



POLITECNICO
MILANO 1863

WEBSITE DESIGN REPORT

HYPERMEDIA APPLICATIONS

Prof. Garzotto Franca - A.Y. 2022/2023

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[Wizarding Ventures Website](#)

[GitHub Repository](#)

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1 Abstract

The project of the Hypermedia Applications course is the development of a website for a *Venture Capital firm*. In this report we will focus on presenting a detailed overview of the design choices that were made to implement such a website.

We opted for a Harry Potter theme to stick and be coherent with the name chosen for our group, *Web Wizards*. Our hypothetical Venture Capital firm has been founded in this fictional magical world by the main characters of the story.

The following chapters will show all the steps of the process that led us to the final version of the website. Code and assets are available in the project repository linked on the first page.

2 C-IDM Diagram

The C-IDM (*Content Interactive Dialogue Model*) Schema is a visual representation that aims at supporting web applications planning phase.

Analyzing the requirements, we opted for the following content organization. As an extra element, we decided to add the *participation* relationships (highlighted in blue) between *Project* and *Person* to have a more realistic situation in which a person contributes to a project but is not its supervisor.

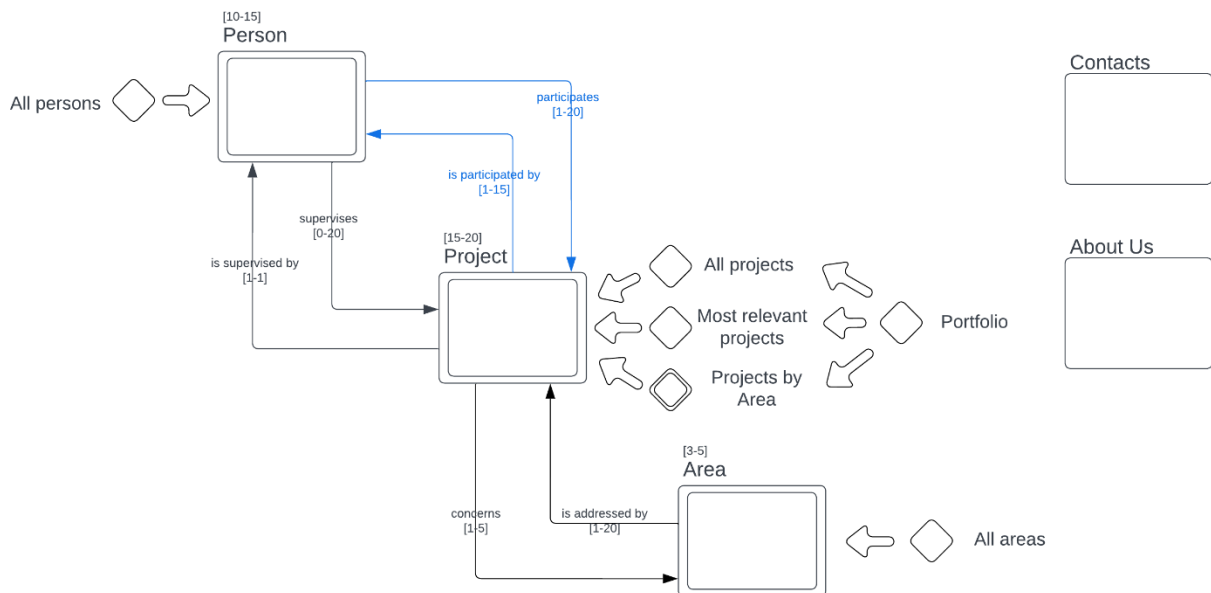


Figure 2.1: C-IDM Diagram

3 Content Tables

This section contains a list of all the content in-the-small tables we created.

3.1 Landmarks

Every page contains landmarks in the top navigation bar and in the footer. We decided to maintain the same links in all the pages of the website, instead of changing them.

Header landmarks are *Homepage*, *Most Relevant Projects*, *Portfolio*, *Projects*, *Projects by Area*, *Areas*, *Our Team*, *About Us* and *Contacts*, while the footer includes a link to the *Homepage*, as well as links to the social media profiles of the firm. For simulating a real Venture Capital website, the footer also includes links to our *Privacy Policy* and *Cookie Policy* pages, but since they are only textual and their content is not relevant in the design context, we will not describe them here.

3.2 Kind of Topic Tables

KIND OF TOPIC: PERSON
Person Name: Text (max 30 char)
Person Photo: Image
Person Role: Text (max 30 char)
Hiring Date: Date
Contacts: Text (e-mail, links to social media profiles)
Person CV: Text (link to PDF file)
Person Description: Text (max 150 words)
Related Projects as Supervisor Preview: [Image (Project Logo), Text (Project Title)]
Related Projects as Team Member Preview: [Image (Project Logo), Text (Project Title)]

KIND OF TOPIC: AREA
Area Name: Text (max 40 char)
Area Logo: Image
Area Description: [Text (max 800 words), n Images]
Related Projects Preview: LIST OF [Project Logo; Project Title]

KIND OF TOPIC: PROJECT
Project Title: Text (max 50 char)
Project Logo: Image
Project Foundation Year: Date
Project Presentation: [Text (max 150 words), n Images]
Problem Description: [Text (max 150 words), n Images]
Related Supervisor Preview: Text (Person Name)
Related Team Members Preview: Text (Person Names)
Related Concerning Areas Preview: Text (Area Names)

3.3 Group Tables

GROUP: "ALL PERSONS"
Group Title: "Our Team"
Description: Text (max 50 words)
Members Preview: LIST OF [Person Photo; Person Name; Person Role]
GROUP: "ALL PROJECTS"
Group Title: "All projects"
Members Preview: LIST OF [Project Title]
GROUP: "ALL AREAS"
Group Title: "All Areas"
Description: Text (max 50 words)
Members Preview: LIST OF [Area Logo; Area Name; Area Abstract (max 55 words)]
GROUP: "MOST RELEVANT PROJECTS"
Group Title: "Most relevant projects"
Description: Text (max 150 words)
Members Preview: LIST OF [Project Logo; Project Title]
MULTIPLE GROUP: "PROJECTS BY AREA"
Group Title: "[Area X] projects"
Members Preview: LIST OF [Project Logo; Project Title]

3.4 Topic Tables

TOPIC: "CONTACTS"
Title: "Contacts"
Description: [Text (max 20 words), n Images]
Phone Numbers: Number
E-mail: Text
Social Media: [Text, Thumbnail Image]
Address: [Text (max 20 words), Map]
Submit Message Form: Form

TOPIC: "ABOUT US"
Title: "About Us"
Description: [Text (max 500 words), n Images]

TOPIC: "PORTFOLIO"
Title: "Portfolio"
Description: [Text (max 500 words), n Images]
Most Relevant Project Preview: [Image (Project Logo), Text (Project Title)]

4 Wireframes

In this section we provide the high-fidelity wireframes of all the abstract pages we created.

NOTE: Background in our Website is static, so the screenshots present a duplicated one that do not correspond to the real website.

4.1 Header and Footer

Since every page on our website contains the same Header and Footer, we will analyze them in this section to avoid redundant explanations.



Figure 4.1: normal Header



Figure 4.2: Header on small windows

The header component contains the list of landmarks that can be used to navigate inside the website. It changes according to the different screen dimensions, presenting a hamburger menu that opens a sidebar with all the landmarks present in the normal header.

NOTE: in Homepage the header changes its colors, you will see it in chapter 4.13.



Figure 4.3: Footer

This component presents some links to internal pages as well as links to external websites (*social networks*).

4.2 Orientation Info

Every page of our website presents the same approach to show orientation info, that is showing the page's title in a box to highlight where the user is.



Figure 4.4: Title Example

4.3 Back Button

Every page of our website presents the same button in the left border inside the title box. This button is a *Back Button* that allows the user to get to the previous page. In the following chapters it will be highlighted using the color [green](#).



Figure 4.5: Back Button

4.4 Legend

To shorten the following descriptions of the screenshots, here we provide a legend of the colors used to highlight clickable items that can be used to navigate the website or to get to an external link.

The colors used are:

- [Green](#): used to highlight the *back button*,
- [Orange](#): used to highlight *Group Links*,
- [Yellow](#): used to highlight *Transition Links*,
- [Light Blue](#): used to highlight *external website* links or files.

