



**POLITECNICO**  
MILANO 1863

M.Sc. Computer Science and Engineering  
Hypermedia Applications Project

# Design Report



[plug-it.herokuapp.com](http://plug-it.herokuapp.com)

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**GitHub Repository:**  
[www.github.com/lucagrammer/Plug-IT](https://www.github.com/lucagrammer/Plug-IT)

23rd March 2021  
Version 1.0

## **Abstract**

*Plug-IT* is a medium-sized Italian company operating in the ICT sector that needs a website to show the information related to its services. The goal of this document is to provide a functional and visual description of the website to be implemented. In particular, it aims at describing the main design choices through models, schemas and use case scenarios. Furthermore, it will also present the structure of the database from both a conceptual and logical viewpoint.

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# Introduction

## Requirements

*Plug-IT* is a medium-sized Italian company operating in the ICT sector that needs a website to make itself known and to show its offers. The system must show all the information relating to the *areas* (more than 3) in which it operates and the related *services* (more than 30) it offers.

In addition to the *general description* of the company and its contacts, all information about the *people* (more than 20) working at *Plug-IT* must be shown in detail.

In particular, some relationship must be evident on the website:

- People are related to areas (and vice versa) in different ways, e.g., because they are responsible for an area or because they work in an area
- People are related to services (and vice versa) in different ways, e.g., because they are project manager or because they are reference for assistance for a service
- Services are related to the areas they belong to (and vice versa)

## Purpose

The goal of this document is to provide a functional and visual description of the website to be implemented. In particular, it aims at describing the main design choices through models, schemas and use case scenarios. Moreover, it will also present the structure of the database from both a conceptual and logical viewpoint.

# 1. Conceptual Design

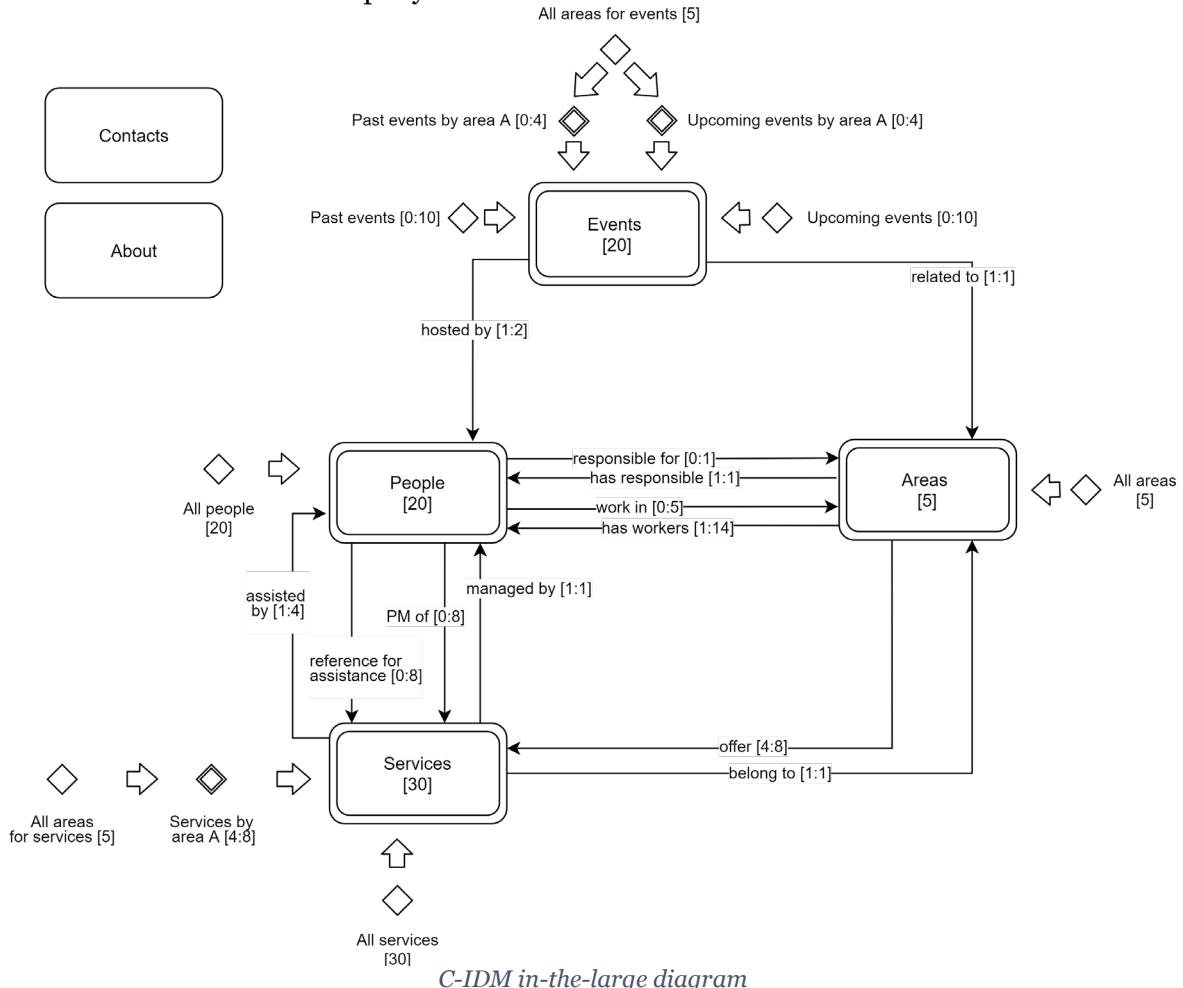
The conceptual design of the website is detailed in this chapter. In particular, the choices relating to the contents, their mapping into pages and the navigation between them will be explained in detail in the following.

