

### **Deliverable D6.2**

# **Project Website**

### WP 6

**Project Acronym & Number:** SmartCLIDE – GA 871177

Smart Cloud Integrated Development Environment supporting the full-stack implementation, composition

Project Title:

and deployment of data-centered services and

applications in the cloud

Status: Final

**Dissemination Level:** Public

**Authors:** Philippe Krief (Eclipse Foundation)

**Contributors:** All partners

**Document Identifier:** SmartCLIDE-D6.2\_V1.0

**Date:** 31.03.2020

Revision: 1.0

**Project website address:** www.smartclide.eu

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871177



### **Project Partners**

### Institut für angewandte Systemtechnik Bremen GmbH (ATB), Germany

Intrasoft International SA (INTRA), Luxembourg

Fundacion Instituto Internacionale de Investigacion en Intelligencia Artificial y Ciencias de

la Computacion (AIR), Spain

University of Macedonia (UoM), Greece

Ethniko Kentro Erevnas Kai Technologikis Anaptyxis (CERTH), Greece

X/OPEN Company Limited (TOG), United Kingdom

Eclipse Foundation Europe GMBH (ECLIPSE), Germany

Wellness Telecom SL (WT), Spain

Unparallel Innovation LDA (UNP), Portugal

CONTACT Software GmbH (CONTACT), Germany

Kairos Digital, Analytics and Big

Data Solutions SL (KAIROS DS), Spain



### **Dissemination Level**

PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
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СО	Confidential, only for members of the consortium (including the Commission Services)	

## **Document Control**

Version	Notes	Date
0.1	Creation of the document	18.03.20
0.2	Internal review	20.03.20
0.3	Integration of the first internal review	27.03.20
0.4	Integration of the second internal review	28.03.20
0.5	Integration of the remarks of the project coordinator	30.03.20
1.0	Final Version	31.03.20



### **Abbreviations**

AB	Advisory Board	M	Month
APM	Adaptive Project	PB	Plenary Board
7 M W	Management	PB	Plenary Board
App	Software Application	PC	Project Coordinator
CMS	Content Management System	PQA	Project Quality Assurance
D	Deliverable	QA	Quality Assurance
DoA	Description of Action		Research and
e.g.	exempli gratia = for example	RTD	Technological Development
EA	Ethical Adviser		Research and
EC	European Commission	RTD	Technological Development
etc.	et cetera	SC	Steering Committee
EU	European Union	SME	Small and Medium
FP7	Framework Programme 7	SML	Sized Enterprise
GA	Grant Agreement	STQA	Scientific and Technical Quality Assurance
GDPR	General Data Protection Regulation	T	Task
i.e.	_		Voice over IP
i.e.	id est = that is to say	VoIP	
ICT	Information and Communication	w.r.t.	with respect to
	Technology	WP	Work Package
IP	Intellectual Property	WPL	Work Package Leader
IPR	Intellectual Property Rights	WPMT	Work Package Management Team
KPI	Key Performance Indicator		



### **Executive Summary**

This report describes the SmartCLIDE project website from its conception to its first adaptation. It explains its current role in the entire dissemination and communication process. It further describes both the methods as well as the technologies used to effectively design and build the SmartCLIDE project website.

We have further taken advantage of this document to present the other communication channels that we have set up since the start of the project to cover the early dissemination needs of the consortium.



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### 1 Introduction

### 1.1 Document Purpose

The website of the SmartCLIDE project is the main tool to communicate project results to scientists, scholars, professionals, the interested public and other stakeholders. It targets all profiles identified in the DoA and refined during the execution of the project. More specifically, it aims at providing a project introduction as well as continuous updates on project results. The website is designed using the WordPress Content Management System (CMS), as it naturally supports the combination of static pages with blog entries that are continuously added. WordPress also provides an editorial system that supports the coordination of inputs from the different partners and collaborators of the project. Usually, the website is associated with several social media channels which will contribute in spreading the project results and messages, knowing the website will stay the main knowledge base of the project.