4.5 Person Kind of Topic Page

The single **Person** page is divided into two main sections:

- Firstly, the team member's personal information is provided: their full name, role, hiring date, contacts and Curriculum Vitae. Clicking on social media icons, the user will be redirected to that external website. A short description of the person's interests and impact on the company is also available.
- Then, a preview of the projects in which they participated is offered through sliding carousels. A distinction is made between the projects they supervised and those in which they engaged just as a team member.

The pages for the 15 company members all follow the layout shown below.

We opted for an **Index + Guided Tour navigation pattern**: from each Person, the user can access the entry point of the group collection (in our case, *Our Team* page, reachable by clicking on the title), and vice versa; through the arrows located on the sides, it is possible to go to the Next and Previous Person, in an established order (that of the *Person_ID* in the database).

The corresponding abstract page *Person* is presented in chapter 7.1.



Figure 4.6: Person page

4.6 Area Kind of Topic Page

The single **Area page** is entirely dedicated to an in-depth and captivating description of a specific area of investment. In total, there are 5 areas: *Health*, *Education*, *Renewable Energies*, *Transport & Mobility* and *Tourism*, all having the same layout as shown below. Their identifying logo is located at the beginning of the page, under the title, which in this case is the Area name, and every paragraph presents a decorative image. At the end, there is a small section giving a glimpse of all the projects associated with the investment area, through a sliding carousel.

From each Area, it is possible to navigate to the Next and Previous Area pages, in an established order (that of the *Area_ID* in the database).

The corresponding abstract page *Area* is presented in chapter 7.1.

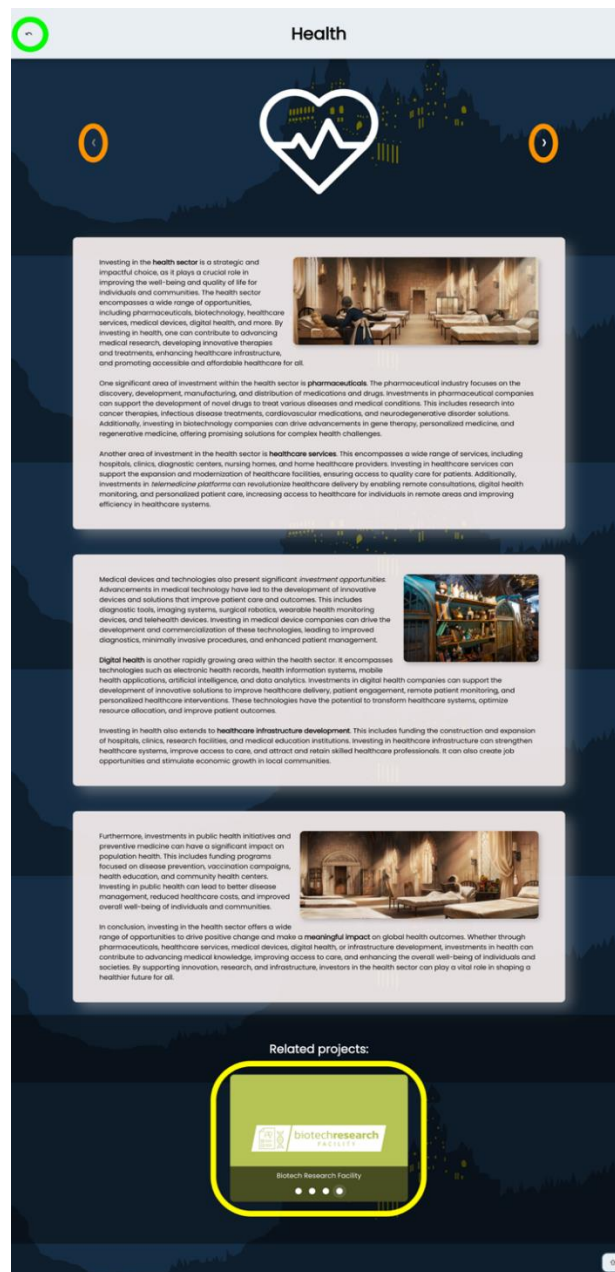


Figure 4.7: Area page

4.7 Project Kind of Topic Page

The single **Project page** is divided into two sections:

- The first one contains basic information on the project's starting year, the people who worked on it, and the concerning areas of funding. Its logo is prominently displayed on the side.
- The second is a more descriptive one, providing a detailed explanation of the project as well as the problem it targets and seeks to solve.

The corresponding abstract page *Project* is presented in chapter 7.1.



Figure 4.8: Project page

4.8 All Persons Group Page

Our Team page presents a preview of everyone who works at *Wizarding Ventures*. After a very small introductory text, a list of person cards is shown, including their photo, full name and position within the organization.

Clicking on the card, the user can directly access the page of that specific person (with an Index + Guided Tour navigation pattern, as mentioned in paragraph 4.2).

As extra functionality, we decided to implement different sorting rules for the cards. When first accessing the page, the user will see the cards ordered by role, but it can be changed to alphabetical order or its reverse.

The corresponding abstract page *All Persons* is presented in chapter 7.2.

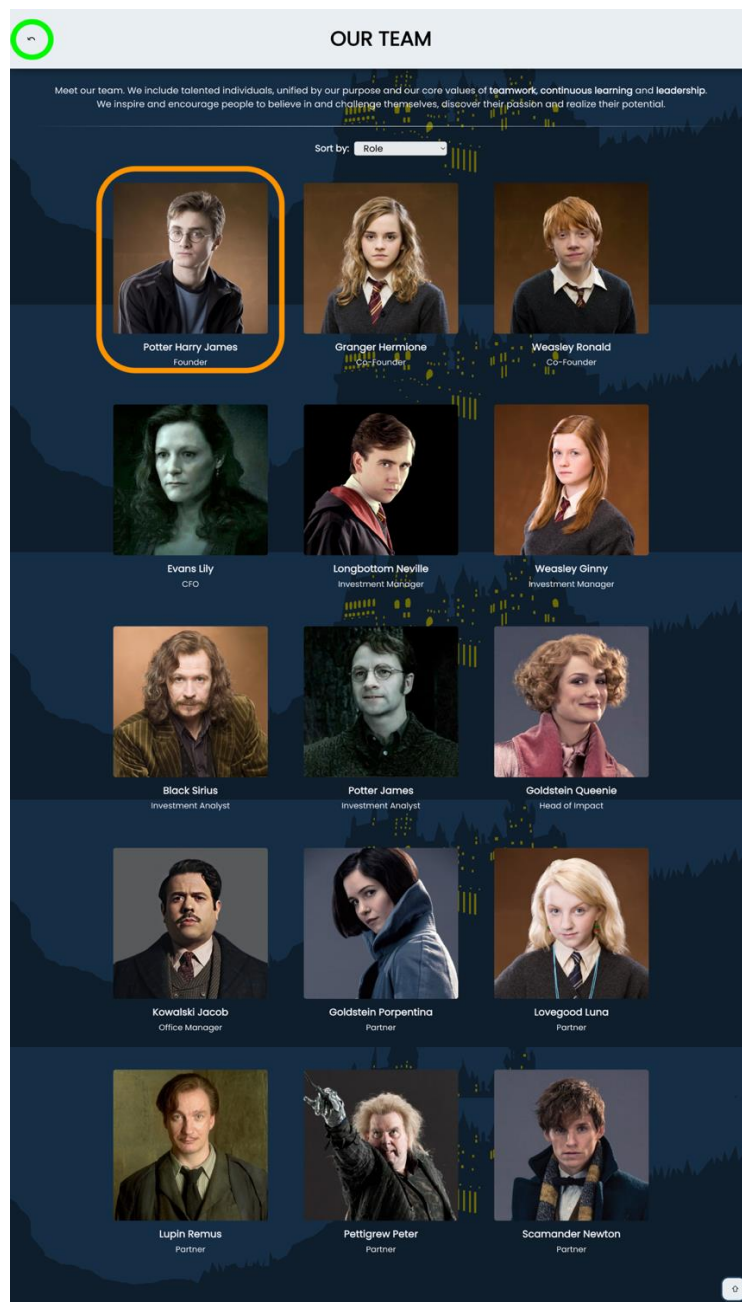


Figure 4.9: Our Team page

4.9 All Projects Group Page

The **All Projects** page contains the full list of projects started by the company. These are split into two columns for a more organized view of the content. At the end of the page, there are links to *Most Relevant Projects* and *Projects by Area* pages.

