.1	Web Content Accessibility Guidelines 2.1

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1. Executive Summary

In the Grant Agreement (GA), the set of deliverables titled *Define the project identity (I to VI)* is set to deliver various templates to be used by the project members and an information package to be updated every 6 months. In previous versions (D8.2 *Define the project identity I* and D8.3 *Define the project identity II*) the visual identity package was presented, including the main templates and documents about the project's identity. In this version, D8.4 *Define the project identity III*, we aim to report on the insights and actions concerning how the SUITCEYES project has granted accessible information to the different target audiences.

After a short introductory section, this report presents a definition of accessibility, followed by a discussion of why the issue of accessibility becomes of importance considering the nature of this project and its stakeholders. Then different activities are presented to establish how SUITCEYES partners have addressed the accessibility requirements. Information is provided regarding the adaptation of the project's website, publicity materials and the measures taken during the interview process with people with disabilities. Also, the adapted visual identity package is presented.

This document concludes on the importance of the efforts undertaken to enhance the accessibility of the project's information. The SUITCEYES user-centred approach guided these efforts, leading to the reinforcement of the project's identity.

This deliverable is closely related to a prior document (D8.9 *Detailed dissemination plan)*, where dissemination methods were discussed according to the specific target audiences and different criteria to achieve an effective project awareness.

2. Introduction

In the Grant Agreement (GA), we have defined a series of deliverables titled *Define the project identity (I to VI)* so that the templates and information packages used within the project are revised on regular basis (every 6 months) and kept updated. In previous deliverables (D8.2 *Define the project identity I and D8.3 Define the project identity II),* different aspects of the project identity were presented. A visual identity package was created, including the project logo, document templates, a set of short informative catch phrases, publicity materials and guidelines concerning the use of the project's visual identity. These visual elements were used in other communication and dissemination channels such as specialised (LinkedIn, Research Gate) and general (Twitter, YouTube) social networks.

In the first two deliverables in this series, the focus was placed on the elements included in the information packs, and contents of the project website. Once the initial material was in place, efforts were directed at ensuring accessibility of material to the project's target audiences while addressing potential variations in their needs. To gain a deeper understanding of potential needs and communication challenges, the project members continue to learn more about the target audiences through different activities such as the construction of the Dissemination plan (D8.9), conducting interviews with people with deafblindness, dissemination of the publicity material, receiving feedback and further improving the project's website and information material, and more. A crucial step in our efforts has been to ensure information accessibility, both in order to strengthen our project identity and to comply with the user-centred design approach which is adopted in the project.

This deliverable, D8.4 *Define the project identity III*, aims to report on the insights and actions concerning how SUITCEYES has made efforts to provide accessible information to the different target audiences. The section "Accessibility within the project", reports on the website, social media, the project's publicity materials and the interview process with people with deafblindness. Updates on the visual identity package are also reported on in a separate section, and finally, the last section concerns the conclusions of this document.

Future versions of this deliverable (IV, V and VI) will also be driven by specific thematic content according to the needs and development of the project, such as: dissemination of results, new publicity materials and the evolution of the visual identity package among others.

3. Accessibility within the project

Accessibility has been largely discussed as a key concept in disability studies, although there is not a unique definition of the term[1]. From a legal point of view, it is considered essential to grant the same opportunities to all members of society to have access "to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public"[2]. Other approaches emphasise the person-environment relationship, understanding accessibility as "the encounter between the person's or group's functional capacity and the design and demands of the physical environment"[3].

Access to information and communication, in particular, is an important challenge for people with deafblindness, who encounter difficulties with interacting with others and participating in society. Although important solutions have addressed the sight and hearing impairments, they are not necessarily suitable for people with deafblindness to whom the double impairment prevents the compensation of one sense with the other. Deafblindness, understood as a disability in its own, includes persons with heterogenous characteristics: from congenital (impairment before the acquisition of language) to acquired conditions and deafblindness due to aging, illnesses, accidents etc. These different gradations of the impairment are associated with diverse needs that have to be met with different communication systems and technologies.

Concerning the SUITCEYES project, access to information and to communication is critical. In the context of an international collaboration between seven countries undergoing a user-centred approach to build a Haptic Intelligent Personalised Interface (HIPI), demands permanent interaction with different stakeholders[4], including persons with deafblindness, their family members and support groups, educators and their organisations. In this context, individual/group functional capacities of our target audiences encounter the particularities of each participant country (for example language, access and use of technology), arising challenges to disseminate and communicate project's information.