## 1.1. Content Design

This section describes the *C-IDM (Content Interaction Dialogue Model)*, which is a model that represents the website in terms of a dialogue between the human and the application. In particular, it explains what the dialogue is about and how the subjects of conversation are classified, mutually related and grouped. It also provides information on what can be said about each of these categories.

### 1.1.1. C-IDM Diagram

The core of the model consists of the three main kind of topic *Services*, *People* and *Areas* that are interrelated. The kind of topic *Areas* consists of all the fields in which the company operates. For each of them, there is a responsible and at most eight other workers. Every *Area* is also associated with at least four services. Each *Service* employs a project manager and has multiple references for assistance. Furthermore, the diagram highlights the association between the people and the areas in which they operate. Another kind of topic concerns the *Events* organized by the company: they regard a specific area and generally involve one or two employees. Finally, the schema contains other two single topics: the first concerns a general description of *Plug-IT* while the other one deals with how to reach or contact the company.



### 1.1.2. Content Tables

In the following tables are defined the contents of the conversation between the human and the application for each category of subject.

<b>KIND OF TOPIC:</b> <i>People</i>
Employee name: text
Position name: text
Employee photo: image
Employee bio: text (max. 200 words)
List of managed areas [area name]
List of projects [service name, area name, employee role]

<b>KIND OF TOPIC:</b> <i>Areas</i>
Area name: text
Area overview: text (max. 250 words)
Area responsible (employee photo, employee name)
Area team: list of people [employee photo, employee name, position]
List of area services [service name, service slogan (max. 10 words)]

<b>KIND OF TOPIC:</b> <i>Services</i>
Service name: text
Service area: text
Service slogan: text (max. 10 words)
Service description: text (max. 300 words)
Project manager (employee photo, employee name)
Reference assistants: list of people [employee photo, employee name, employee role]

<b>KIND OF TOPIC:</b> <i>Events</i>
Event title: text
Event area: text
Event description: text (max 200 words)
Event hosts: list of people (employee photo, employee name, position)
Event details (date, time, location, map)

<b>TOPIC:</b> <i>About</i>
Company overview: text (max. 500 words)

<b>TOPIC:</b> <i>Contacts</i>
Office information (address, phone, fax, email, map)

## 1.2. Navigation Design

This chapter describes the mapping between the content identified in the previous sections and the pages that will be implemented. Furthermore, it includes the *P-IDM* (*Page Interaction Dialogue Model*) diagram, which visually represents the choices made during the design of the high-level navigation topology.

