



# SUITCEYES

1 Jan 2018 - 31 Dec 2020

---

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

[8.1]

## The Project Website

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



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 780814.

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

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

Deliverable details	
<b>Deliverable number</b>	D 8.1 [D37]
<b>Part of WP</b>	Part of WP 8
<b>Lead organisation</b>	HSO
<b>Lead member</b>	Oliver Korn

Revision History			
V #	Date	Description / Reason of change	Author /Org.
<b>v0.1</b>	2018-02-07	Structure proposal	Tomasz Rozwalka/Harpo
<b>v0.2</b>	2018-02-08	First draft for internal review	Lea Buchweitz/ HSO
<b>v0.3</b>	2018-02-12	Second draft addressing review comments submitted to HB	Lea Buchweitz/ HSO Nasrine Olson/ HB
<b>v0.4</b>	2018-02-23	Final draft after PC's comments	Lea Buchweitz/ HSO
<b>v1.0</b>	2018-02-27	Final draft submitted to the EU	Nasrine Olson / HB
<b>v1.1</b>	2019-12-16	Revised version submitted to HB	Lea Buchweitz / HSO
<b>v1.2</b>	2019-12-19	Revised version submitted to the EU	Thomas Bebis / HB

Authors	
Partner	Name(s)
HSO	Lea Buchweitz
HSO	James Gay
HB	Nasrine Olson

Contributors		
Partner	Contribution type	Name
HARPO	Review	Tomasz Rozwalka
HB	Review	Nasrine Olson, Jonas Andersson, Jan Nolin, Elena Maceviciute, Thomas Bebis

Glossary	
Abbr./ Acronym	Meaning
D8.1	Deliverable 8.1 – Project website [deliverable number on participant portal = D37]
Deafblindness	Deafblindness is a combined vision and hearing impairment of such severity that it is hard for the impaired senses to compensate for each other. Thus, deafblindness is a distinct disability. (Nordic Welfare Centre)
HARPO	HARPO Sp. z o.o
HB	University of Borås
HSO	Hochschule Offenburg
SUITCEYES	Smart, User-friendly, Interactive, Tactual, Cognition-Enhancer, Yielding Extended Sensosphere Appropriating sensor technologies, machine learning, gamification and smart haptic interfaces
W3C	The World Wide Web Consortium
WP	Work Package
WP8	Work Package 8 – Dissemination, Knowledge-sharing & Exploitation

# Table of Contents

---

- Executive summary ..... 1
- Introduction and Rationale ..... 1
- Objectives with the creation of the website ..... 2
- Approach ..... 2
- Development ..... 3
- Components and Layout ..... 4
  - Home ..... 4
  - Menu Bar ..... 4
  - Project ..... 4
  - Project – About..... 4
  - Project – Work Packages ..... 4
  - Project – Glossary ..... 4
  - Stakeholders..... 7
  - Events ..... 8
  - Press ..... 9
  - Contact ..... 9
  - Newsletter ..... 12
  - Future pages and links..... 12
- Organisation ..... 12
- Statistics ..... 13
- Accessibility ..... 13
  - Website Audit..... 13
  - Remedial Action ..... 16
  - Twitter Plugin ..... 18
- Near Future Plans ..... 20

# Table of Figures

---

- Figure 1:** SUITCEYES-Logo..... 3
- Figure 2:** suitceyes.eu landing page ..... 5
- Figure 3:** Project – About ..... 6
- Figure 4:** Project - Work Packages..... 7
- Figure 5:** Partners are introduced ..... 8
- Figure 6:** Event's tab showing project related events..... 9
- Figure 7:** Publicity news ..... 10
- Figure 8:** Example of a news post with comment form ..... 11
- Figure 9:** Contact form for further questions and concerns ..... 12
- Figure 10:** Results of Web.dev website audit..... 14
- Figure 11:** Issues found through Web.dev audit..... 15
- Figure 12:** Results of website audit by WAVE ..... 16
- Figure 13:** Website audit by Web.dev after changes to website theme ..... 17
- Figure 14:** Results of website audit by WAVE after changes made to website theme..... 18
- Figure 15:** Twitter Feed embedded into the sidebar ..... 19
- Figure 16:** Web.dev audit of SUITCEYES landing page after Twitter plugin had been embedded ..... 19
- Figure 17:** WAVE audit results the use of the Twitter Plugin..... 20

# Table of Changes between v1.0 & v1.2

Section	Previous Text	New Text
Figures (Page 1 - 20)		Updated screenshots of website showing the new theme.
Executive summary (Page 1)	Unchanged	This deliverable includes a section [...] that improves navigation of the website.
Menu Bar (Page 4)	There are currently a number of options [...] a Search field (Fig. 2).	There are currently a number of options [...] and CONTACT (see Figure 2).
Stakeholders (Page 7)	Partners	Stakeholders
<p>The “Partners” section has been renamed “Stakeholders”, and is split into three subcategories: <b>Project Partners</b>, <b>Project Boards</b> and <b>Network</b>.</p> <p>The <b>Project Partners</b> page introduces the members of the SUITCEYES consortium. Each partner is presented with their logo and background information stating their role in the project. An email address to a contact person at the respective partner is also provided (Fig. 5).</p> <p>The <b>Project Boards</b> page lists the various boards that are involved in the project. These are: Project Management Team, Project Management Board, Project Advisory Board, Ethics Advisory Board, User Data Working Group and Analytical Data Working Group. Members of each respective board are listed with surname, name and their email address. The Project Management Board</p>	(Original unchanged)	Posts in this section are grouped [...] that are relevant to them.

<p>section also includes a short biography of each member.</p> <p>Anchor links at the top of the page enable a user to quickly jump to the heading of the given board.</p> <p>The <b>Network</b> page has been added to the website since the first submission of this deliverable. This page includes organizations that the project has cooperated with since its launch. These organizations are grouped by country and include their logo, a brief description of their tasks, an email address and a link to their website.</p> <p>All names and organizations listed in these three sections have given us written approval to name them on the project website.</p> <p>Events (Page 8)</p>		
Press (Page 9)	Publicity	Press
Press (Page 9)	(Original unchanged)	In keeping with the Events section [...] to allow posts to be found more easily.
Future pages and links (Page 12)	(Original unchanged)	The sidebar serves as a place [...] conferences and symposiums.
Organisation (Page 12)	To provide a flexible, up-to-date and interesting website [...] and up to date because every partner can add content, news and posts at any time.	Proceeding from discussion during online meetings [...] is responsible for integrating it into the website.
Accessibility (Page 13)	(Original unchanged)	Following an examination of the website [...] to address them.
Following an examination of the website using WAVE, a website evaluation tool, revealed various issues relating to accessibility.	(New section)	An expert web developer from HB [...] after these changes were applied.

<p>The following sections report on the issues identified, and on the steps taken to address them.</p> <p>Website Audit (Page 13)</p>		
<p>Remedial Action (Page 16)</p>	<p>(New section)</p>	<p>On the recommendation of the expert web developer from HB [...] their scores seeing a decrease and increase of 3 points respectively.</p>
<p>Twitter Plugin (Page 18)</p>	<p>(New section)</p>	<p>With the goal of keeping the landing page's content fresh and dynamic [...] we will continue utilizing this plugin.</p>
<p>Near Future Plans (Page 20)</p>	<p>The project website will remain dynamic throughout the project [...] and interact with our external audience.</p>	<p>The project website will remain dynamic throughout the project [...] This issue will be addressed in the upcoming weeks.</p>

# Executive summary

The **Project Website** is the first deliverable in the project SUITCEYES and can be accessed at this URL: [suitceyes.eu](http://suitceyes.eu).