It is worth reemphasizing that the level of deafblindness varies among people, from profound deafness and profound blindness at one end of the spectrum to varying levels of residual sight or hearing or both at the other end. While residual sight and hearing may be very limited, it is possible, in some cases, to tap into these resources and take advantage of the abilities that remain. In the process of creating the projects website, the publicity materials, conducting project presentations and the

[1] Iwarsson, S. and Stahl, A. (2003) Accessibility, Usability and Universal Design—Positioning and Definition of Concepts Describing Person-Environment Relationships. Disability and Rehabilitation, 25, 57-66.
[2] Convention on the Rights of Persons with Disabilities (CRPD), New York, December 2006, United Nations Treaty, available from: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html.
[3] Iwarsson, S. and Stahl, A. (2003) Accessibility, Usability and Universal Design—Positioning and Definition of Concepts Describing Person-Environment Relationships. Disability and Rehabilitation, 25, p61.
[4] In D8.9 *Detailed dissemination plan* three target audiences were defined: Interest-group community, Academic community and Industry sector.

interviews with persons with deafblindness in different countries, communicating accessible information[5] became central. We take the opportunity to report about these efforts in this deliverable and share some lessons learned in the process.

3.1 Webpage

The website was launched quite early in the life of SUITCEYES aiming to have an early project's awareness even before the project kickoff symposium. Later in the process, much work was put into the site concerning its structure and updates. The initial website design was also revisited to comply with the latest version of the Web Content Accessibility Guidelines (WCAG 2.1). Special attention was paid to the following aspects to enhance accessibility:

- **Clear and simple structure of the website:** The site's sections and menus are easy to identify facilitating the users' experience and also making it easier to follow using screen reader software.
- **Larger font size than usual:** Having larger font size helps low vision users to access the information even without using the text enlargement options also available in the website.
- **High contrast:** Using the project's colour pallet[6], a high contrast was gained to enhance user experience especially for persons with low vision.
- **Alternative texts for each image:** Images in the website, that correspond to links to social media, logos of partners and others, have alternative texts to facilitate browsing using screen reader software.

To further enhance the site's accessibility, the Userway (https://userway.org/) widget was used. This widget features a compilation of accessibility tools (plugins), designed to facilitate navigation to all visitors without needing the previous installation of any additional software. In the down left corner of the site (Figure 1), a button gives access to the Userway widget, offering different possibilities such as:

- **Keyboard navigation:** This option allows users to reach all functionalities without needing a mouse. For example, access and move between menus, buttons and other controls using the Tab key.
- **Big cursor:** This option enlarges the size of the cursor to facilitate mouse navigation.

[5] By accessible information we mean information provided in formats that allow different users to access their content.
[6] Specific information about this is available in: D8.3 *Define the project identity II*.

- **Contrast:** It features three options to increase contrast between the text and images with the background: Dark contrast (black background), light contrast (white background) and inverted colours.
- **Bigger text:** This option enlarges font size. It includes four possible sizes.
- **Desaturation:** It turns all the contents into a scale of greys.
- **Highlight links:** By activating this function, all links (menus, links, buttons) are highlighted in yellow with a black background.
- **Legible fonts:** This option turns all the site's text into a legible font. In our site this option is not necessary as all texts are already in an easy to read font.
- **Screen reader:** It reads out loud all site's elements (text, links and images). It allows keyboard and mouse navigation.