### 1.2.1. Content tables - pages mapping

The following tables detail the mapping of the previously identified contents into pages.

- **KIND OF TOPIC: *People***

<b>INTRODUCTORY PAGE:</b> <i>People Page</i>
People introduction: text (max. 150 words)
Grid of people [employee name, position, employee photo]

<b>TOPIC PAGE:</b> <i>Person Page</i>
Employee name: text
Position name: text
Employee photo: image
Employee bio: text (max. 200 words)
List of managed areas [area name]
List of projects [service name, service area, employee role]

- **KIND OF TOPIC: *Areas***

<b>INTRODUCTORY PAGE:</b> <i>Areas Page</i>
List of areas [area name, short overview (max. 50 words)]

<b>TOPIC PAGE:</b> <i>Area Page</i>
Area name: text
Area overview: text (max. 250 words)
List of area services [service name, service slogan (max. 10 words)]

<b>TRANSITION PAGE:</b> <i>Area Team Page</i>
Area name: text
Area responsible (employee photo, employee name)
Area team: list of people [employee photo, employee name, position]

- **KIND OF TOPIC: *Services***

<b>INTRODUCTORY PAGE:</b> <i>Our Services Page</i>
List of services [service name, area, service slogan (max. 10 words)]

**TOPIC PAGE: *Service Page***

Service name: text

Service area: text

Service slogan: text (max. 10 words)

Service description: text (max. 300 words)

**TRANSITION PAGE: *Service Team Page***

Service name: text

Project manager (employee photo, employee name)

Reference assistants: list of people [employee photo, employee name, employee role]

▪ **KIND OF TOPIC: *Events*****INTRODUCTORY PAGE: *Events Page***

List of events [event name, area, date, time, short description (max. 20 words)]

**TOPIC PAGE: *Event Page***

Event title: text

Event area: text

Event description: text (max. 200 words)

Event hosts: list of people (employee photo, employee name, position)

Event details (date, time, location, map)

▪ **TOPIC: *About*****PAGE: *About Page***

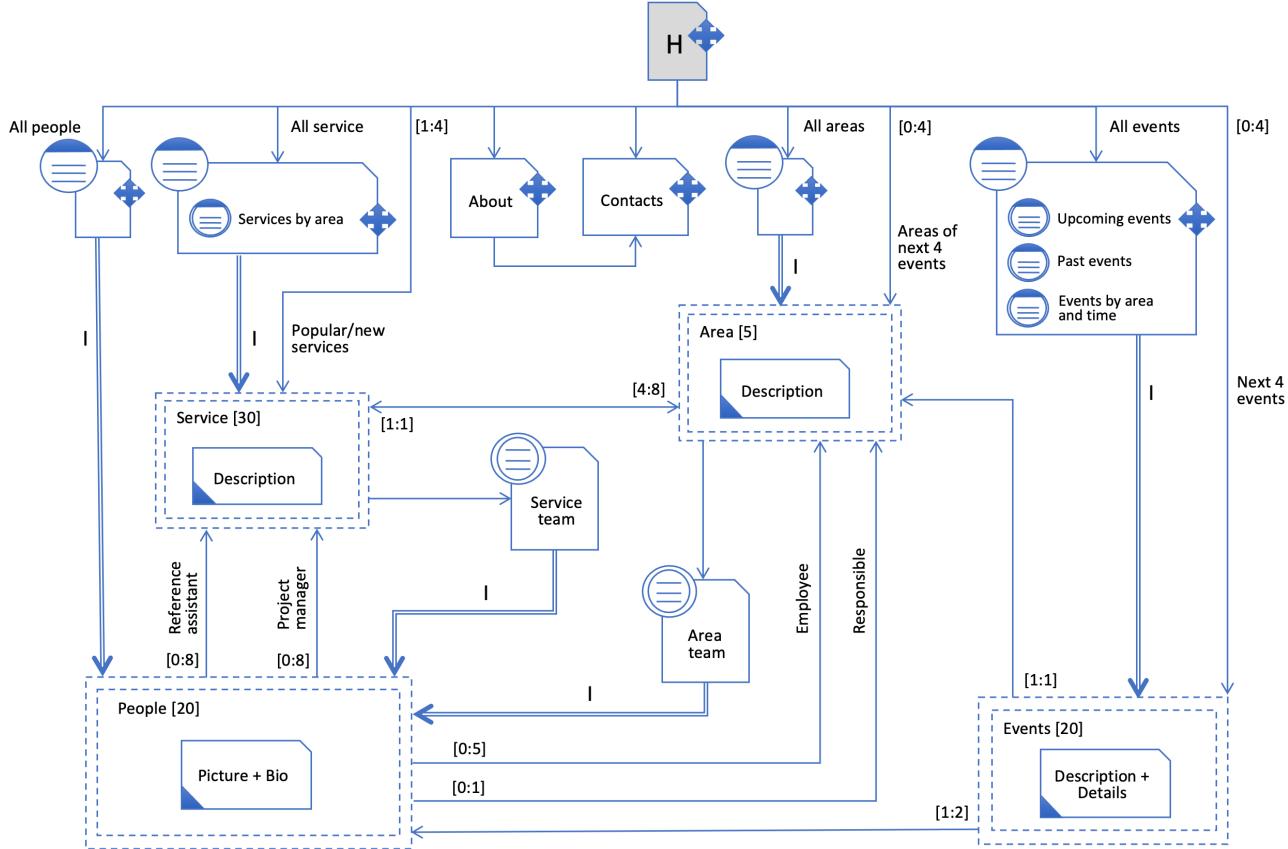
Company overview: text (max. 500 words)