This document is written as a complement to the deliverable and reports on the creation of the first release of the website. It provides an overview of the different subsections of the website as well as describe our approach and thinking behind the design of the website.

The project website is seen as a key external communication channel for the project. The project website is intended to be dynamic and able to adapt to emerging needs. It currently provides information about the project, it is used as a channel to inform about the project results as well as related events and activities, it allows contact and feedback from potential audiences, it links to other related resources and websites, and by adopting the same colour pallet and design scheme as the rest of project communications, it establishes a strong connection between communicative products of the project. Accessibility and inclusion are key consideration that will guide future updates and further improvement of the design and features of the website.

This deliverable includes a section on a website audit that was conducted with the aid of an external expert web developer, and describes how to resolve the issues that were identified.

Furthermore, this document contains an amended plan for integrating content, outlines additional steps taken to enhance the presentation of dissemination activities and the project's stakeholders.

The outcome of this deliverable is a website optimized in terms of accessibility and provide a structure streamlined to enhance website navigation.

## Introduction and Rationale

The SUITCEYES project aims to primarily create improved communication possibilities for people with deafblindness. There are, however, a number of other thoughts that are also at the core of the project, including the ambition to raise awareness and help create better societal structures that would facilitate the life and learning of the target group. This means that we intend to utilize multiple avenues for communication with and informing related stakeholders about the progress and the outcomes of the project. The stakeholders in this case extend over a broad range, from the people with deafblindness to their families, support groups, supporting organizations, policy makers, decision makers and the general public. The project website is a key channel in reaching these groups and hence it plays a role in achieving some of our objectives.

The idea behind the design of the website has been to be informative, clear, self-explanatory, and adaptable. The initial contents are those required at the initial stages of the project. However, we intend to adapt the design and to expand the contents as the project evolves and new insights about the audiences and user expectations/ needs emerge.

## Objectives with the creation of the website

There are a number of objectives related to the development of the website. The website is intended to be the main external and public communication channel for the project. As such it needs to allow the publication of general information about the project, its progress, and its results. It also needs to allow us to reach out with information about the events and activities that we organize. Furthermore, it needs to enable networking with those who may find SUITCEYES of some relevance and allow communication and feedback from the potential website audiences. The website should also convey a coherent feel and look that can easily be associated with the project brand. Finally, the ability to grow and be adapted, clarity of contents, intuitive structure, accessibility, and inclusion form further objectives of the website design.

## Approach

With the above in mind, the components of the website have been designed to meet these objectives. Towards this, our approach has been to conduct a scanning and review of similar projects' websites followed by brainstorming, discussions, and iterative internal reviews of the initial design.

A main consideration has been to use a common and open tool, easily accessible to project members, to enable easy and timely update of different contents by relevant members when needed. Accordingly, the general structure of the website is developed and maintained by the partner organization HSO, while other members are given editorial access for adding content and potential adjustments when needed.

A second consideration has been to design the website in a way that allows growth and adaptation as the project evolves. Additional tabs and menu items have been considered and will be added as contents become available and needs arise.

Inclusion is a core principle in the project; SUITCEYES welcomes and support people of all backgrounds, identities, and any mental and physical ability. Inclusion as a value is something that we strive for in all aspects of the project including, but not limited to, the design of the website. The website, therefore, already meets with some standards and will evolve to improve the accessibility of the contents even further.

The project website will remain dynamic and adaptable to emerging insights and needs throughout the project.

# Development

Table 1: Website production details

<b>Partner responsible for creating the website</b>	Hochschule Offenburg
<b>Authors: The website</b>	Lea Buchweitz (HSO), Adrian Rees (HSO)
<b>Authors: Website contents</b>	Lea Buchweitz (HSO), Nasrine Olson (HB)
<b>Review and editorial contributions</b>	All partners
<b>Website URL</b>	<a href="http://suitceyes.eu">suitceyes.eu</a>
<b>Tool used</b>	WordPress (Wordpress.org)

Already during the formulation of the proposal, the project had established a general feel and look for the project communications by developing related logos and a colour scheme. These design considerations were captured and reinforced in the design of the website. That is, the green and blue colour pallet used in the project logos (Fig. 1) is also reflected in the colour scheme of the website.



Figure 1: SUITCEYES-Logo

# Components and Layout

In this section the different subpages of the project website are presented and briefly described.

## Home

The landing page of the project website consists of a header with the project logo and a short slogan, a main menu with a number of menu options, a search field, and a static sidebar on the right-hand side, displaying the project name, external links (e.g. social media and other related websites), list of partners, and project volume and duration (see Fig. 2). On the home page a short summary of the aims of the project introduces the user to the website.

## Menu Bar

There are currently a number of options available on the menu bar comprising of HOME, PROJECT, STAKEHOLDERS, EVENTS, PRESS and CONTACT (see Figure 2).

## Project

There are currently three sub-options available under this drop-down menu as follows

### Project – About

Information about the background and the idea of the project is shown on the subpage “About” (Fig. 3).

### Project – Work Packages

As prescribed in the WP8, D8.1 for creating the website, each work package, its leader and the partner organisation are introduced (Fig. 4). For any further information needed by visitors, a contact person and the corresponding email address is provided for each WP leader.

### Project – Glossary

The Glossary will contain important terms and expressions which are used regularly in the context of the project and need to be unambiguously understood or require some additional explanation.