As mentioned in the previous paragraph, the sorting functionality is implemented. In this case, it allows the user to select between alphabetical order (default), alphabetical reversed, relevance, newest first and oldest first.

The corresponding abstract page *All Projects* is presented in chapter 7.2.



Figure 4.10: All Projects page

4.10 All Areas Group Page

The **All Areas page** is a preview of all the areas of investment. For each of them, its title, logo and small description are available. It is also possible, by clicking on the “*See the full description*” link, to access the page of the specific area.

At the end of the page, there are links to *All Projects*, *Most Relevant Projects* and *Projects by Area* pages.

The corresponding abstract page *All Areas* is presented in chapter 7.2.

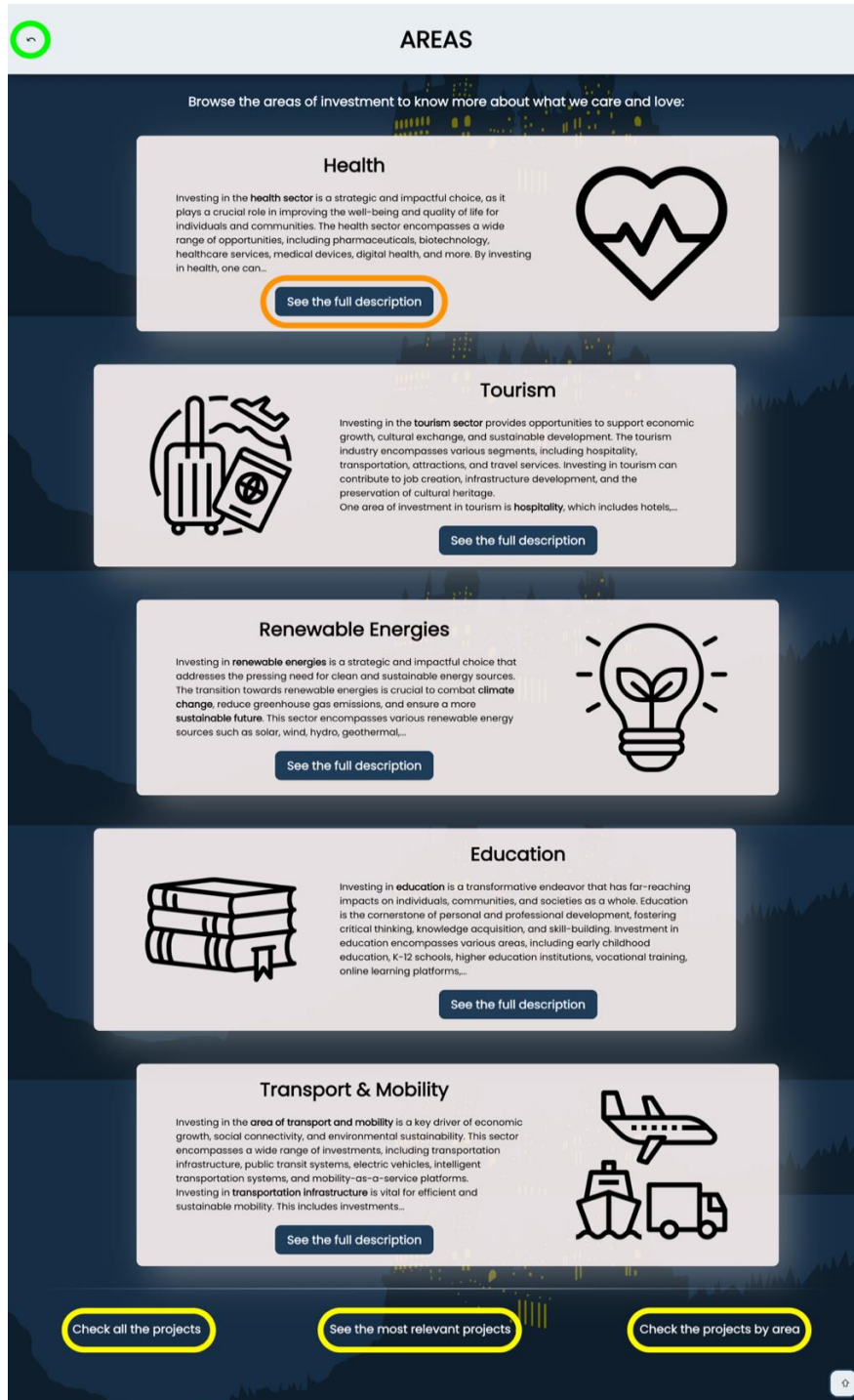


Figure 4.11: All Areas page

4.11 Most Relevant Projects Group Page

The **Most Relevant Projects** page aims at highlighting the most significant and outstanding projects that the company has ever undertaken. For this purpose, a score was assigned to each project, considering its impact on society, and is stored in the database. At the end of the page, there are links to *All Projects* and *Projects by Area* pages. The corresponding abstract page *Most Relevant Projects* is presented in chapter 7.2.

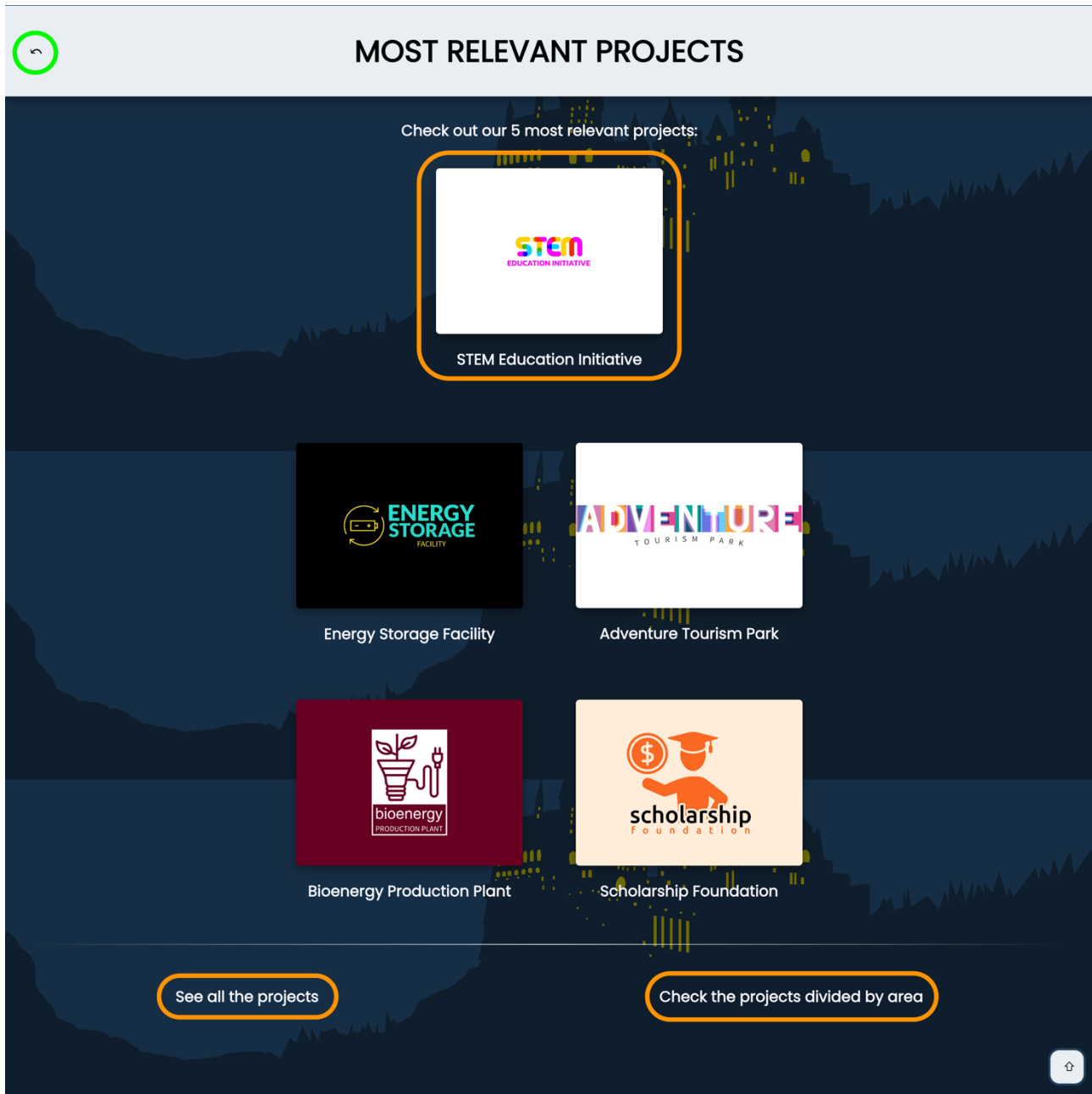


Figure 4.12: Most Relevant Projects page

4.12 Projects by Area Group Page

The **Projects by Area** page has a list of area cards, each of them including the area logo and name. Hovering on the card, the colors change, and clicking on it, the user is led to the page containing the projects of that specific area.