▪ **TOPIC: *Contacts*****PAGE: *Contacts Page***

Office information (address, phone, fax, email, map)

## 1.2.2. P-IDM Diagram

This paragraph includes the *P-IDM (Page Interaction Dialogue Model)* diagram which shows how content is aggregated on pages and how pages of the same or different topics are linked together.



*P-IDM Diagram*

The landmarks of the website consist mainly of links to the introductory pages for the kind of topic *Services*, *Areas*, *People* and *Events*. Moreover, they enable access to the individual topics' pages *About* and *Contacts* from the entire website.

As illustrated in the diagram above, the introductory page to the *People* topic allows you to navigate between the individual employees through an *index pattern*. Moreover, each person page contains *transition links* that leads to the areas or services in which the employee works.

Similarly, the group links of the introductory page for the *Areas* are organized according to the *index pattern*. The *Services*' pages can be reached both by exploiting the *transition links* available in the pages of the related areas or through a dedicated introductory page (*index pattern*). The latter also allows the user to filter the results by area of belonging.

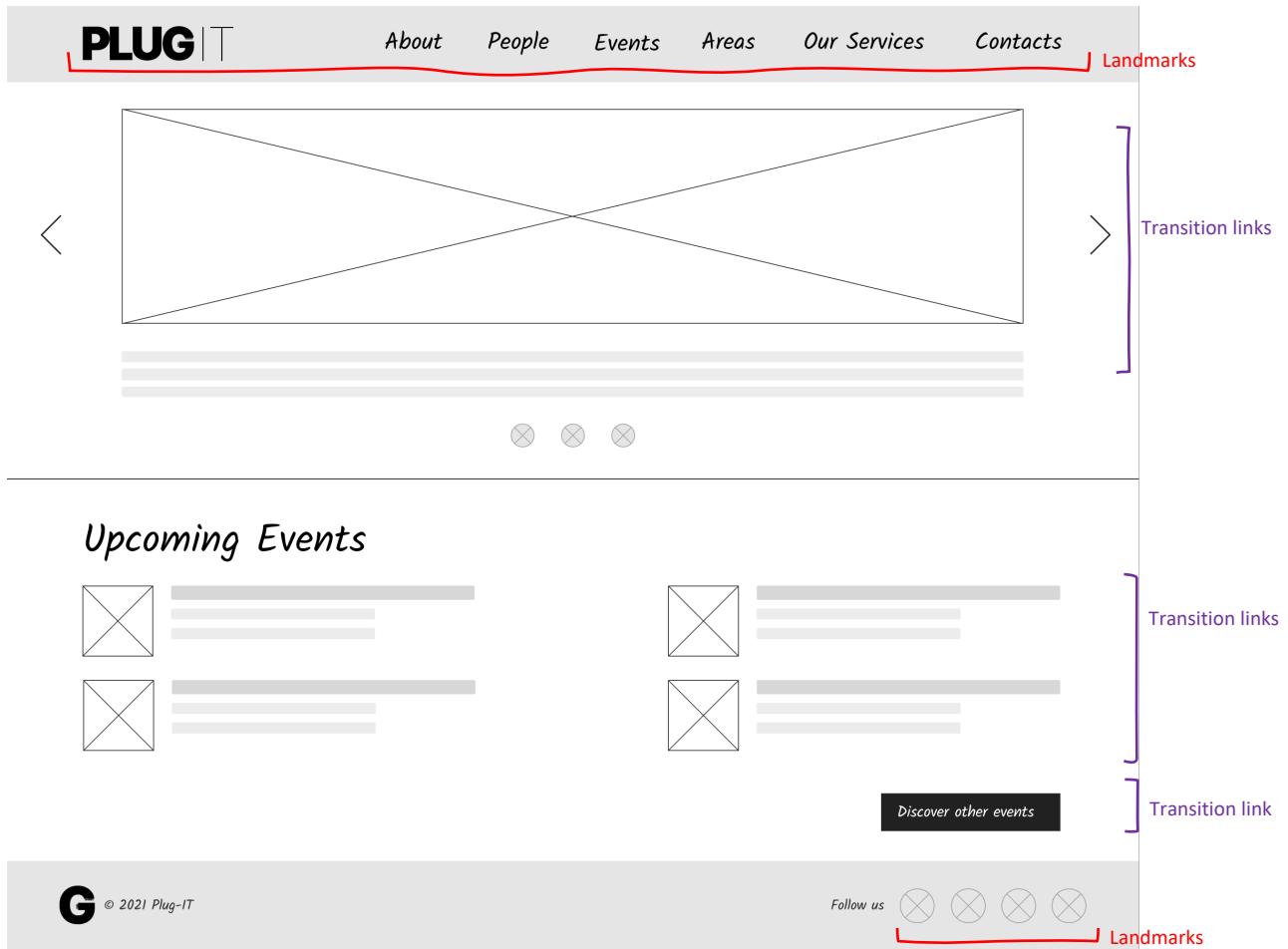
Furthermore, two *transition pages* have been provided to reach the profiles of employees involved in a specific area (*Area Team Page*) or in a specific service (*Service Team Page*).

Finally, the diagram includes also an introductory page relating to the *Events*. From the latter, the events can be filtered by area or by upcoming / past. Once again, the *group links* to the individual pages of the *Events* are managed according to the *index pattern*.

## 2. Visual Design

This chapter concerns the definition of the graphical structure of the website to be implemented. Each page will be represented via a low-fidelity wireframe and a high-fidelity prototype. The former shows what the page offers and the basic visual organization of the content, navigation, and interaction elements on the screen. The latter defines the advanced "look and feel" of the interface, using real content. In both the representations, all the main links will be carefully highlighted.

### 2.1. Home Page



Wireframe 1: Home Page

The *Home Page* is the starting point for the user experience on the website. The central communication purpose here is to establish the brand, encourage visitors to dig deeper into the rest of the site and, ultimately, convert them into loyal customers. The solution adopted for *Plug-IT* offers a summary of the website content.

As shown both in the wireframe and in the prototype, the *Home Page* is composed, at the top, of an image slider that displays an overview of the company's most famous services and those recently added to the catalogue. Furthermore, there is a section containing *transition links* to the next four scheduled events as well as a direct link to the introductory page of the events.