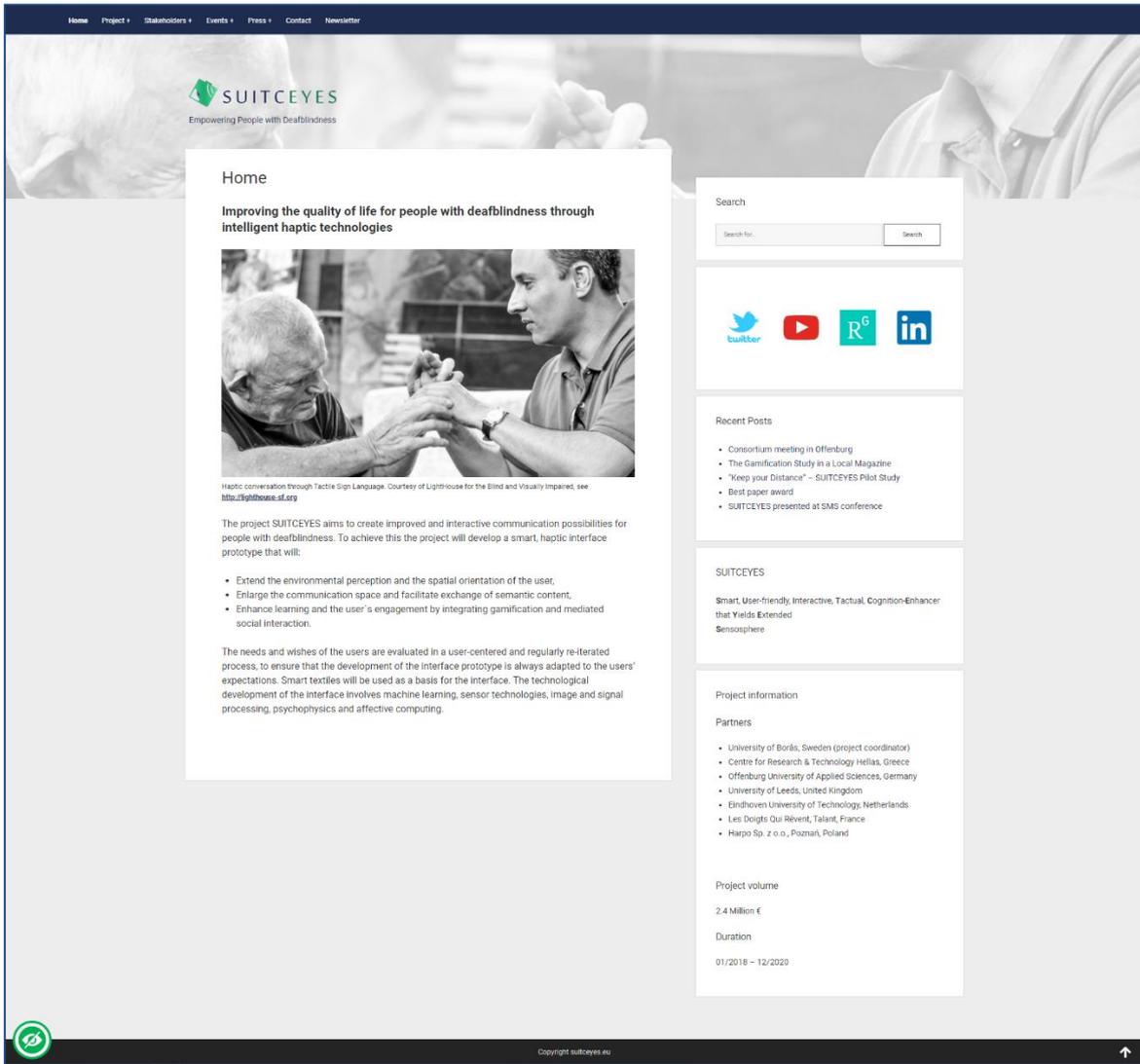


Figure 2: suitceyes.eu landing page

Home Project Stakeholders Events Press Contact Newsletter



## About

### What is SUITCEYES about?

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

### Deafblindness

Deafblindness – otherwise known as a dual sensory loss – refers to a unique combination of vision and hearing loss of such severity that it is hard for the impaired senses to compensate for each other (Dammeyer, 2014). Deafblindness is often defined in two different subgroups – congenital deafblindness and acquired deafblindness – due to their different development conditions. People with congenital deafblindness are born deaf or blind or became deaf or blind early in life before the development of language, while acquired deafblindness is labelled as “post-lingual deafblindness”. Individuals with deafblindness are restricted in their participation in society, due to difficulties in communication. Furthermore, accessing information and moving around freely and safely is restricted. These limitations lead to a high risk of social isolation and exclusion for individuals with deafblindness

### What is our aim?

SUITCEYES aims at combining and developing cutting-edge technologies and ICT tools to develop a haptic-intelligent personalized interface (“HIP”) which is based on sensor technologies, image and signal processing, psychophysics, smart textiles, semantic reasoning and affective computing. The project aims at (i) enhancing the localization awareness and environmental perception of the user (ii) extend and improve users’ modes of communication via a haptic interface. To promote and facilitate learning, as well as to capture and extend users’ interest and engagement, and (iii) incorporate gamification and mediated social interactions.

The project outcome is not limited to a technological solution. Extensive user studies are conducted to improve our understanding the actual needs of people with deafblindness and to inform the project and design and development decisions. The project also includes policy studies, in order to raise awareness and to facilitate informed policies and decision making.

### User Needs

We are linking the potential of the technology very clearly to the priorities of people with deafblindness. To discover more about user needs we carry out interviews with 75 people in 5 countries at the start of the project, asking them about their current situation, access to technology and priorities for the future. Interviewers include technology experts, allowing direct communication between users and designers, as well as interviewers experienced in qualitative research.

The project also includes policy studies, in order to raise awareness and to facilitate informed policies and decision making.

### Garments as a communication interface?

One idea is that the garment, acting as a smart interface, will transfer information to the bearers through haptic signals, and can, for example, tell the bearers if someone is looking at them or where the ball they dropped is in the room. But it is also possible to combine different sensors in the smart textile. Each sensor can address different perceptive channels, which enlarges the communication space.

### Possible extensions

Although the SUITCEYES prototype will be developed specifically for users with deafblindness, the application area of the prototype is not limited to this group. A system that affords improved perception of the surrounding environment, and allows an alternative (haptic) mode of communication can scale to multiple other application areas. There are many circumstances where a user lacks full reliance on the visual and auditory senses such as firefighting in smoke-filled rooms, rescue missions in dark and noisy environments, sports training and more.

### The project’s funding

#### Search




---



#### Recent Posts

- Consortium meeting in Offenburg
- The Gamification Study in a Local Magazine
- “Keep your Distance” – SUITCEYES Pilot Study
- Best paper award
- SUITCEYES presented at SMS conference

#### SUITCEYES

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

#### Project information

##### Partners

- 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
- Les Digits Qui Révent, Talant, France
- Harpo Sp. z o.o., Poznań, Poland

##### Project volume

2.4 Million €

##### Duration

01/2018 – 12/2020




Figure 3: Project – About

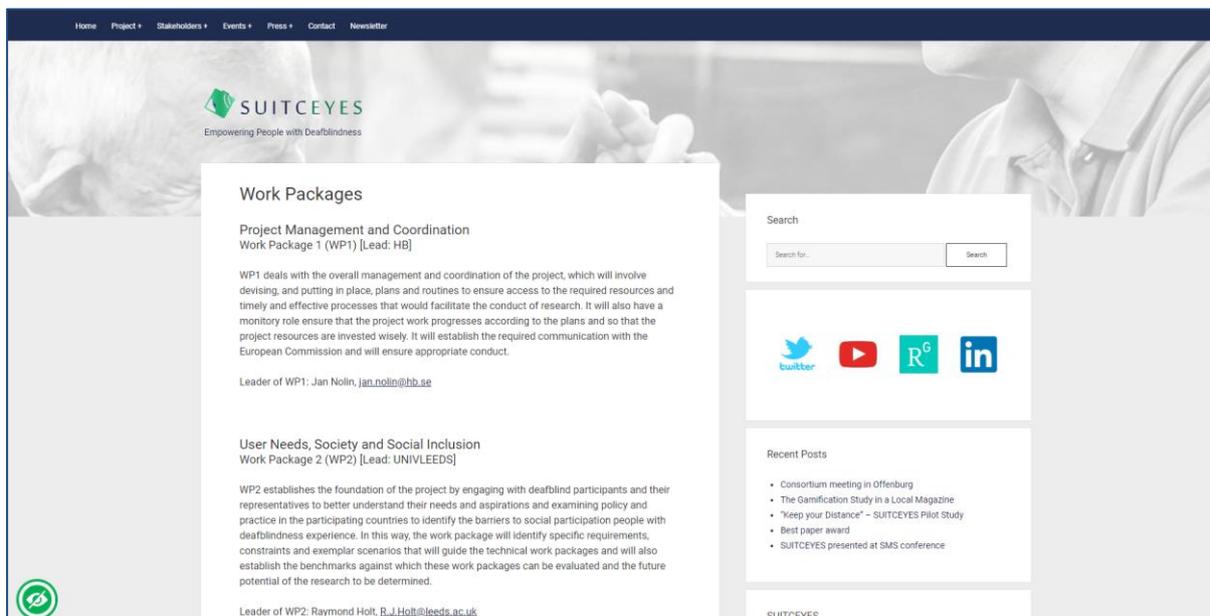


Figure 4: Project - Work Packages

## Stakeholders

The “Partners” section has been renamed “Stakeholders”, and is split into three subcategories: **Project Partners**, **Project Boards** and **Network**.

The **Project Partners** page introduces the members of the SUITCEYES consortium. Each partner is presented with their logo and background information stating their role in the project. An email address to a contact person at the respective partner is also provided (Fig. 5).