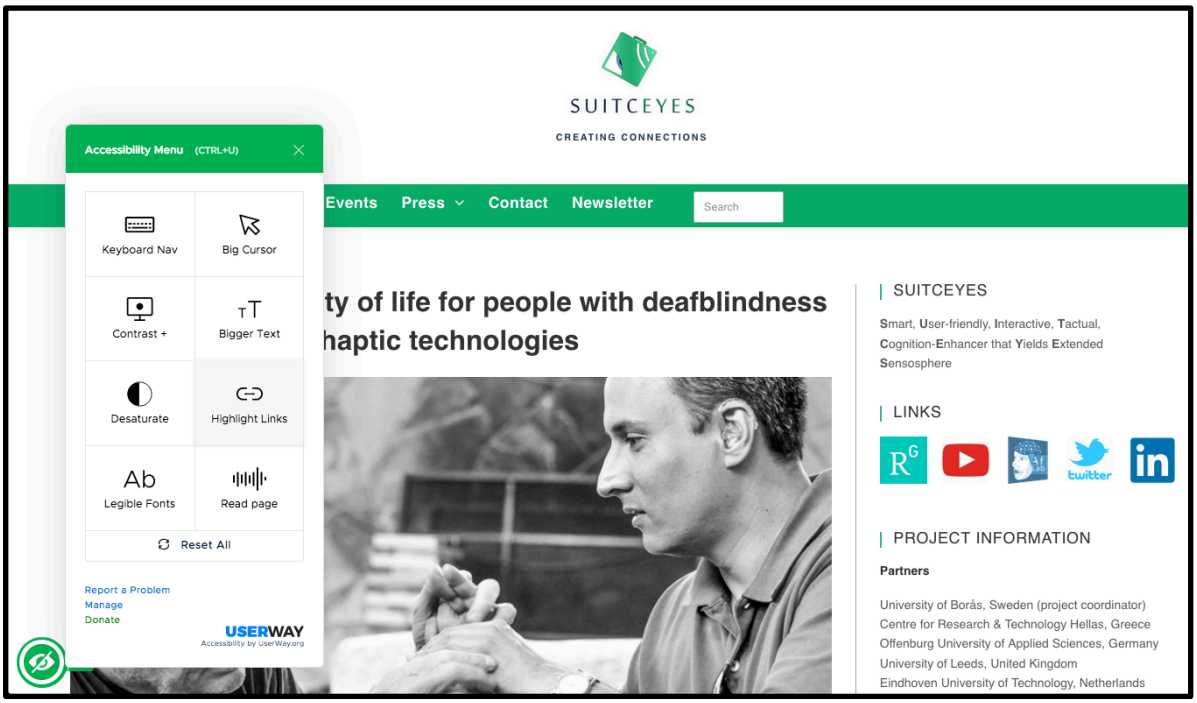


Figure 1. Accessibility widget available in the projects site. In the down left corner of the site, the Userway menu is available, featuring different options to facilitate access to the site's contents by different users.

3.2 Social media

After working on the accessibility of the website, the following criteria have been also established to enhance accessibility in our social media – Twitter and YouTube (Figure 2):

- All images will have alternative text description and videos will be enriched with captions and subtitles. When possible, transcriptions of video contents will be available.

- When including links, these will be shortened to facilitate screen reading. The Z platform from the University of Minnesota is being used for this purpose[7].
- When posting links to videos, pictures or audios, they will be announced using brackets and the following texts: [PIC] for picture, [VIDEO] for videos, [AUDIO] for audios. This facilitates also the use of screen reader software.
- In Twitter, most hashtags or mentions will be placed at the end, allowing screen readers to voice the main content without interruptions. When using composed or multiple word hashtags, capital letter will be used to facilitate reading (for example #SocialHapticCommunication instead of #socialhapticcommunication).
- Finally, screen reader software will be used to test contents before publishing to assure that the content is clear and easy to access with this software.

Figure 2. Example of a Tweet using some of the mentioned criteria: Shortened links, hashtags at the end, alternative text describing images.

3.3 Project's publicity material

Details on the design and creation of publicity material for the project was reported in D8.8 *Publicity material*. Using the accessibility tools of the software *Adobe Acrobat Pro DC*, the project's publicity materials were edited to augment their performance when using screen reader software. Although the changes are not visually apparent, important improvements were made regarding the structure of headings, the definition of figures and the alternative text of images describing the graphic contents. All sections and graphic elements of the publicity materials (flyer, leaflet and poster) are listed in the first column of the Table 1, presenting for each, the related content in text or image alternative text, accessible to screen reader users. Additionally, our project partner HARPO, expert in

[7] https://z.umn.edu/

assistive technologies, tested these materials and found them legible for screen reader users. Appendix 1 features these materials in PDF in accessible format.

During consortium and WP8 meetings, it was discussed the possibility of having publicity materials in other accessible formats, such as Braille, audio, large print or just plain text without images and boxes for a more effective use of screen readers, etc. A participant of the interview process (discussed in the next section) suggested to add a text in the publicity materials to inform the public that if needed, SUITCEYES could provide project information in accessible formats. Although the importance and pertinence of this initiative is well understood by all partners, it would imply translation of the materials to local languages and then the adaptation to different accessible formats accordingly to each individual's needs. This was not foreseen from the start of the project. Nevertheless, with the collaboration of all project partners, SUITCEYES will continue to explore future possibilities to respond to these demands, especially to disseminate project's results and achievements.

In the next section, important efforts made by partners to assure accessible information about the project to participants of the interview process are presented and discussed. These efforts express the partner's commitment to address this need.