**PLUG IT**

About People Events Areas Our Services Contacts **Landmarks**

**Smart Offices at their best with IHC** (NEW SERVICE)

We help you connect your services together in remarkable new ways. IHC is the easiest way to do more with apps and devices like Twitter, Dropbox, iRobot, Fitbit, Alexa and much more.

● ○ ○ ○

**Upcoming Events**

**How to better protect and empower our kids**  
 ↗ Education  
 2021-09-12, 11:00  
 Digital opportunities and challenges for families in the time of COVID-19

**Algorithm Conference 2021**  
 ↗ Artificial Intelligence  
 2021-09-15, 08:30  
 A conference that will feature no-pitch, high-level workshops and presentations that demonstrate how algorithms are shaping every aspect of our lives.

**Implementing Group Work in the Classroom**  
 ↗ Education  
 2021-10-21, 11:30  
 Learn how to use Schoolwork to efficiently manage assignments and group works in your classrooms.

**The IoT and the mmWave Frontier**  
 ↗ Internet of Things  
 2021-10-26, 10:30  
 Explore the potential of the newest IoT solutions which take advantage of the high frequency mmWave to make devices communicate even faster.

[Discover other events](#)

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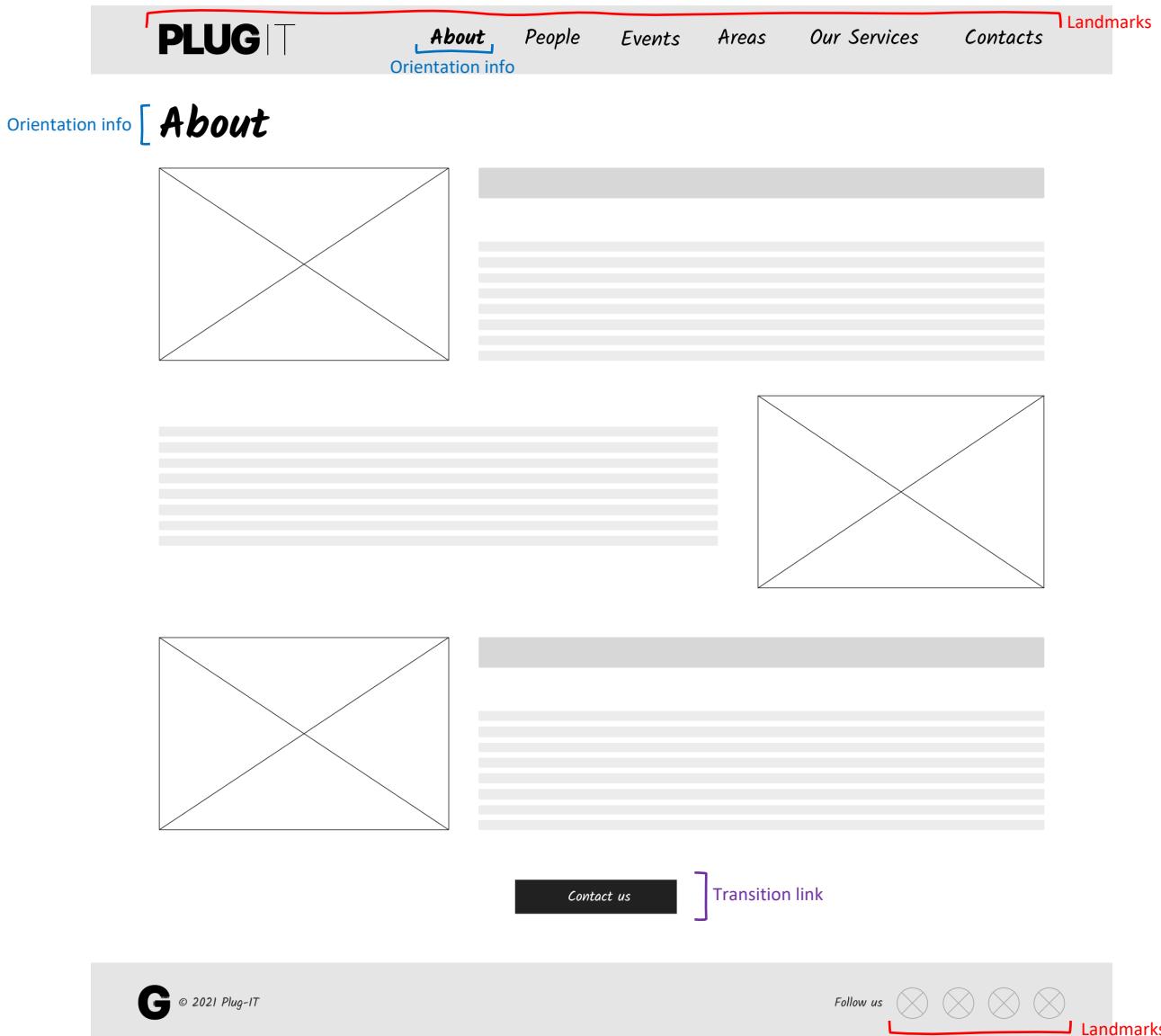
Prototype 1: Home Page