The **Project Boards** page lists the various boards that are involved in the project. These are: Project Management Team, Project Management Board, Project Advisory Board, Ethics Advisory Board, User Data Working Group and Analytical Data Working Group. Members of each respective board are listed with surname, name and their email address. The Project Management Board section also includes a short biography of each member.

Anchor links at the top of the page enable a user to quickly jump to the heading of the given board.

The **Network** page has been added to the website since the first submission of this deliverable. This page includes organizations that the project has cooperated with since its launch. These organizations are grouped by country and include their logo, a brief description of their tasks, an email address and a link to their website.

All names and organizations listed in these three sections have given us written approval to name them on the project website.

## Events

The Events' subpage is a blog page which offers information about the different events which take place in the context of the project (Fig. 6). For each event a post is added to describe the event and present potential related multimedia.

Posts in this section are grouped into the following subcategories:

- Academic Community
- Industry
- Professional Audience
- Persons Affected

These categories are easily accessed via the dropdown menu that has been added to the website. This will help stakeholders find the latest posts relevant to them.

The screenshot displays the SUITCEYES website's 'Project Partners' page. The header includes navigation links: Home, Project, Stakeholders, Events, Press, Contact, and Newsletter. The SUITCEYES logo is prominently displayed with the tagline 'Empowering People with Deafblindness'. The main content area is titled 'Project Partners' and contains the following information:

- Project Partners:** A paragraph describing the consortium of seven European partners, five from universities and research institutes, and two non-academic partners: an SME working with assistive technologies for people with functional disabilities including deafblindness and a non-profit organisation providing haptic books and services primarily to children with blindness and deafblindness. Together they build a strong team and cover the broad range of expertise that is required for the conduct of this project.
- Partner Organisations:** A section featuring the logo and name of HÖGSKOLAN I BORÅS (University of Borås, Sweden (HB)).
- University of Borås, Sweden (HB):** A detailed paragraph about the university's role as the project's coordinating organisation, mentioning its 12,000 students and 700 employees, and its involvement in various educational programs. It also lists the university's expertise in Knowledge Organization, Semantic Representations, Social Media Studies, and Smart Textiles.
- Contact:** Nasrine Olson, [Nasrine.Olson@hb.se](mailto:Nasrine.Olson@hb.se) [Project Coordinator]
- CERTH:** The logo and name of the Centre for Research and Technology, Hellas, Greece (CERTH).
- Centre for Research and Technology, Hellas, Greece (CERTH):** A paragraph describing CERTH's status as a TOP-20 EU research center, its involvement in research in Informatics, Telematics, and Telecommunication Technologies, and its role in the SUITCEYES project. It also lists its expertise in Machine Learning, Image Processing, Object and Face Recognition, Semantic Web, and Ontologies.
- Contact:** Ioannis Kompatsiaris, [ikom@ati.gr](mailto:ikom@ati.gr)

On the right side of the page, there is a search bar, social media icons for Twitter, YouTube, ResearchGate, and LinkedIn, a 'Recent Posts' section with a list of articles, a 'SUITCEYES' section with a tagline, and a 'Project information' section with a list of partners and the project volume (2.4 Million €).

Figure 5: Partners are introduced

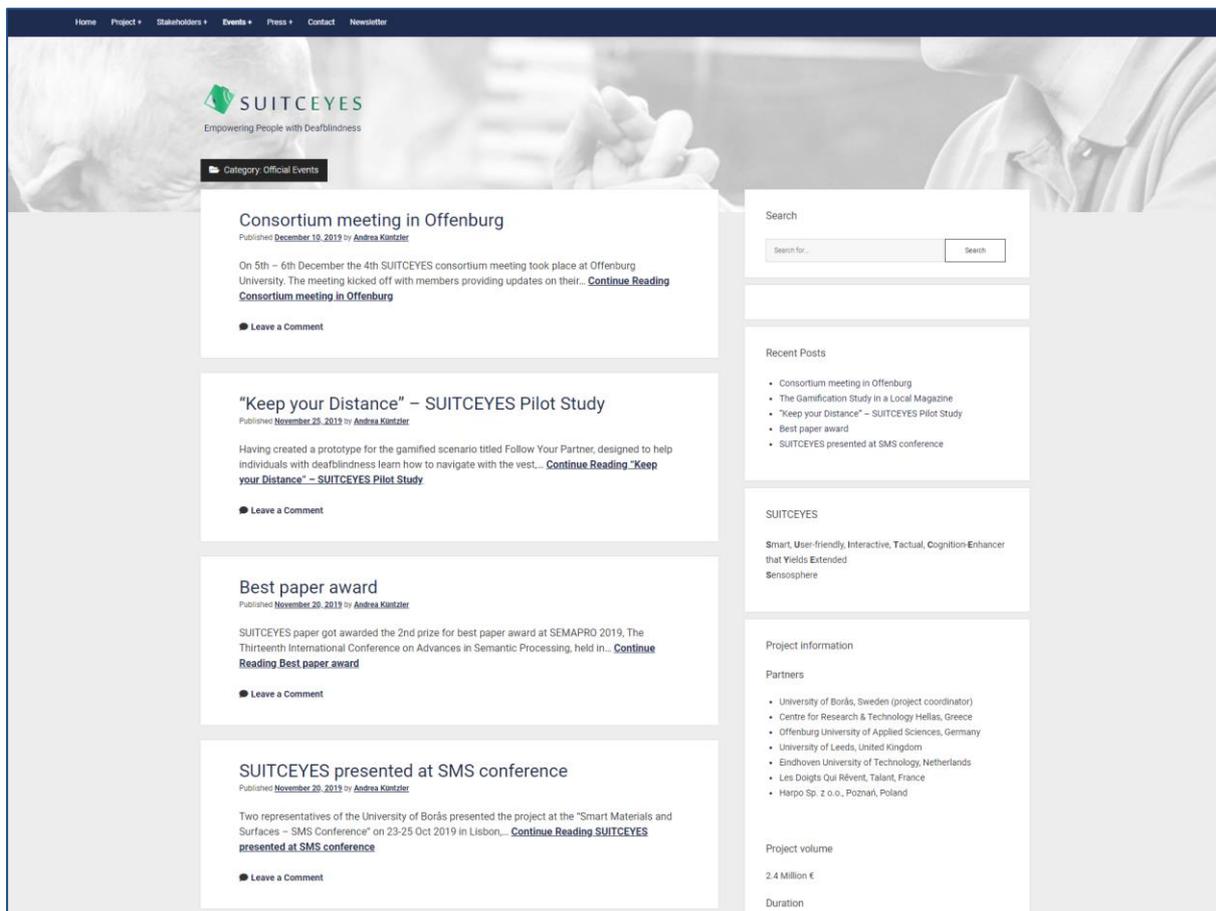


Figure 6: Event's tab showing project related events

## Press

This is another blog page, showing press releases, radio reports, interviews or television reports. If available, the link to the digital source of the news is added, to offer the possibility for further reading, hearing or watching (Fig. 7 and 8).

In keeping with the Events section, the posts have also been grouped into the categories (see **Error! Reference source not found.**) enabling posts to be found more easily.

## Contact

Visitors may contact the project coordinator and WP leaders using the email addresses provided in related pages but may also use a general contact form to ask any project related questions (Fig. 9). A message or question is forwarded to an email address which has been set up especially for the project. Any concern arriving at this email address is handled internally by the consortium, and an appropriate contact person will answer the concern as soon as possible. The field "I'm not a Robot" ensures that no bot can misuse this feature.