At the bottom of the page, there are links to *Most Relevant Projects* and *All Projects* pages. The corresponding abstract page *Projects by Area* is presented in chapter 7.2.



Figure 4.13: Projects by Area page

4.13 Projects of Area X Group Page

The single **Projects of area X page** has as primal objective to show all the projects related to a certain area of investment. In total, there are 5 areas: *Health*, *Education*, *Renewable Energies*, *Transport & Mobility* and *Tourism*, all having the same layout as shown below. Their identifying logo is located at the beginning of the page, under the title, with a link connecting to Area X page.

From each Projects of Area X, it is possible to navigate to the Next and Previous Projects of Area X pages, in an established order (that of the *Area_ID* in the database).

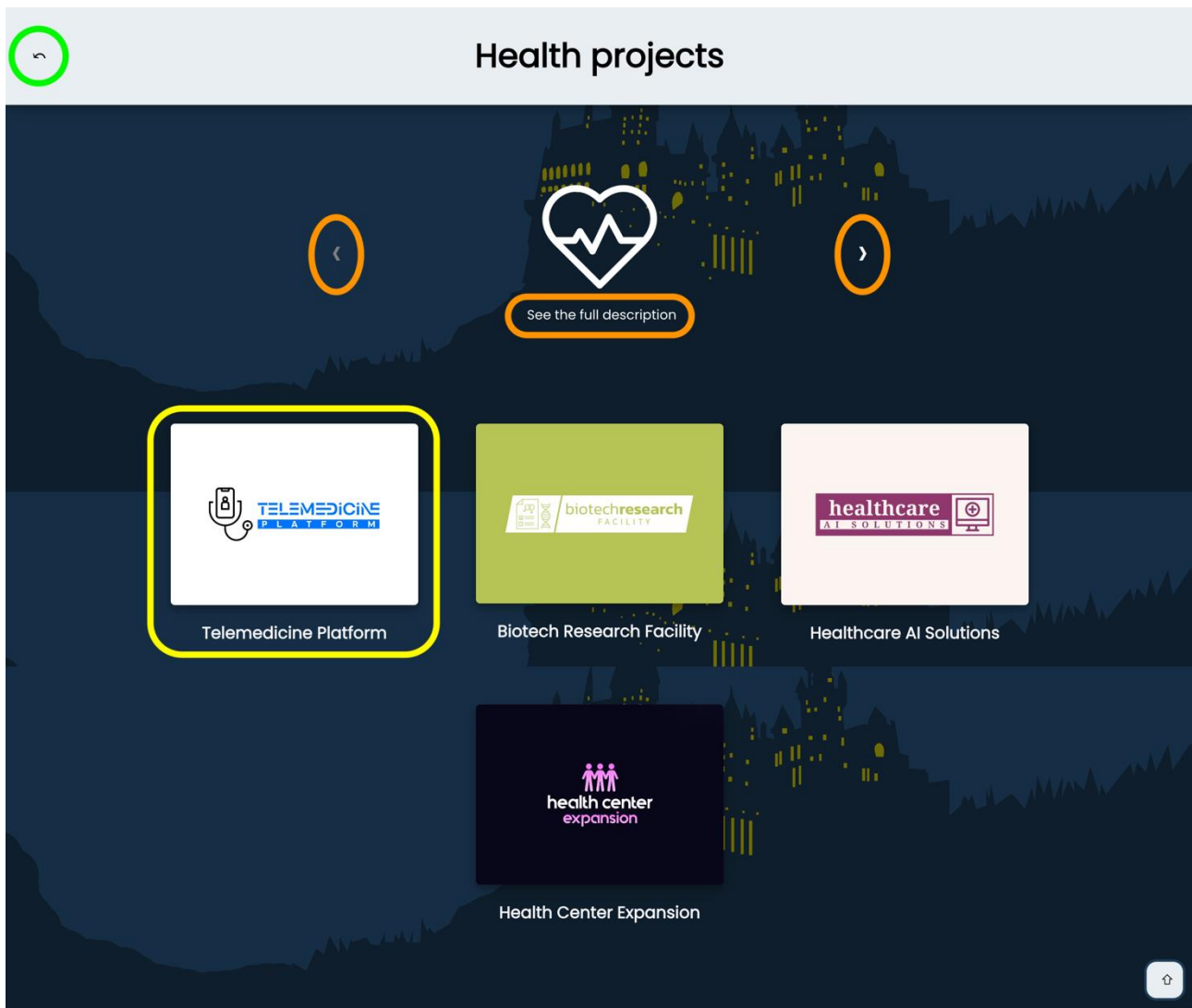


Figure 4.14: Projects of Area X page

4.14 Contacts Topic Page

The **Contacts** page holds all the information a person needs to be able to reach Wizarding Ventures.

It is graphically divided into three sections:

- In the first one, phone numbers, e-mail and social media profiles of the organization are provided;
- The second section is related to an extra functionality we decided to implement: a contact form. Through this form, the user can send feedbacks and messages to the company, and leave their e-mail to be contacted afterwards;
- The third part contains an interactive map pinned at the address of the company headquarters.

The corresponding abstract page *Contacts* is presented in chapter 7.3.