Table 1. Accessible contents for screen reader users in the project's publicity materials.

Element or section title	**[Text] / [Image alternative text]**	Poster	Leaflet	Flyer
Logo/project name	[Image alternative text] Project logo with the acronym SUITCEYES that stands for Smart, User-friendly, Interactive, Tactual, Cognition-Enhancer, that Yields Extended Sensosphere.	X	X	X
Project subheading	[Text] Appropriating sensor technologies, machine learning, gamification and smart haptic interfaces.	X	X	X
Project catch phrases 1 (Poster title)	[Text] New connections for the inclusion of people with deafblindness.	X	X	X
Illustration (General facts about the project)	[Image alternative text] Illustration showing basic information of the project. Project duration of 3 years, from 2018 to 2020. 7 partners from 7 different countries. Addressed population, 2.5 Million people with deafblindness in the European Union.	X	X	X
Our motivation	[Text] Communication is the main challenge for persons with deafblindness and there are few intelligent tools to facilitate communication and learning for this population.	X	X	
Deafblindness?	[Text] Deafblindness is the combination of both sight and hearing impairments, where the level off 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, implying that the severity of communication problems is greatly increased for this group, preventing access to communication, the environment, and people. *This formulation is a translation of the definition by Förbundet Sveriges Dövblinda.	X	X	
Our objective	[Text] 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.	X	X	X
Illustration (a researcher)	[Image alternative text] Illustration of a researcher holding a magnifying glass.	X	X	X
Researcher's bubble speech	[Image alternative text] By using sensors, face and object recognition, and other IoT 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!	X	X	X

Illustration (Women with deafblindness)	[Image alternative text] Illustration of a women with deafblindness holding a red and white striped cane.	X	X	X
Our approach: user-centred design	[Image alternative text] Our approach: user-centred design. We aim to create a Haptic Intelligent Personalised Interface acronym HIPI. We will combine technologies that allow perception of the environment, haptic communication, and gamified learning and mediated social interaction. Also, 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.	X	X	X
Impact	[Text] - **Person with deafblindness:** Improved perception, communication, life experience, and participation in social life - **Families of persons with deafblindness:** Better communication with their loved ones - **Educators and care-providers:** Less translation efforts and more time to focus on more qualitative engagements - **Society at large:** Increased social inclusion of persons with deafblindness who can find employment, earn a living, and require less care		X	
Who we are	[Text] 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. [Official logo of each partner]	X	X	X
Milestones	[Image alternative text] Project milestones. Illustration of a timeline showing the following 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	X	X	X
Want to follow the project?	[Text] www.suitceyes.eu	X	X	X
Social network's logos	[Image alternative text] Project's social networks, logo of Twitter, YouTube and ResearchGate.	X	X	X
Partner's logos	[Image alternative text] Partner's logos: • University of Borås, Sweden (project coordinator) • Centre for Research & Technology Hellas, Greece • Offenburg University of Applied Sciences, Germany • University of Leeds, United Kingdom • Eindhoven University of Technology, Netherlands • Dreaming Fingers, France • Harpo Sp. z o.o., Poland	X	X	X
European Union's logo and funding information	[Image alternative text] European Union's logo. This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 780814.	X	X	X

3.4 Accessibility of information in the conduct of interviews

As part of the WP2 activities, interviews were carried out with persons with deafblindness in five (academic partner) countries in order to establish current practices, aspirations and unmet needs in

social engagement, mobility and barriers and enablers to technology use. Detail on the best practices to engage people with deafblindness in research initiatives, and the lessons learned by project partners while conducting the interviews are reported in D2.3 *Best practice recommendations for engaging deafblind participants in research*.

This process demanded accessible information during the call for participants, before the interviews and while conducting the interview. Table 2 shows the different activities and material developed for each moment of the interview process.

Table 2. Making information about the project accessible during the interview process.

Call for participants	**Before the interview (Consent form)**	**During the interview**
- Invitation to participate using general channels such as Twitter (English) - Local invitations in each country using local language (English, German, Dutch, Greek, Swedish) - Local invitation where disseminated through different channels, such as: websites and newsletters of related national organisations and direct invitations via e-mail, within others.	- Consent form and questionnaire in local languages (English, German, Dutch, Greek, Swedish) and other accessible formats on demand by interviewees (audio, Braille, large print, plain text) - In some cases, consent form and questionnaire were adapted to easier formulation for people with cognitive impairments - It was agreed on the necessary conditions to conduct the interview with each participant, such as the presence of an interpreter/assistant and method of interview (face to face, Skype call, telephone, mail…)	- Conducting the interview according to the necessary conditions agreed with the interviewee - Interpretation/assistance by caregivers and interpreters who were often present during interviews

During the interview process, regular meetings were held with the teams of each country developing the interviews. This allowed to share experiences and lessons that were useful to all partners. For example, although it was decided for the project to use the term “person with deafblindness” to refer to one of our target audience, in the United Kingdom this community prefer to be referred as “deafblind people”. That is why the UK call for participants and project documents were edited to include this terminology. This is an example of adaptation of the project’s information to respect local cultural representations.