Home Project Stakeholders Events Press Contact Newsletter



Category: Publicity

### The Gamification Study in a Local Magazine

Published December 4, 2019 by Lea Buchwitz

The study on gamification, conducted in Germany, was documented in a local magazine of Paulinenpflege Winnenden e.V. If you are interested in further details, click... [Continue Reading](#)

[The Gamification Study in a Local Magazine](#)

● Leave a Comment

---

### SUITCEYES presented in Swedish magazine

Published October 21, 2019 by Lea Buchwitz

Our project has been presented in a Swedish magazine of the Association for Visual Rehabilitation. For more information, please see page 5 in the following .pdf document.

[Continue Reading SUITCEYES presented in Swedish magazine](#)

● Leave a Comment

---

### Canadian website Newatlas.com reports on SUITCEYES

Published August 15, 2019 by James Gay

SUITCEYES was featured on the Canadian news website newatlas.com where they have published their article "Haptic-feedback clothing designed to guide the deafblind". Click here to... [Continue Reading Canadian website Newatlas.com reports on SUITCEYES](#)

● Leave a Comment

---

### SUITCEYES project features on Cnbeta

Published August 15, 2019 by James Gay

Cnbeta.com informs its users on the SUITCEYES project in this article here.

● Leave a Comment

---

Search

Search for:

Search

---

Recent Posts

- Consortium meeting in Offenburg
- The Gamification Study in a Local Magazine
- "Keep your Distance" – SUITCEYES Pilot Study
- Best paper award
- SUITCEYES presented at SMS conference

---

SUITCEYES

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

---

Project information

Partners

- 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
- Les Dolgts Qui Révent, Talant, France
- Harpo Sp. z o.o., Poznań, Poland

---

Project volume

2.4 Million €

---

Duration

Figure 7: Publicity news

Home Project Stakeholders Events Press Contact Newsletter



## The Gamification Study in a Local Magazine

Published December 4, 2019 by [Lea Bachwitz](#)

The study on gamification, conducted in Germany, was documented in a local magazine of Paulinenpflege Winnenden e.V. If you are interested in further details, click [here](#) and see page 4.

Published in **Press, Professional audience and Publicity**

Previous Post: ["Keep your Distance" – SUITCEYES Pilot Study](#) | Next Post: [Consortium meeting in Offenburg](#)

**Leave a Reply**

Your email address will not be published. Required fields are marked \*

**Comment**

**Name\***

**Email\***

**Website**

Save my name, email, and website in this browser for the next time I comment.

This site uses Akismet to reduce spam. [Learn how your comment data is processed.](#)

**Search**

Search for:






**Recent Posts**

- Consortium meeting in Offenburg
- The Gamification Study in a Local Magazine
- "Keep your Distance" – SUITCEYES Pilot Study
- Best paper award
- SUITCEYES presented at SMS conference

**SUITCEYES**

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

**Project information**

**Partners**

- 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
- Les Dolgts Qui Révent, Talant, France
- Harpo Sp. z o.o., Poznań, Poland

Figure 8: Example of a news post with comment form

Figure 9: Contact form for further questions and concerns

## Newsletter

The 'Newsletter' tab allows stakeholders to (un)subscribe to a newsletter which summarizes the latest developments in the project.

## Future pages and links

As the project progresses, more tabs in the header menu bar will be added. For instance, a 'Video' tab giving access to videos produced for project purposes will be included into the main menu. Additionally, more social network links will be embedded in the sidebar, e.g., Twitter or Facebook.

The sidebar serves as a place on the website for dynamic content, for example, for displaying upcoming events, such as conferences and symposiums.

## Organisation

Proceeding from discussion during online meetings with members of the consortium, the following plan was agreed as a way of refreshing and updating website content.

HSO is responsible for sending out biweekly emails inviting the SUITCEYES consortium members to deliver any available content updates. Additionally, WP7 will work closely together with WP8, requesting members of the project to report on potential content updates, e.g., studies, events, publications etc. during monthly WP8 meetings. While every

member is responsible for generating content, i.e., writing articles themselves, HSO reviews any content submitted, and is responsible for integrating such into the website.

# Statistics

Recently, the website was added to GoogleAnalytics tool, which offers the opportunity to keep track of the traffic and some visitor statistics on the website. With this tool, the level of awareness of the project and the website as well as possible improvements in the design of the website or the communication and publicity in the project can be deduced.

# Accessibility

A special focus while creating the website was given to the accessibility of the content for people with special needs. This is due to the nature of the project, that this website is especially interesting for the user group of persons with visual and hearing impairments. The accessibility of the website was ensured by constructing it in a neat and clean concept and installing a plugin in WordPress which improves the accessibility of the website. Feedback from a blind Harpo’s team member, who used three most popular screen-readers to scan the website (Jaws™, NVDA™ and Supernova Magnifier and ScreenReader™), was taken into account. The consortium will take further efforts to guarantee the accessibility of the SUITCEYES website by following the Web Content Accessibility Guidelines (WCAG 2.0) of the W3C<sup>1</sup>.

Following an examination of the website using WAVE, a website evaluation tool, revealed various issues relating to accessibility. The following sections report on the issues identified, and on the steps taken to address them.

## Website Audit

An expert web developer from HB was approached with a view to helping HSO to conduct the website audit. On his recommendation, Web.dev was utilized in addition to the WAVE evaluation tool to examine the website.

Web.dev is an automated tool for improving the quality of websites. It uses the Lighthouse engine, an open-source tool owned by Google, that rates a given website by the following four categories:

Table 2: Lighthouse optimization categories

Category	Definition
Performance	Examines how quickly a website loads and how quickly users can access or view content
Accessibility	Examines how well a website can be used by persons with disabilities (e.g., tests on elements like buttons or links, checks if they are sufficiently well described)

<sup>1</sup> <https://www.w3.org/WAI/intro/wcag>

Best Practises	Examines security aspects of websites and modern standards of web development. Analyzes whether HTTPS and HTTP/2 are used.
Search Engine Optimization (SEO)	Examines how well a website can be crawled by search engines and displayed in the search results.

For each of these categories, Lighthouse returns a score between 0 and 100 with 0 being the lowest and 100 being the highest possible score<sup>2</sup>. Figure 10 and Figure 11 show screenshots of the audit conducted on the landing page before any action was taken to improve the website, and list identified issues by their impact on the respective category. Additionally, a guide is provided for each issue that tells a developer how to eliminate it.