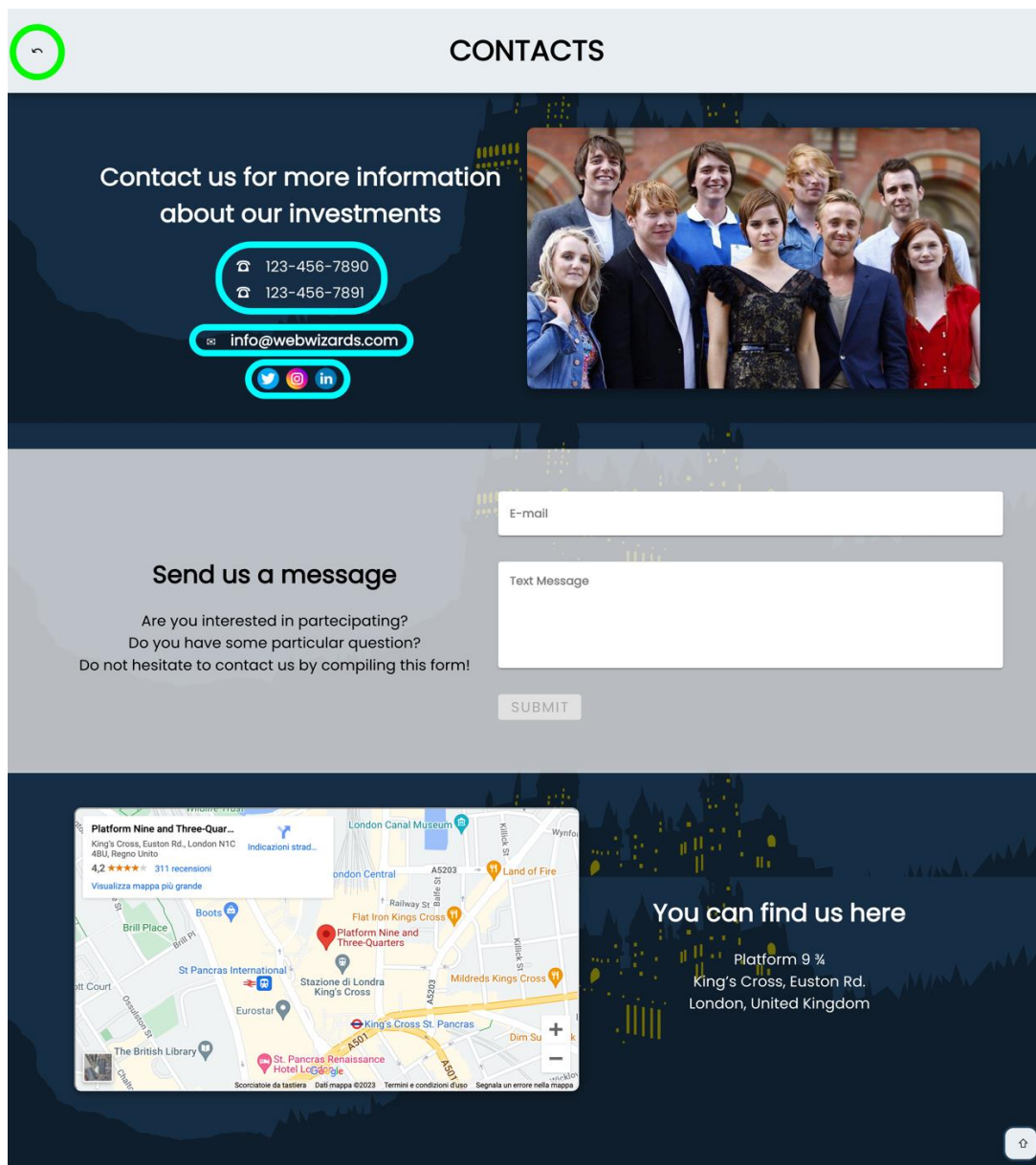


Figure 4.15: *Contacts* page

4.15 About Us Topic Page

The **About Us** page is mainly descriptive, with four paragraphs narrating the vision, activities and *Wizards Ventures* general beliefs, for the user to better understand the company's points of view on the matter of investments. Decorative images and links to other pages of the website (*Portfolio*, *Most Relevant Projects*, *Our Team* and *Contacts*) are included in each paragraph.

The corresponding abstract page *About Us* is presented in chapter 7.3.

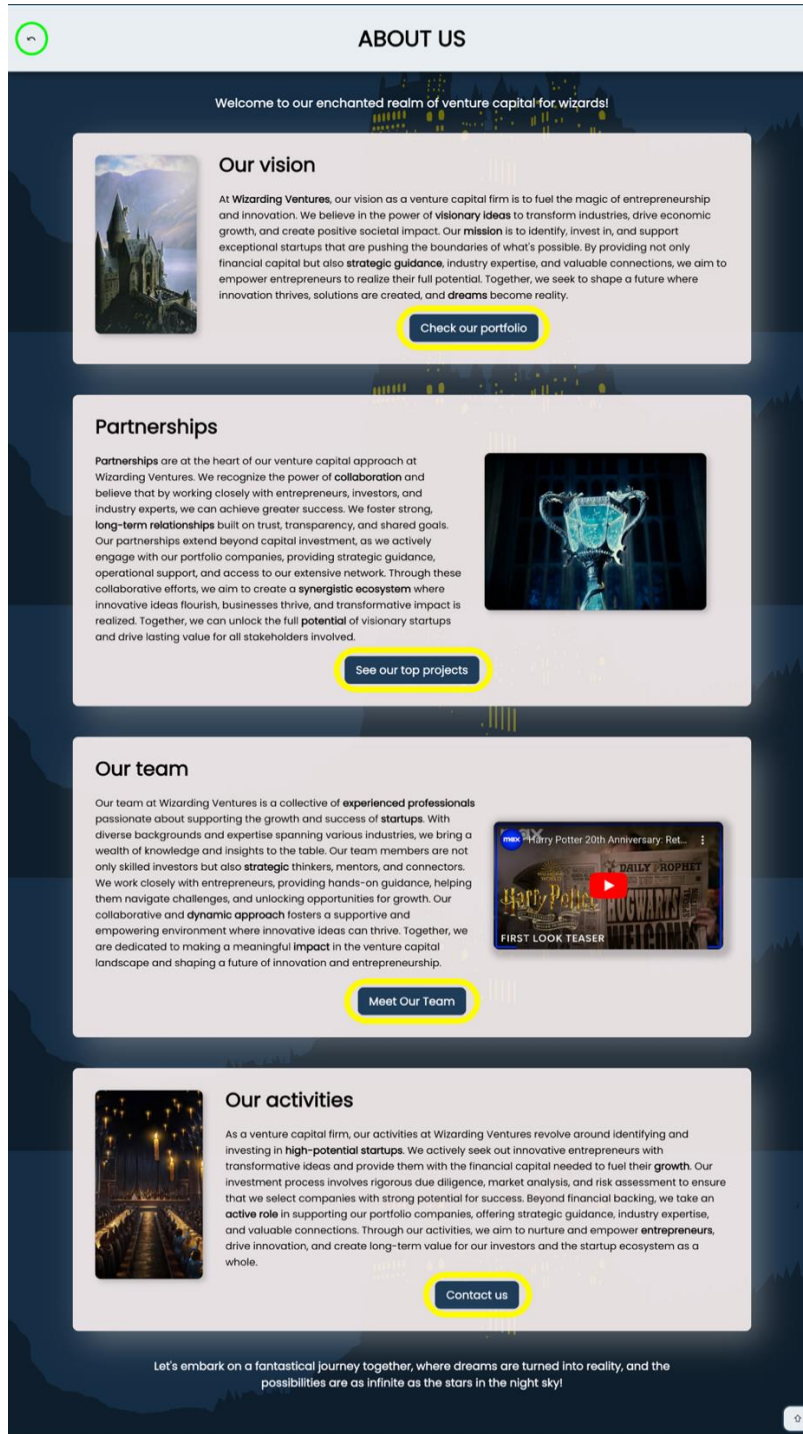


Figure 4.16: About Us page

4.16 Portfolio Topic Page

The **Portfolio page** is mainly made up of a series of descriptive paragraphs related to vision and ideas on the matter of investments, adorned with decorative images.

This descriptive section is then followed by a preview of the current most important project of the company. Clicking on it, it is possible to see its details on its dedicated page.

At the very end of the page, there are links to *All Projects*, *Most Relevant Projects* and *Projects by Area* pages.

The corresponding abstract page *Portfolio* is presented in chapter 7.3.



Figure 4.17: Portfolio page

4.17 Homepage

The first glance at the **Homepage** is the powerful company motto with an invitation to have a look around. It contains a sneak peek of the firm's beliefs as well as a short description of the team, to give the user a quick but effective overview of the company business. There are button links that lead to almost every page of the website to capture the attention of the casual visitor and encourage them to read more. An interactive chart and a carousel slideshow of the most relevant projects have been added to draw the reader's eye.

The corresponding abstract page *Homepage* is presented in chapter 7.3.

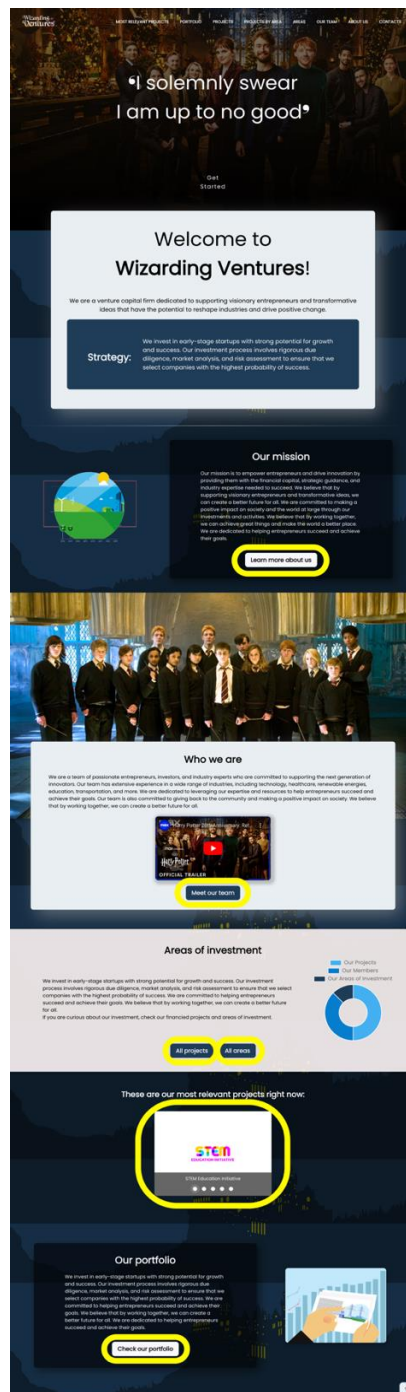


Figure 4.18: Homepage

5 Interaction Scenarios

In this section we present some possible use case scenarios of the website.