Also, in the UK, the information of the project was sent to potential participants in audio format as a general accessibility measure. If requested by the interviewees, the consent form was also available in this format. In other countries these documents were available in print or Braille. In the Netherlands, documents were available in Braille but none of the interviewees asked for the information in this format. In the end, each country adapted the information about the project

(general information, invitation to participate and consent form) according to each context and sometimes at the request of individual participants.

Most countries reported on the importance of making the project information accessible from a cognitive perspective, meaning that sometimes the information presented, or the questions asked, needed further explanation to assure that they were fully understood by participants. Researchers found that better and more effective communication was reached when an interpreter or someone of trust that knew well the participant was present to assist in the communication process. Even more, this was reported as the only possible way to enable a communication with participants in Germany.

4. Update visual identity package

The following table reports on the updates on the visual identity package. For this version the main update concerns the publicity materials that were edited into accessible pdf format, tested for screen readers and voice over.

Table 3. Visual identity package and updates

Element	Description	Format	Date of last update (DD/MM/YY)
Logo (Standing format)	Full colour logo in standing format	.png .pdf	
Logo (Horizontal format)	Full colour logo in horizontal format	.png .pdf	
Deliverable template	Full colour template including front page, title styles and typography	.docx	21/09/2018
Letter sheet template	Full colour template including headed page, title styles and typography	.docx	02/08/2018
Presentation template	Full colour template including title slide, contents slide, final slide, title styles and typography	.pptx	06/08/2018
Poster A1	Full colour, digital and ready-to-print poster in A1 format (59.4 x 89.1 cm). Accessible format tested for screen reader software.	.pdf	15/02/2019
Poster A3	Full colour, digital and ready-to-print poster in A3 format (29.7 x 42.0 cm). Accessible format tested for screen reader software.	.pdf	15/02/2019
Leaflet	Full colour, digital and ready-to-print leaflet in A4 format (21.0 x 29.7 cm). Accessible format tested for screen reader software.	.pdf	15/02/2019
Flyer	Full colour, digital and ready-to-print flyer in A5 format (21.0 x 14.9 cm). Accessible format tested for screen reader software.	.pdf	15/02/2019
User manual of visual identity	Deliverable D8.3 *Project identity II* which includes the user's manual and other recommendations	.pdf	29/09/2018

5. Conclusions

Considering the diversity of the deafblind community and their different means of communication, the production of accessible materials about the project is a demanding task in terms of time and resources. Although it was not foreseen from the beginning of the project, SUITCEYES partners have learned from this challenge and have actively found alternatives to respond to the needs of accessible information of our target audiences, especially the persons with deafblindness.

Revisiting the definition of accessibility, as the encounter between the people's capacities and the design of the environment, SUITCEYES has made efforts to adapt its information and dissemination strategies to better meet the needs of people with deafblindness according to their context (e.g. language, self-determination, access to technology).

Driven by our user-centred approach, and considering the nature of the project, having accessible information about the project has been crucial. Accordingly, efforts have been taken to establish accessible information and good communication with the project's target group, persons with deafblindness and their families and support systems in the different countries. By this enhanced interaction the project's identity is further developed in two ways:

- It has strengthened awareness of the project, particularly within our main stakeholder community (people with deafblindness), and on the other hand,
- It has shaped a deeper understanding of the challenges and needs of this community within our diverse and multidisciplinary SUITCEYES team.

6. Appendix 1

Flyer

Full colour, digital and ready-to-print flyer in A5 format (21.0 x 14.9 cm). Accessible format tested for screen reader software.

Leaflet

Full colour, digital and ready-to-print leaflet in A4 format (21.0 x 29.7 cm). Accessible format tested for screen reader software.

Poster A1

Full colour, digital and ready-to-print poster in A1 format (59.4 x 89.1 cm). Accessible format tested for screen reader software.