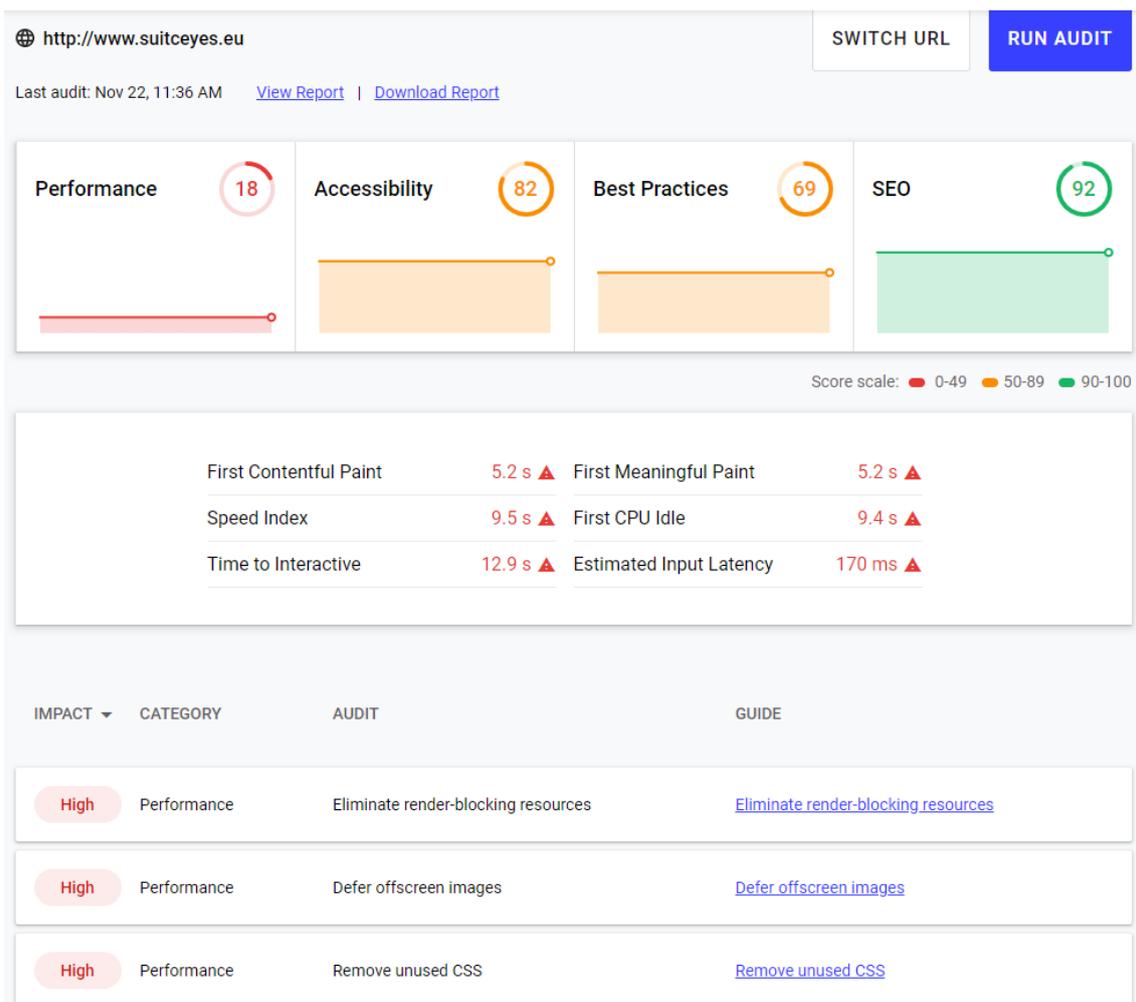


Figure 10: Results of Web.dev website audit

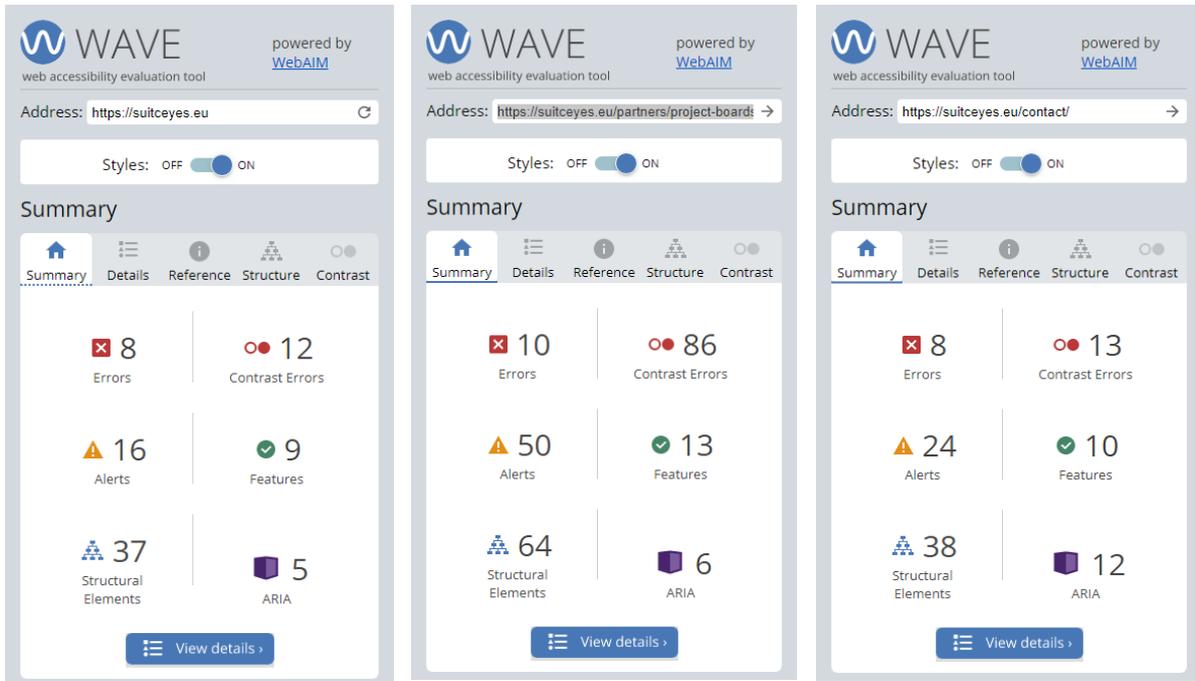
<sup>2</sup> <https://developers.google.com/web/tools/lighthouse/v3/scoring>

High	Performance	Serve images in next-gen formats	<a href="#">Serve images in next-gen formats</a>
High	Performance	Enable text compression	<a href="#">Enable text compression</a>
High	Performance	Avoid multiple page redirects	<a href="#">Avoid multiple page redirects</a>
High	Performance	Preload key requests	<a href="#">Preload key requests</a>
High	Accessibility	Buttons do not have an accessible name	<a href="#">Buttons do not have an accessible name</a>
High	Accessibility	Form elements do not have associated labels	<a href="#">Form elements do not have associated labels</a>
Medium	Performance	Efficiently encode images	<a href="#">Efficiently encode images</a>
Medium	Performance	Reduce server response times (TTFB)	<a href="#">Reduce server response times (TTFB)</a>
Medium	Performance	Reduce server response times (TTFB)	<a href="#">Reduce server response times (TTFB)</a>
Medium	Best Practices	Does not use HTTPS	<a href="#">Does not use HTTPS</a>
Medium	Best Practices	Does not use passive listeners to improve scrolling performance	<a href="#">Does not use passive listeners to improve scrolling performance</a>
Medium	Best Practices	Includes front-end JavaScript libraries with known security vulnerabilities	<a href="#">Includes front-end JavaScript libraries with known security vulnerabilities</a>
Medium	Best Practices	Displays images with incorrect aspect ratio	<a href="#">Displays images with incorrect aspect ratio</a>
Medium	SEO	Document does not have a meta description	<a href="#">Document does not have a meta description</a>
Low	Accessibility	Background and foreground colors do not have a sufficient contrast ratio.	<a href="#">Background and foreground colors do not have a sufficient contrast ratio</a>
Low	Accessibility	Links do not have a discernible name	<a href="#">Links do not have a discernible name</a>

**Figure 11:** Issues found through Web.dev audit

The results of the audit demonstrate that the website has serious issues related to *Performance* with a score of 18/100. *Best Practices* received a score of 69/100, whereas *Accessibility* and *SEO* show higher scores of 82 and 92 out of 100, respectively. Although accessibility issues do exist, the severity of these issues listed by Web.dev is less than expected, with issues being attributed to missing or insufficient descriptions relating to buttons and links, and to an insufficient contrast ratio between text and the background colour used.

For a comparison, we have utilized the WAVE Web Accessibility Evaluation tool on various pages of the SUITCEYES website. Figure 12 displays the outcome of this audit.