Every possible scenario is described with a short story and the series of website's screenshots illustrating the interaction procedure.

5.1 Scenario 1

Hogwarts Med SPA, a famous medical agency operating in UK, is looking for capital to expand her influence in the country by building a new research facility.

Alice, the CEO of the agency, enters on Wizarding Ventures website to check if the company can be trusted for such an important job.

She first goes to the *Homepage* and then clicks on *All areas* landmark in the *Header*, and then opens *Health* page reading the full description.

Thus, she scrolls the carousel at the bottom of the page and opens the *Biotech Research Facility* Project, reads its description finding a lot of similarities with her needs. Finally, she gets convinced and writes an e-mail.

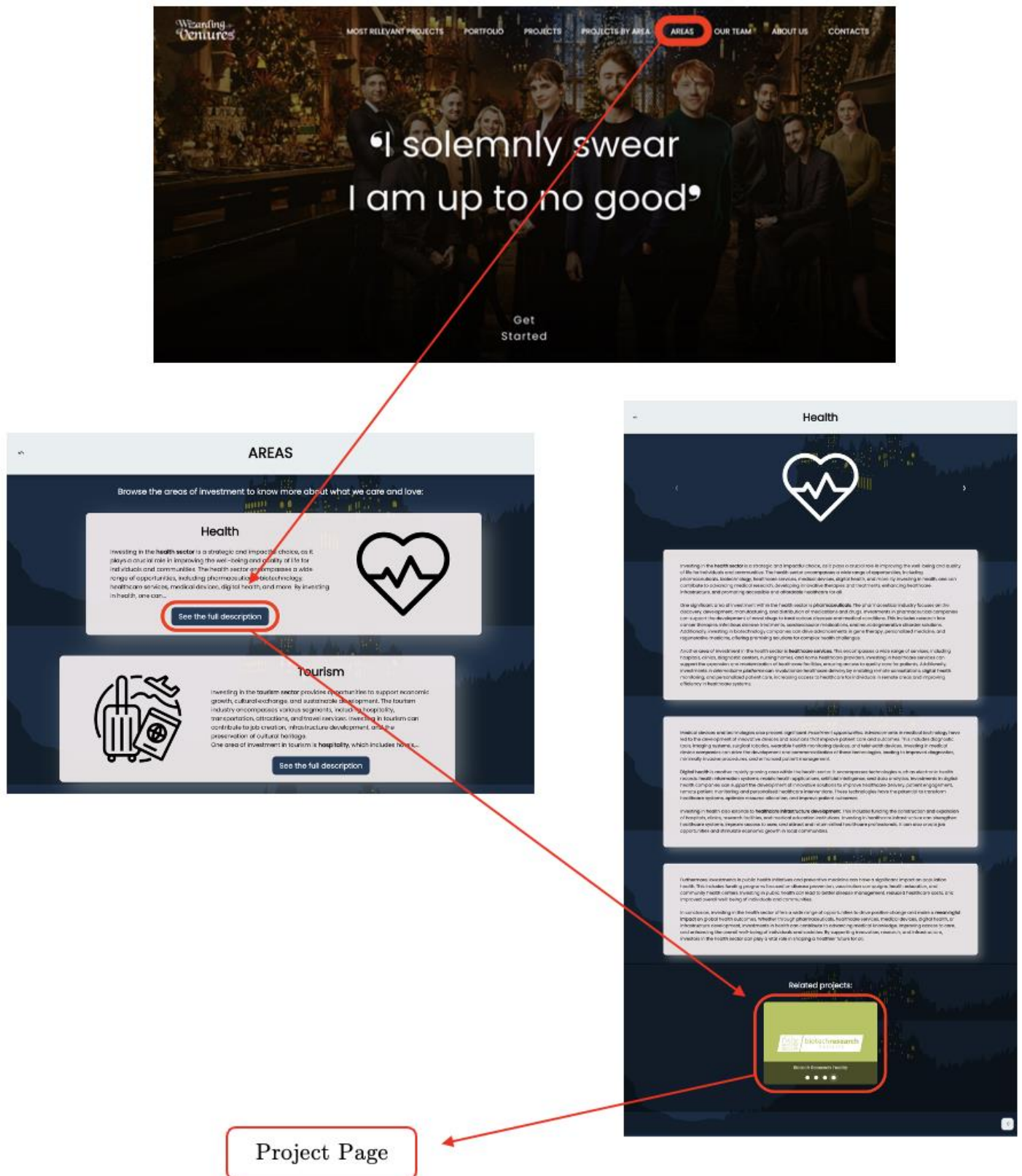


Figure 5.1: Scenario 1 Flow diagram

5.2 Scenario 2

Bob is a man that has already agreed a contract with *Wizards Ventures*.

He receives an email containing all he needs to know regarding his project, including the name of the designated supervisor, Harry James Potter.

Bob wants to check if Harry is the best suited person for his project, so he wants to check Harry's CV.

To do so he starts from the *Homepage*, scrolls down till clicking on *Meet our Team* button, then arrives in *Our Team* page and clicks on Harry's profile.

He reads all the information on the profile and finally clicks on the CV button finding what he was looking for.