The target user group of SmartCLIDE is at least generally interested in research and therefore will be able to read and understand texts in English language. Consequently, the main language of the web site is English, while internationalization support may be added at a later stage of the project.

The website has been designed with the following principles in mind:

- To serve the public with a "user-friendly" and "modern" interface to get information about communication, dissemination, exploitation and standardization initiatives carried out by the project.
- To contribute to the promotion of the visual identity of the project.
- To offer flexibility to adapt the project message which will evolve during the project.

### 1.2 Approach

When defining the communication channels to be set up for a research project such as SmartCLIDE, 5 steps must be followed:

- 1. Domain name registration. The domain name of the web domain was chosen by the project coordinator to be smartclide.eu, which reflects the project name, indicates the European connection and is a short and comprehensive.
- 2. Identification of targets. Once the targets are known, the communication channels they follow can be retrieved, and a project account is created for each of these channels. The DoA defines a set of default targets: large companies, software SMEs or free-lance developers, Research and Technological Development (RTD) community and wider society. It is planned to refine these personas by organising some "User Persona Identification" sessions with the consortium.
- 3. Identity, unity and branding. This is the mission of the logo. It will help the consortium being recognized and it will contribute to the project's graphical charter.
- 4. Landing page, for all the project's coming communications. This is the initial mission of a project website.
- 5. Social media accounts, which will help promoting the project status, results and progress and which will help the creation of a community around SmartCLIDE.



### 1.3 Document Structure

The document consists of the following sections:

- Section "Adopted Tools and Technologies": This section describes the methods and technologies used for designing and building the web site, as well as the creation of other dissemination channels, such as social media accounts, used in the SmartCLIDE project
- Section "Project Logo": This section explains how the logo of SmartCLIDE was conceived.
- Section "Project Website": This section describes how the project website was conceived from a design perspective and how it looks like.

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#### 2 **Adopted Tools and Technologies**

The project website uses mostly free or open-source tools and technologies. In particular, the project website is built upon a WordPress installation hosted by a European provider: OVH<sup>1</sup>.

#### 2.1 WordPress

WordPress is a free and open-source content management system (CMS) written in PHP and paired with a MySOL or MariaDB database. It is based on plugins and template architecture. WordPress is used by more than 60 million websites, including 33.6% of the top 10 million websites as of April 2019. WordPress is one of the most popular content management system solutions in use<sup>2</sup>. WordPress allows full control on the project website's graphic theme and code. Moreover, it permits maintainers to install and/or customize functions through its flexible plugin systems and through its modifiable set of PHP and Cascading Style Sheets (CSS) files.

The overall graphic theme of the website was discussed internally, and several possible alternatives were evaluated. Among them, we selected the professional version of the Colibri WP<sup>3</sup> theme. Such a theme has been chosen for its flexibility and modernity. Like all the other WordPress themes, it offers a set of functions, including page layouts, search and categorization services, etc., that cover most of desired features.

#### 2.2 **Mailchimp**

Mailchimp is a marketing automation platform and an email marketing service. We use this service to collect email of visitors who want to stay informed about the project progress. This email marketing service offers a great advantage: it manages for the project all the GDPR rules in terms of subscription or desubscription to a newsletter such as a project newsletter.

#### 2.3 **Social Media accounts**

Our dissemination strategy is built around four main social media networks, Twitter, LinkedIn, YouTube and SlideShare. Twitter and LinkedIn accounts have been created since the start of the project. SlideShare and YouTube accounts will be created as soon as the project will have to share some presentations and videos.