Poster A3

Full colour, digital and ready-to-print poster in A3 format (29.7 x 42.0 cm). Accessible format tested for screen reader software.

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

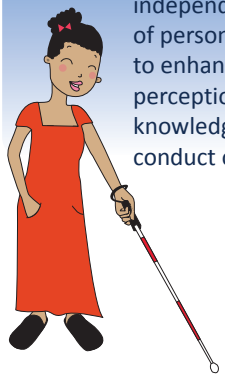
3 YEARS 2018 2020

7 COUNTRIES

2.5 Million people with deafblindness in the European Union

OUR 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.



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.

WANT TO KNOW MORE ABOUT THE PROJECT?
www.suitceyes.eu

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.

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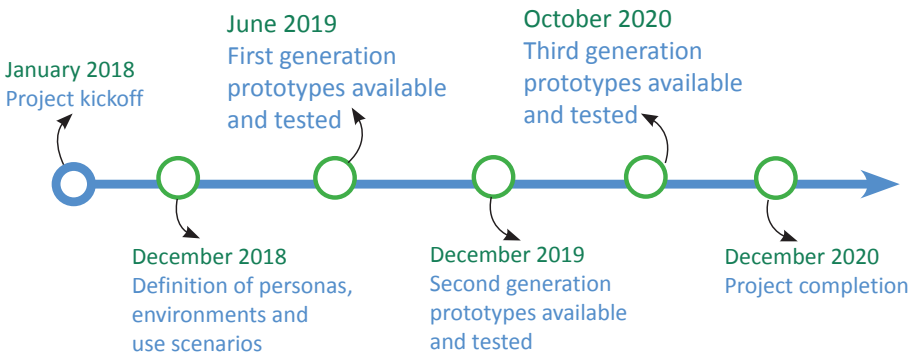
HARPO
UNIVERSITY OF LEEDS
TU/e EINDHOVEN UNIVERSITY OF TECHNOLOGY
CERTH CENTRE FOR RESEARCH & TECHNOL HELLAS

MILESTONES



WANT TO FOLLOW THE PROJECT?

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SUITCEYES

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NEW POSSIBILITIES

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2.5 Million people with deafblindness in the European Union

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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 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.

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**.

PROJECT IMPACTS AT VARIOUS LEVELS

Society at large: Increased participation and social inclusion of all members of society. This may include more active involvement and contribution to education and employment

Educators and care-providers: Less translation efforts and more time to focus on more qualitative engagements

Families of persons with deafblindness: Better communication with their loved ones

Person with deafblindness: Improved perception, communication, life experience, and participation in social life

SUITCEYES

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

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

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.

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.

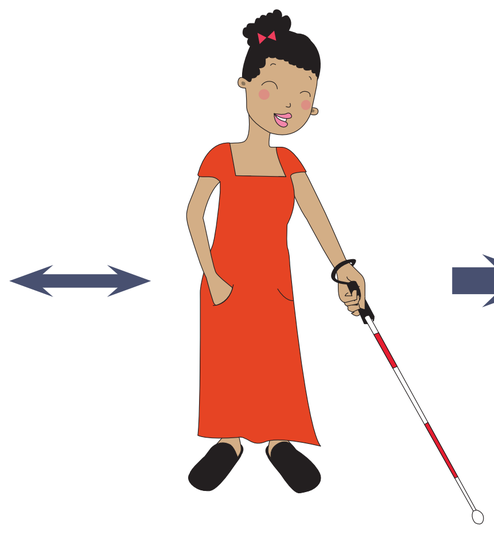
OUR OBJECTIVE

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.

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

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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
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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
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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.

WANT TO FOLLOW THE PROJECT?

www.suitceyes.eu

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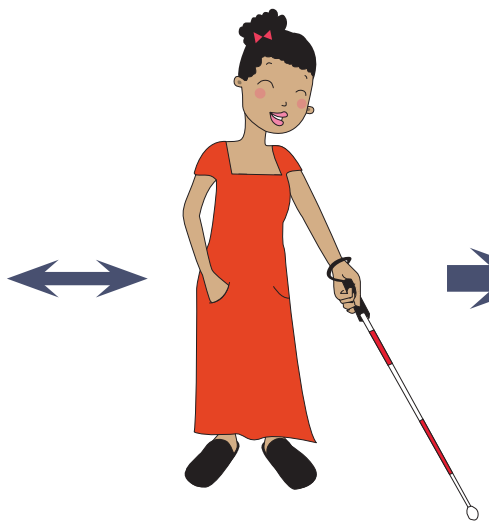

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