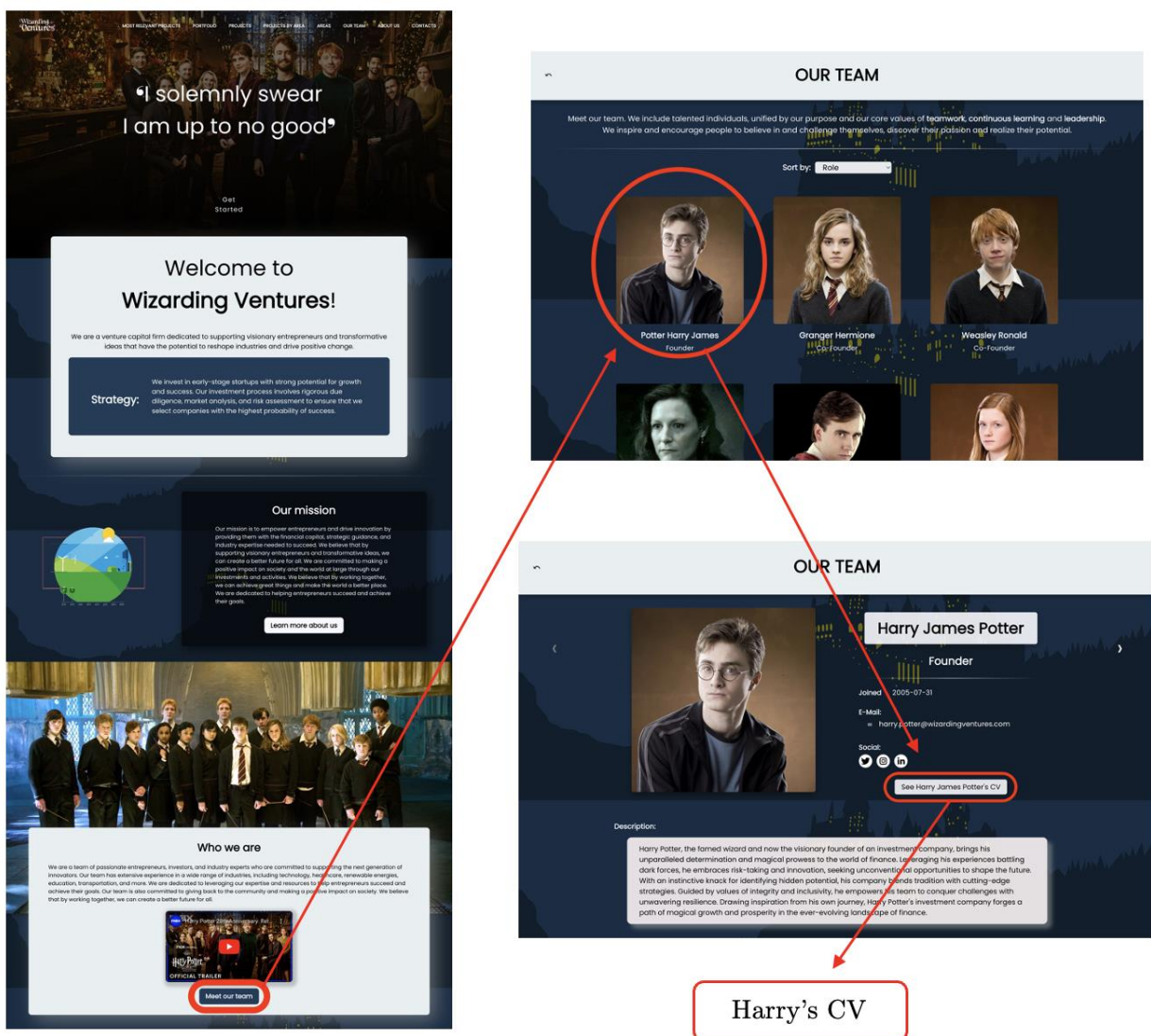


Figure 5.2: Scenario 2 Flow diagram

5.3 Scenario 3

Carl is a journalist working on an article for “www.best-ventures.com” in which he has to rank a list of venture capital websites from a pool of firms that includes *Wizardsing Ventures*. To assign a score he first enters the *Homepage* and scrolls till clicking on the button connecting to *About Us* page. After reading the whole page, he scrolls up to click on *Portfolio* link. He quickly reads its content, and he gets curious to check which are the most relevant projects according to the firm. To do so, he clicks on the corresponding button at the end of the page.

The analysis is finally over, so he quits the website and gives *Wizardsing Ventures* the first place.

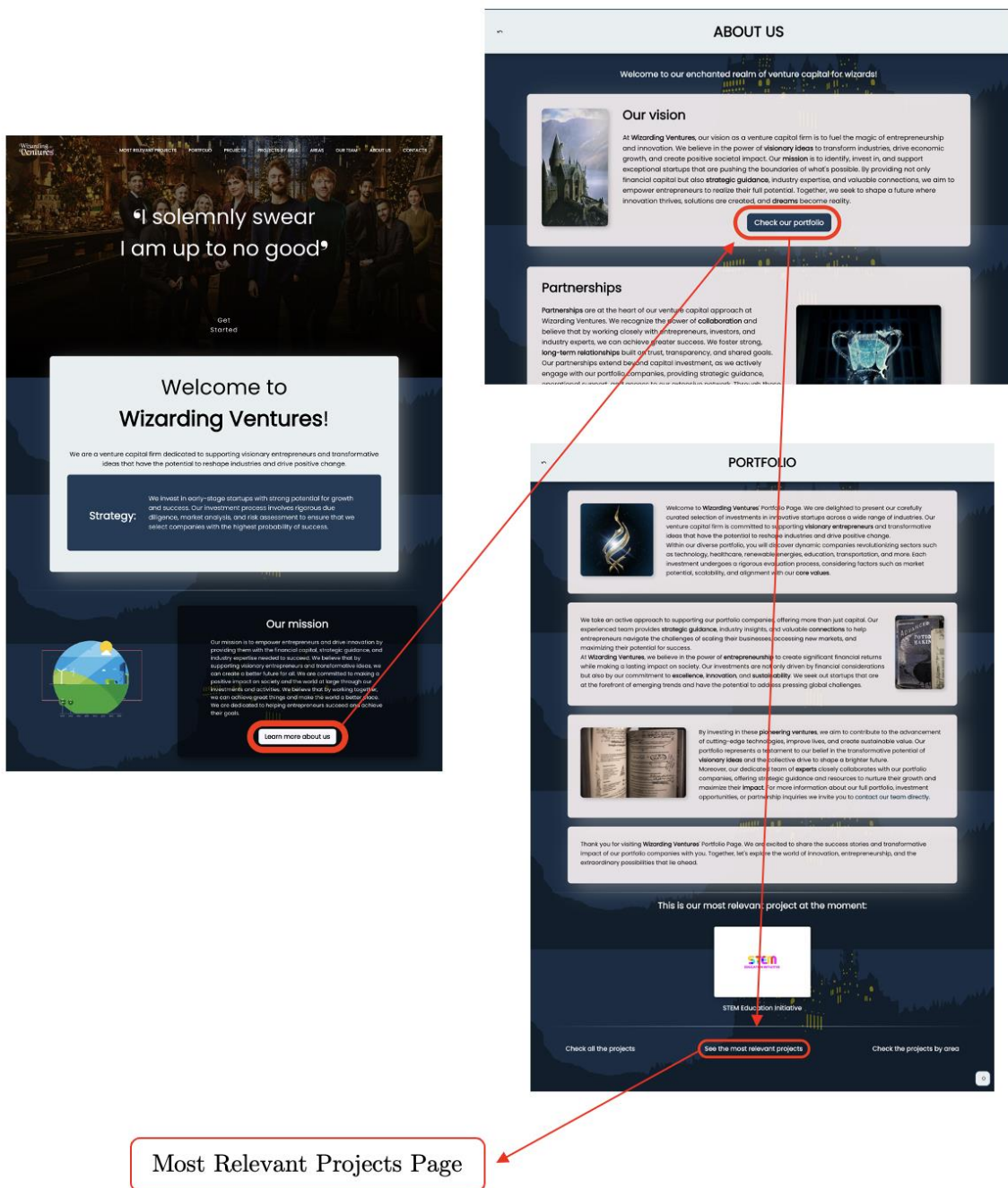


Figure 5.3: Scenario 3 Flow diagram

6 Database Design

In this section we provide the ER Diagram (Entity Relation Diagram), a schema representing the structure of our database.

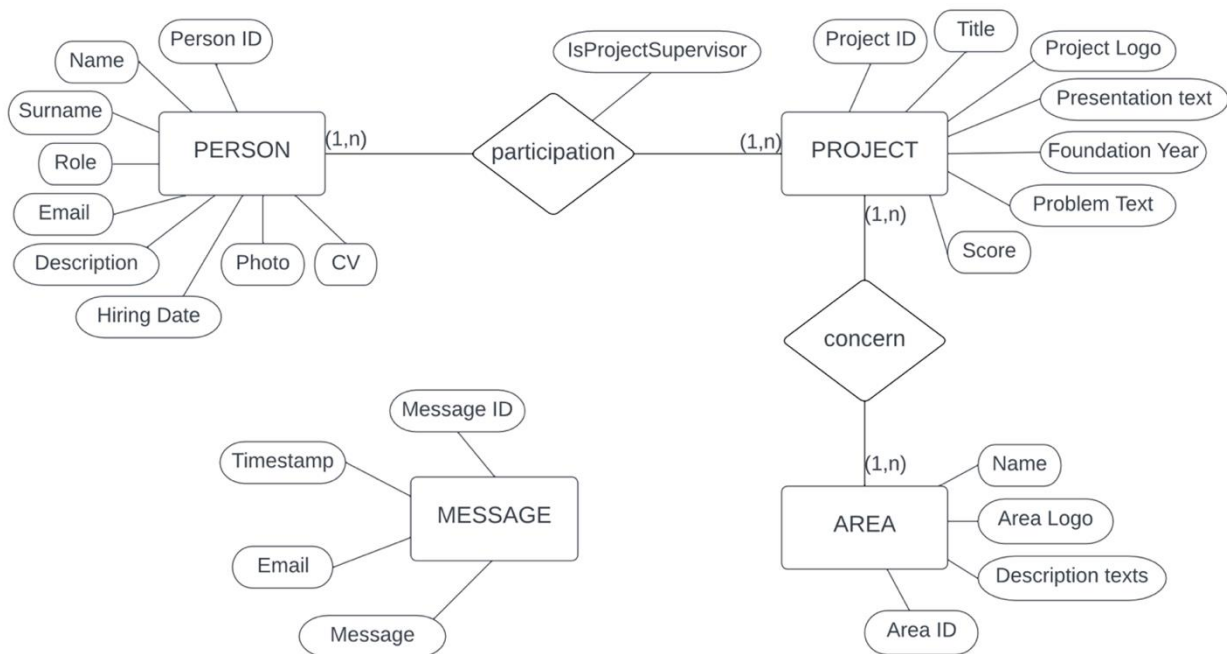


Figure 6.1: ER Diagram

The main tables are PERSON, PROJECT and AREA, that represent the respective entities with the respective attributes and a sequential and unique ID.