#### 2.3.1 LinkedIn

LinkedIn is a business and employment-oriented service. Initially exclusively used in North America, today it has been widely adopted all over the world. LinkedIn enables jobseekers and employers to connect. The site has become the "premier digital platform" for professionals to network online. The project will leverage this aspect of LinkedIn to increase its visibility by targeting dedicated LinkedIn groups. LinkedIn Groups provide a place for professionals in the same industry or with similar interests to share their insights and experiences, ask for guidance, and build valuable connections. We already identified a couple interesting groups like:

- Cloud Computing, Cybersecurity and its 513,349 members
- Cloud Computing and its 445,045 members
- Deep Learning and its 17,577 members

To join LinkedIn as a full member, we created a LinkedIn company artefact named **H2020 SmartCLIDE** (https://www.linkedin.com/company/42160432).

<sup>1</sup> https://www.ovh.com/

<sup>&</sup>lt;sup>2</sup> https://en.wikipedia.org/wiki/WordPress

<sup>&</sup>lt;sup>3</sup> https://colibriwp.com/



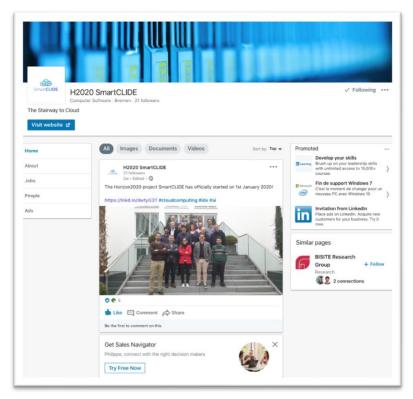


Figure 1: LinkedIn account

One of the advantages of such an artifact is that it can be easily tracked, unlike LinkedIn groups. Moreover, the project members can easily mention it in the career path, thus increasing its visibility.



Figure 2: Project as a professional experience on LinkedIn

### 2.3.2 Twitter

Twitter is a microblogging and social networking service on which users post and interact with messages known as "tweets". Twitter was created in 2006. In 2012, more than 100 million users posted 340 million tweets a day. As of 2018, Twitter had more than 321 million monthly active users<sup>4</sup>.

By its numerous usages<sup>5</sup>, Twitter is really well adapted for research projects, for example on Action Calls, News Reporting, and Social Trends. It offers the possibility Research projects to express the heartbeat of the project.

The twitter account for the project is @SmartCLIDE<sup>6</sup>.

<sup>&</sup>lt;sup>4</sup> https://en.wikipedia.org/wiki/Twitter

<sup>&</sup>lt;sup>5</sup> https://en.wikipedia.org/wiki/Twitter\_usage

<sup>&</sup>lt;sup>6</sup> https://twitter.com/SmartCLIDE

#### 3 Project Logo

The project logo is one of the key marketing assets. It helps identify your project amongst others, and certainly contributes to or influences the graphical charter of the website and all the other marketing tools of a project. In other words, it is very important that the entire consortium can identify with the logo.

In early February, we launched a design contest on 99designs.com<sup>7</sup>. It is a crowdsourcing tool that gives anyone access to a pool of designers that compete to propose the chosen logo. Only the chosen design will be awarded the payment for the logo design. SmartCLIDE provided the following description to potential designers:

### Create a dynamic logo for a next generation open cloud development environment

SmartCLIDE (Smart Cloud Integrated Development Environment) is a research project to create an open source, smart cloud development environment to help organizations achieve the benefits of digitalization. The project will assist organizations in managing the advances in areas such as cloud computing, the internet of things, big data, virtual reality and blockchain.

SmartCLIDE will provide access to existing services in a way that allows non-technical staff to compose and deploy new services for their organizations. It will seamlessly and transparently support the team throughout the software lifecycle (software development, testing, deployment and runtime) by recommending assets or services appropriate at that stage. It provides a gateway service to allow teams to efficiently access both open source and internal assets to accelerate service creation. Because it is cloud-based, it will also enable collaboration among the different stakeholders in a project.

The target users for SmartCLIDE will be software development teams and software providers working with internal and external clients to provide new services. SmartCLIDE utilizes deep learning and discovery to leverage existing services to build on 'the shoulders of giants'.