**Figure 12:** Results of website audit by WAVE. *Left:* Audit result of the landing page of the suitceyes.eu. *Middle:* Audit results of the “Project Boards” page of suitceyes.eu *Right:* Audit results of the “Contacts” page of suitceyes.eu

Conversely, Figure 12 shows that the WAVE tool finds numerous errors in relation to accessibility that Web.dev does not reveal, as the tool also evaluates website elements that are hidden through CSS. The “Project Boards” page exhibits a vast amount of contrast errors (see Figure 12 in the middle) that occur from white text being displayed on a green background and therefore do not meet the requirements set by WCAG 2.0<sup>3</sup>.

With both website audit tools exposing numerous accessibility issues, the next section looks at amendments made to the website to mitigate these issues and shows the results of website audits conducted by both Web.dev and WAVE after these changes were applied.

## Remedial Action

On the recommendation of the expert web developer from HB, we decided to change the currently used theme “OceanWP” to a theme titled “Period”. In contrast to OceanWP, Period is a WCAG compliant theme that has received the “accessibility ready” tag by the WordPress theme review team. This team internally reviews themes for WordPress based on accessibility according to WCAG. For us, this was a necessary step taken to mitigate various issues stemming from the OceanWP theme. The impact of changing the WordPress theme is demonstrated in Figure 13 and Figure 14 which show screenshots of website audits performed by Web.dev and WAVE.

<sup>3</sup> <https://www.w3.org/TR/WCAG21/#contrast-minimum>

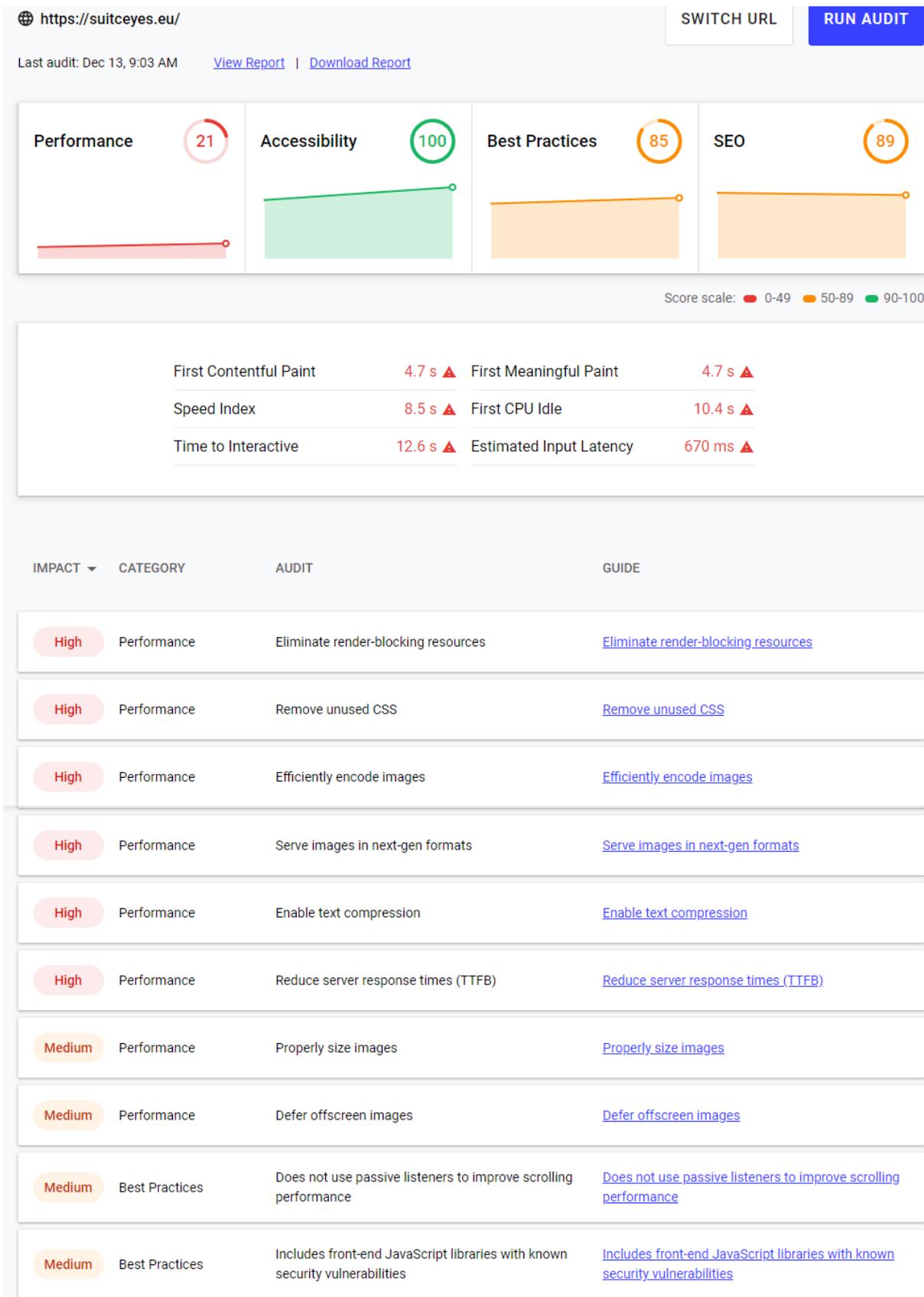
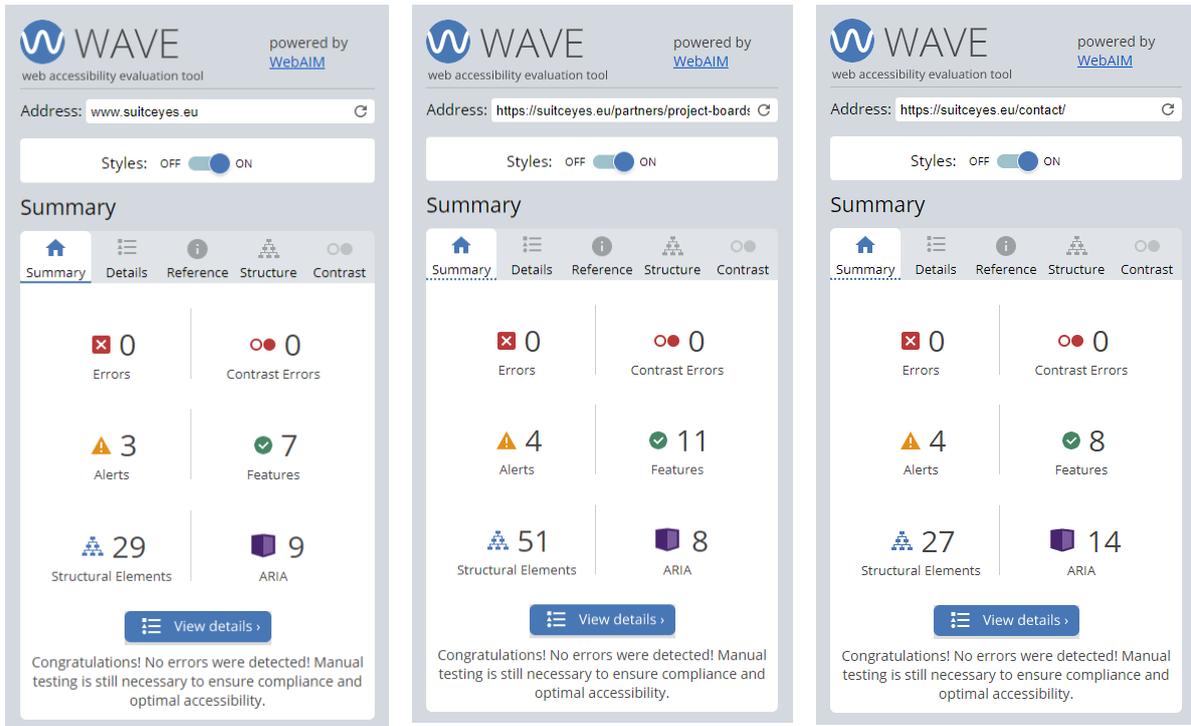