We also created CONCERN and PARTECIPATION tables to link entities of different tables using entities IDs.

MESSAGES is a table that contains all the messages that a user sends using the form in Contacts page.

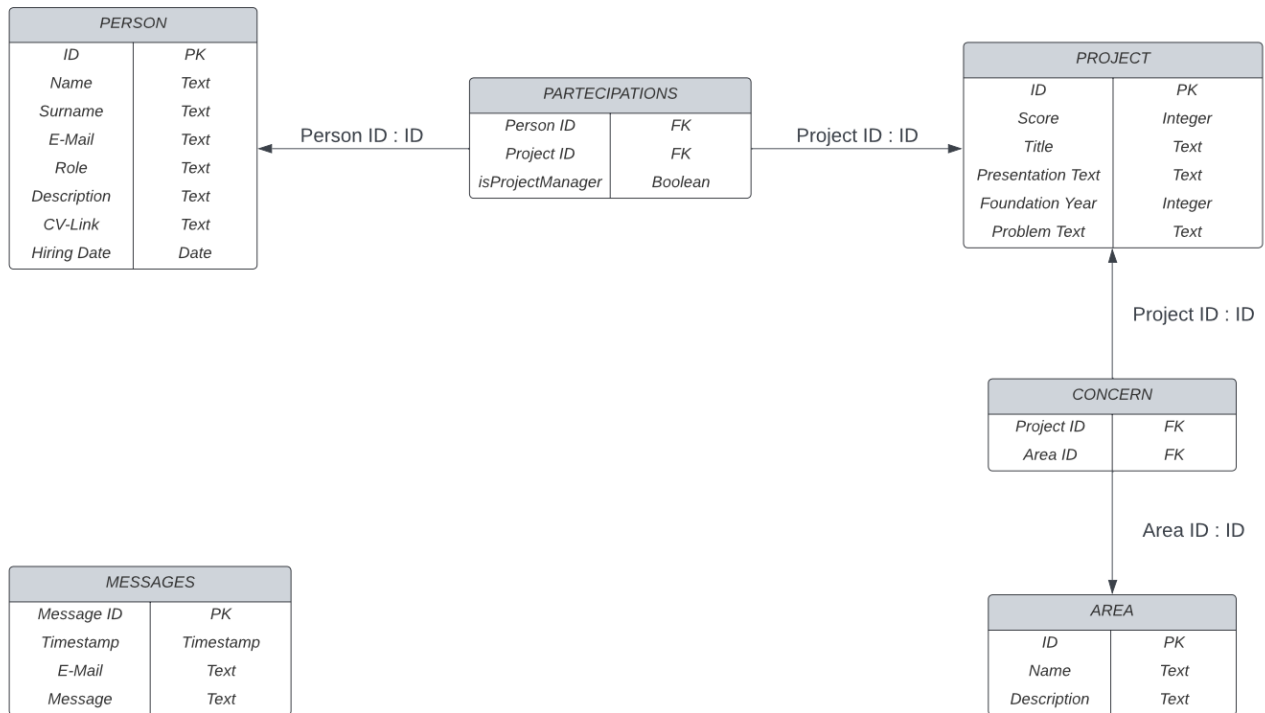


Figure 6.2: Relational Tables

7 Annex: Abstract Pages

Here we provide all the abstract pages we used on the website with related structural, group and transition links and the related content-in-the-small tables.

7.1 Kind of Topics Tables

PAGE FOR KIND OF TOPIC: PERSON	
KIND OF TOPIC CONTENTS	Person Name: Text (max 30 char)
	Person Photo: Image
	Person Role: Text (max 30 char)
	Hiring Date: Date
	Contacts: Text (email, links to social media profiles)
	Person CV: Text (link to PDF file)
	Person Description: Text (max 150 words)
	Related Projects as Supervisor Preview: [Image (Project Logo), Text (Project Title)]
	Related Projects as Team Member Preview: [Image (Project Logo), Text (Project Title)]
TRANSITION LINKS	Links to projects supervised by the person
	Links to projects participated by the person as team member
GROUP LINKS	Up to All Persons
	Next and Previous Person

PAGE FOR KIND OF TOPIC: AREA	
KIND OF TOPIC CONTENTS	Area Name: Text (max 40 char)
	Area Logo: Image
	Area Description: [Text (max 800 words), n Images]
	Related Projects Preview: LIST OF [Project Logo; Project Title]
TRANSITION LINKS	LIST OF [Project]
GROUP LINKS	Next and Previous Area

PAGE FOR KIND OF TOPIC: PROJECT	
KIND OF TOPIC CONTENTS	Project Title: Text (max 50 char)
	Project Logo: Image
	Project Foundation Year: Date
	Project Presentation: [Text (max 150 words), n Images]
	Problem Description: [Text (max 150 words), n Images]
	Related Supervisor Preview: Text (Person Name)
	Related Team Members Preview: Text (Person Names)
	Related Concerning Areas Preview: Text (Area Names)
TRANSITION LINKS	Links to supervisor and collaborators
	LIST OF [Concerning Areas]
GROUP LINKS	Next and Previous Project (all to all navigation pattern)

7.2 Group Tables

PAGE FOR GROUP: "ALL PERSONS"	
GROUP CONTENTS	Group Title: "Our Team"
	Description: Text (max 50 words)
	Members Preview: LIST OF [Person Photo; Person Name; Person Role]
GROUP LINKS	LIST OF [Person]

PAGE FOR GROUP: "ALL PROJECTS"	
GROUP CONTENTS	Group Title: "All projects"
	Members Preview: LIST OF [Project Title]
GROUP LINKS	LIST OF [Project]
	Links to Most Relevant Projects and Projects by Area pages

PAGE FOR GROUP: "ALL AREAS"	
GROUP CONTENTS	Group Title: "All Areas"
	Description: Text (max 50 words)
	Members Preview: LIST OF [Area Logo; Area Name; Area Abstract (max 55 words)]
GROUP LINKS	LIST OF [Area]
TRANSITION LINKS	Links to All Projects, Projects by Area and Most Relevant Projects pages

PAGE FOR GROUP: "MOST RELEVANT PROJECTS"	
GROUP CONTENTS	Group Title: "Most relevant projects"
	Description: Text (max 150 words)
	Members Preview: LIST OF [Project Logo; Project Title]
GROUP LINKS	LIST OF [Project]
	Up to All Projects page
	Link to Projects By Area

PAGE FOR MULTIPLE GROUP: "PROJECTS BY AREA"	
GROUP CONTENTS	Group Title: "[Area X] projects"
	Members Preview: LIST OF [Project Logo; Project Title]
GROUP LINKS	LIST OF [Project]
	Next and Previous Projects by Area pages
	Link to Area X

7.3 Topic Tables

PAGE FOR TOPIC: "CONTACTS"	
TOPIC CONTENTS	Title: "Contacts"
	Description: [Text (max 20 words), n Images]
	Phone Numbers: Number
	Email: Text
	Social Media: [Text, Thumbnail Image]
	Address: [Text (max 20 words), Map]
	Submit Message Form: Form

PAGE FOR TOPIC: "ABOUT US"	
TOPIC CONTENTS	Title: "About Us"
	Description: [Text (max 500 words), n Images]
TRANSITION LINKS	Links to Portfolio, Most Relevant Projects, Our Team and Contacts pages

PAGE FOR TOPIC: "PORTFOLIO"	
TOPIC CONTENTS	Title: "Portfolio"
	Description: [Text (max 500 words), n Images]
	Most Relevant Project Preview: [Image (Project Logo), Text (Project Title)]
GROUP LINKS	Links to All Projects, Projects by Area and Most Relevant Projects pages

HOMEPAGE	
TOPIC CONTENTS	Title: "Homepage"
	Description: [Text (max 300 words), n Images]
TRANSITION LINKS	Links to About Us, Our Team, Portfolio, All Projects and All Areas

7.4 Additional Information

To know more about the implementation, please refer to the specific report.