We received several interesting proposals<sup>8</sup> that we submitted to the vote of the consortium. Finally, the following logo has been selected:



Figure 3: SmartCLIDE logo

<sup>&</sup>lt;sup>7</sup> https://en.99designs.com

<sup>&</sup>lt;sup>8</sup> For confidentiality and copyright reasons, proposals received during the design contest will only be visible in deliverable D6.4.

#### 4 **Project Website**

The website is the first segment of media we launched. It offers a digital existence and address on the web. The address is easily shared with anyone and invites users to stay tuned by regularly visiting the site. It is a central point for our targets/community to retrieve and research all the results produced by the project.

We also use website displays and collect all the results related to the project.

The website will evolve time after time over the next 3 years, but we wanted to keep it simple and helpful for the best interaction and feed of our community.

#### 4.1 **Information architecture**

The web page was structured according to common information architecture principles as one-page structure and no more than a second hierarchy:

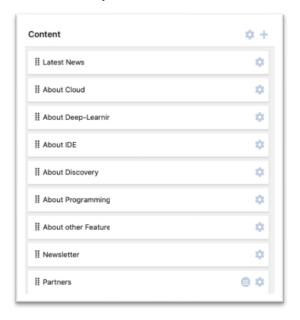


Figure 4: SmartCLIDE one-page Structure

This structure allows browsing the contents with few mouse clicks and is further extensible for publishing project results such as source code or tutorial videos. Organization and labelling of content have been done in order to achieve the best interaction among visitors, context and content.

WordPress has many tools built right into its content management system (CMS) that can be used for information architecture planning by applying the four basic functional components of an IA plan:

- 1. Organization: The Colibri WP v1.0.61 theme has a predefined structure, with flexible ability for editing, about how content is assembled, presented, and organized. It is possible to customize post types such as blog post, or page.
- 2. Labeling has been done considering how visitors are expected to interpret and navigate the website structure. For example, the words 'Contact Us' and 'Resources' will give the visitor a clear impression about what he/she will find by clicking on these words.
- 3. Navigation: The SmartCLIDE website exploits a single, primary navigation menu. Additionally, some elements of the primary menu could have subsections, to categorize those elements. We no examples for now.
- 4. **Search**: SmartCLIDE has a search box located on the Footer, allowing the visitor to search for posts, pages or any keyword in the website.
- 5. **Responsive design and support for mobile devices**: the page is well accessible on devices with different screen sizes. On mobile devices switching a page requires more effort than



scrolling, therefore the content has been concentrated on a few number of pages rather than in many subpages.

In particular, the website content was structured and organized having four types of user behavior in mind<sup>9</sup>:

**User searching for a known item:** In this case, the user has already a seeking pattern, for example a user could look for the project description or the list of partners. For this reason, the website provides a number of pages addressing the most common items such as "Resources", "Contact Us" and "Partners".

**Exploratory visitor:** Such a user will not search for specific information but browse the webpage for interesting information. For this type of user, the landing page provides a "graphically nice" welcome with links to other parts of the webpage, provided through a set of images contained in the different sections of the home page. In the linked pages the user will learn more about the project, its results and, finally, about current activities posted on the news section.

**User searching for unknown items:** This kind of user doesn't know exactly what they need to know, which is the case if somebody performs a web search for research projects without knowing the typical structure of information pages adopted in such domain. To better support this kind of user behavior, brief information teasers are displayed in each section on the landing (home) page and a search field is provided on the right side of the same. Each section has its "Learn more" button which, for now, redirect to the *About project* page and will jump later on to the blog post detailing this specific point.

**Recurring visitors:** Recurring visitors are either looking for news on the project or for re-finding information they discovered previously on the webpage. In order to support re-finding, the page provides a one-page structure, so that each page can be reached with a maximum of two mouse clicks. Recurring visitors will find the last updates in the home page, just below the welcome section and, of course, in the News page. Later on, we might use the first section and the Latest news section to inform about new resources available for reading.