Figure 13: Website audit by Web.dev after changes to website theme



**Figure 14:** Results of website audit by WAVE after changes made to website theme. *Left:* Audit result of the landing page of the suitceyes.eu. *Middle:* Audit results of the “Project Boards” page of suitceyes.eu *Right:* Audit results of the “Contacts” page of suitceyes.eu

The results reveal that almost all accessibility issues could be eliminated by changing the theme with Web.dev showing a score of 100 out of 100, and the WAVE website evaluation tool finding just minor warnings (‘Alerts’). On closer inspection, various issues could be attributed to the shade of green that was used throughout the website. For this reason, we have decided to choose a shade of blue that is also present in the SUITCEYES logo that gives us the necessary colour contrast ratio that is required by WCAG 2.0. Furthermore, the Web.dev results show that the theme change had a positive effect on the *Best Practices* score by increasing by 16 points. Scores for *SEO* and *Performance* have deviated slightly with their scores seeing a decrease and increase of 3 points respectively.

### Twitter Plugin

With the goal of keeping the landing page’s content fresh and dynamic, we have embedded a plugin for WordPress into the sidebar that lets developers display Twitter feeds. Figure 15 shows a feed that lists tweets stemming from the ‘@suitceyes’ Twitter channel.

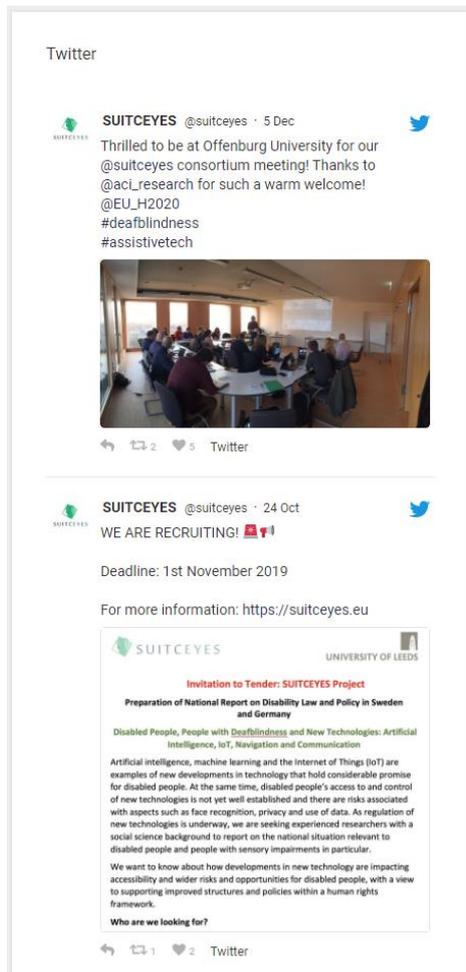


Figure 15: Twitter Feed embedded into the sidebar

For accessibility reasons, we conducted a further website audit using both Web.dev and WAVE to analyse, whether including the plugin affects accessibility. Figure 16 and Figure 17 show the results of this audit that re-evaluates the website with the inclusion of the Twitter plugin after all accessibility issues had been eliminated.

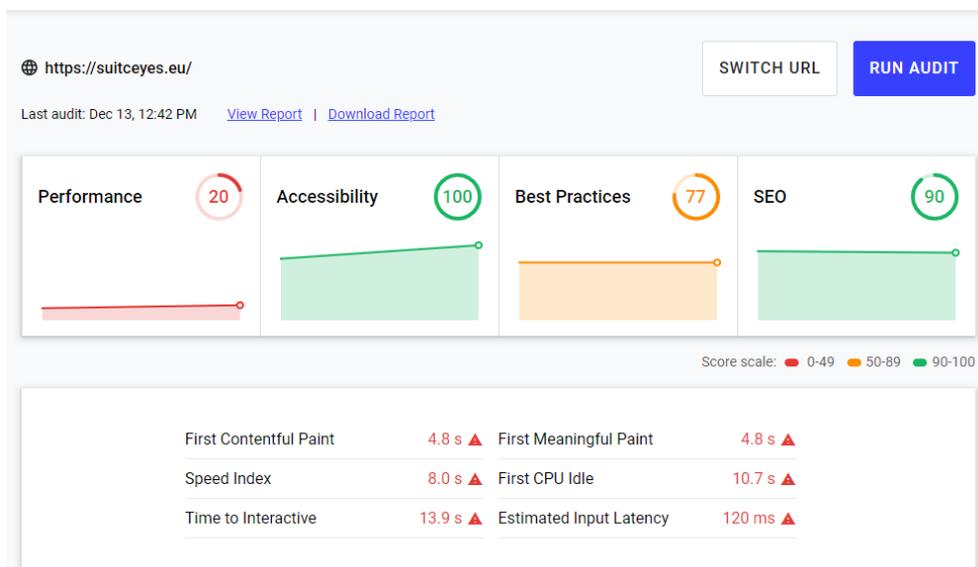


Figure 16: Web.dev audit of SUITCEYES landing page after Twitter plugin had been embedded

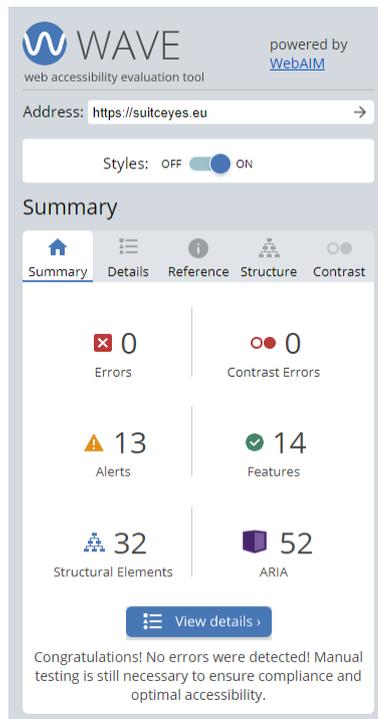


Figure 17: WAVE audit results the use of the Twitter Plugin

The results show that the Twitter plugin barely affects the accessibility of the website in any negative way, with only the number of alerts increasing. This increase can be attributed to embedded redundant links (links to SUITCEYES Twitter page embedded multiple times) and short text elements (e.g., number of 'Likes') used within tweets. All in all, Twitter ensures that WCAG requirements are met by providing ARIA tags to images and buttons embedded inside a Tweet. Looking at the website audit conducted by Web.dev, the results again deviate slightly with the biggest change, i.e., *Best Practises*, that reveals an 8-point drop. *Performance* has also decreased by 1 point, although it must be noted here that this score differs with each test, which can be ascribed to the test being run on a simulated mobile device throttled to a fast 3G network with varying network speeds and 4x CPU slowdown. As a result, small deviations can be expected when it comes to Performance. *SEO* sees a minor improvement of just one point.

With the Twitter feed not having a negative effect on accessibility, we will continue utilizing this plugin.

## Near Future Plans

The project website will remain dynamic throughout the project and will be updated as new contents and needs emerge. Integrating the Twitter feed into the sidebar will help keep the website dynamic and fresh. Although the website's accessibility has been improved by changing its theme, the results from the website audit, in particular from Web.dev, show the need for action to improve website performance. This issue will be addressed in the upcoming weeks.

Throughout the project, the website will be our central channel for sharing information about the project, its progress and goals. We intend to use the opportunities and expand the available information on the website regularly to reach out and interact with our external audience.