### 4.2 "Product Box" innovation game

A project website is a way to present and promote the results of your work. It can be considered as the showcase of your project. Thus, it is crucial to identify the correct wording, the correct design to attract the correct people and to give a chance to keep them as early adopters to make the project sustainable.

At the kick-off meeting of the project, we organized a brainstorming session to (1) identify and list the main characteristics of the project and (2) its secondary characteristics and (3) to define a slogan for the project. We needed this information to complete our "showcase" website.

Brainstorming with people who, for the most part, have never met before is not an easy task, even if they have contributed to the same DoA.

So, to help us in this exercise, we used a well-known exercise: the innovation game "Product Box" 10 . The idea of this game is to ask participants to imagine that they have to design and draw a commercial box containing their project. They have to decide the kind of information they will put on each face of the box.

-

<sup>&</sup>lt;sup>9</sup> http://boxesandarrows.com/four-modes-of-seeking-information-and-how-to-design-for-them/

<sup>&</sup>lt;sup>10</sup> https://www.innovationgames.com/product-box/



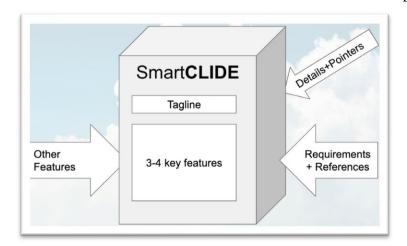


Figure 5: Product Box innovation game

They need to imagine how they will design:

- The front face presenting the key/killing features which should attract the reader/customer/user.
- The back face presenting more details on the key features to convince the reader/customer/user.
- The side faces presenting some complementary information useful to understand the whole project.

So, we draw three unfolded boxes on three paperboard sheets, divided the group in 3 subgroups and asked them to design they product box.

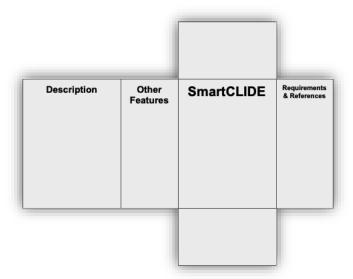


Figure 6: Unfolded box

The three subgroups were pretty verbose and delivered very interesting results<sup>11</sup> that we could summarize in three results:

- Tagline
- Key features
- Other features

<sup>&</sup>lt;sup>11</sup> See the section Fehler! Verweisquelle konnte nicht gefunden werden.-Fehler! Verweisquelle konnte nicht gefunden werden.



#### 4.2.1 **Tagline**

For the tagline, we got four propositions:

- "Smart Cloud-native Development Environment"
- "The smart cloud IDE"
- "An intelligent cloud IDE"
- "Stairway to Cloud"

We run a survey to determine which one we select for the tagline and the consortium chose:

"Stairway to Cloud"

#### 4.2.2 **Key features**

The exercise helps us identify the five key features (Cloud, deep-Learning, Integrated Development Platform (IDE), Discovery, and programming-by-Example) corresponding to the five letters of CLIDE.

The key features will be highly emphasized on the home page of the project website. We will retrieve them on the Welcome and About sections of the website.

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#### 4.2.3 Other important features

Finally, we could identify seven more important, but not key, features:

- Open source,
- Containerized deployment,
- Low code
- Adaptability,
- Security
- QoS and
- Test

We will retrieve these seven points in the **Few more features** section of the website

#### 4.3 Home page

The Home page contains basically six parts:

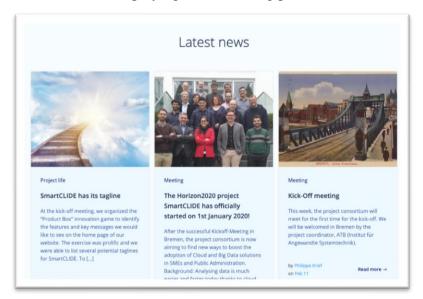
- 1. The Welcome section, also named "Hero" section in the Colibri WP theme. This section shows:
  - The logo,
  - Explains the acronym associated to the name of the project and more particularly to CLIDE:
    - C like Cloud
    - L like Learning
    - I like IDE
    - D like Discovery and
    - E like Example
  - And remind the tagline: "The Stairway to Cloud"



Figure 7: Welcome section



2. The **Latest News** section displaying the 3 last blog posts



**Figure 8: Latest News** 

- 3. The **About** section summarizing the key concepts/features of the SmartCLIDE project:
- Cloud Computing: Cloud computing can be considered as a key enabler of the digital transformation since it has managed to disengage companies' eagerness for growth and the traditional need to acquire more powerful infrastructures.



**Figure 9: About Cloud Computing** 

• **Deep-Learning**: Deep Learning Engine will automatically categorize the available resources before presenting them to the end-users, and the cloud workbench will provide the end-user with multiple abstractions at all the stages of the lifecycle in order to easily compose new services.



Figure 10: About Deep-Learning



■ Integrated Development Environment: A radically new smart cloud-native integrated development environment, based on the coding-by-demonstration principle, that will support creators of cloud services in the collaborative discovery, creation, composition, testing, and deployment of full-stack data-centered services and applications in the cloud.



Figure 11: About IDE

Discovery: Discovery of IaaS and SaaS services will facilitate the composition and deployment
of new services for staff with no previous experience in programming or the administration of
systems and infrastructure. Hiding the complexity of infrastructure, and adding intelligence, will
allow selecting the most adequate infrastructure services at each moment.

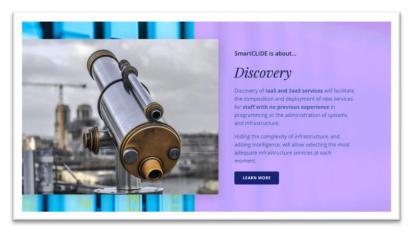


Figure 12: About Discovery

• **Programming-by-Example**: Programming-by-Example / coding-by-demonstration principle for cloud-based solutions is an innovative and disruptive approach, that it will make use of this principle with the objective of generating the underlying software that make the computer behave in a specific way.





Figure 13: About Programming-by-Example

- 4. The **Few more features** section: listing complementary features the consortium wanted to promote about the project:
- **Open Source**: The platform will be open source on the Eclipse forge.
- Containerised Deployment: Containerized deployment can reduce deployment to seconds.
- **Lowcode**: Reduce the amount of traditional hand coding and enabling faster delivery of applications.
- Adaptability: Provide smooth adaptation to continuously changing requirements.
- **Security**: Increase quality and security levels.
- **QoS**: Integrated monitors to ensure the fulfilment of the agreed QoS.
- Test: Visualize flow and status or artefacts to automatically test the expected behavior



Figure 14: Few more features section

- 5. The **Newsletter** subscription section
- 6. The **Partners** section listing the logo of each partners. Each logo is clickable to redirect to the partner home page





Figure 15: Partners section

### 4.4 About Project page

This area provides information about the project by describing the motivations and the overall benefits of SmartCLIDE.



Figure 16: About Project page



#### 4.5 The News page

The News page shows all posts, activities and tweets to which the project participates. Currently, visitors are free to add comments and interact with any post. Plugins for limiting spam have been installed to limit the problem. The posts can be easily navigated by either scrolling in the Home page or the News page.

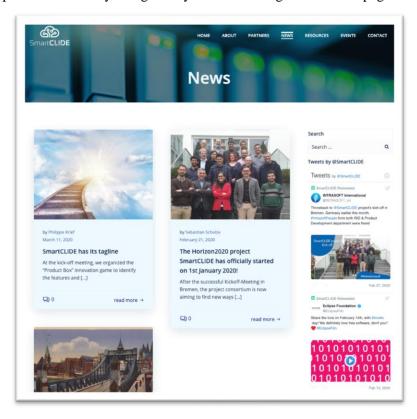


Figure 17: News / Blog page



#### 4.6 Resources

The Resources page lists all the project resources which can be released publicly (e.g. software, deliverables, scientific publications, etc.). At the moment, this section is still empty but it is going to be organized depending on the date of the publication and the nature of the publication.

A counter will be attached to each resource to collect some analytics on the preferred visitor resources.

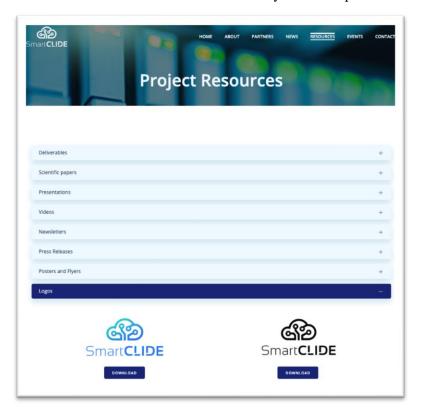


Figure 18: Project resources page



#### 4.7 **Project events page**

The Events page contains a calendar showing all the scheduled project meetings and events related to the project.

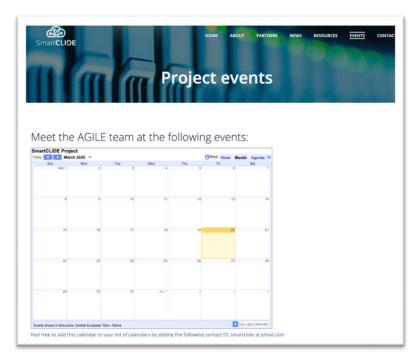


Figure 19: Events page

#### 4.8 **Contact Us**

The Contact Us page contains the pointers to contact the SmartCLIDE project Consortium. The contact details about the project coordinator are presented.



Figure 20: Contact Us page



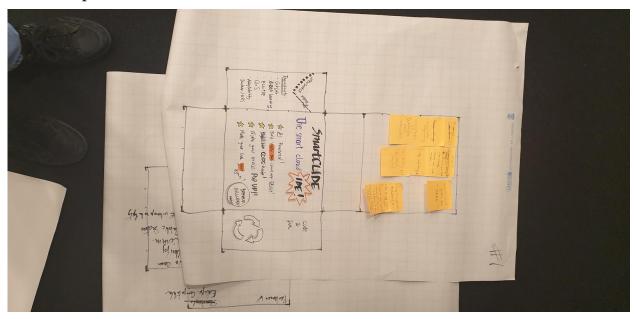
### 5 Conclusions

This report presents the initial SmartCLIDE project website and the associated social media channels that have been setup to promote and disseminate SmartCLIDE. Following the progress of SmartCLIDE project, the website will be improved in terms of content and adding new elements to the structure in order to continuously follow updates on project results. Therefore, the SmartCLIDE website as it is the main communication tool, will keep the project results up-to-date to its professional visitors, the interested public and other stakeholders. Additionally, other channels like twitter and advertising materials will be used to disseminate results from the project. Evolution progress and all new updates on the SmartCLIDE website will be addressed in the final project website and advertising materials report.

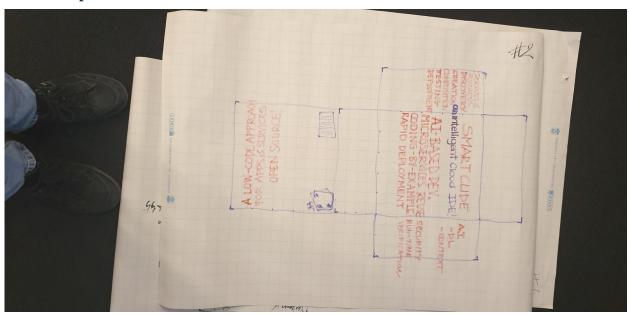


# **6** Appendix: Product box productions

# 6.1 Group A



# 6.2 Group B





# 6.3 Group C