## 2.2. Single Topic Pages

This section describes the design choices relating to the *single topic pages*, the places where users consume contents about a single topic.

### 2.2.1. About Page

The primary purpose of the *About Page* is to inform the reader about the company and its operations. This website's section reports in less than 500 words the history of the organization and explains what the mission of *Plug-IT* is. The whole content is organized in several paragraphs. Finally, at the bottom of the page, a *transition link* to the *Contacts* topic is provided.



Wireframe 2 – Single Topic Page: About Page

**PLUGIT**

About People Events Areas Our Services Contacts Landmarks

Orientation info

**About**



### Our History

Created by the merger of CSC and the Enterprise Services business of Hewlett Packard Enterprise, Plug-IT boasts a long and proud history of innovation, service and value.

- In 1959, **Electronic Data Systems** was founded in Dallas, Texas, by Ross Perot. EDS, a pioneer in IT outsourcing, grew from Perot's initial \$1,000 investment to a global enterprise that helped 500 million passengers board planes and processed 13 billion credit card transactions. Hewlett Packard acquired Electronic Data Systems in 2008.

With around **\$20 billion** in annual revenues and nearly 6,000 customers in more than **70 countries**, Plug-IT is uniquely positioned to lead business transformations — creating greater value for customers, partners and shareholders as well as presenting new growth opportunities for its people.



### Our Values

Plug-IT runs **mission-critical systems** with the latest technology innovations to deliver better business outcomes and new levels of performance, competitiveness and experiences for our customers.

The criticality of the IT estate is top of mind for customers across all industries. They need to manage previous investments in enterprise infrastructure and also move some of their IT estate to the cloud.

Our **focus is on IT modernization** including on-premises and cloud, data-driven operations and workplace modernization. Plug-IT is in a perfect position to help customers manage their IT estate with the scope and scale of services in the Enterprise Technology Stack.



Contact us

Transition link

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Prototype 2 – Single Topic Page: About Page

## 2.2.2. Contacts Page

The page dedicated to the *Contact* topic has the goal of encouraging website visitors to get in touch with the company. For this purpose, it is composed of two blocks. At the top, there is an interactive map on which the location of the *Plug-IT* headquarter is marked. The phone number, the fax contact, and the full address are also provided alongside.

The lower part of the page, instead, consists of a form through which a customer can directly send a message to the administrative offices.

Orientation info

**Contacts**

---

**Get in touch**

Name  
Surname  
Email  
Message

Send message

© 2021 Plug-IT

Follow us

Landmarks

Wireframe 3 – Single Topic Page: Contacts Page

**PLUG IT**

About People Events Areas Our Services **Contacts** Landmarks

Orientation info [ Contacts ] Landmarks

**Contacts**

**Plug-IT Headquarter**

Via Valtellina, 110  
20144 Milano, Italia

Tel: +39 334 7711504  
Fax: +39 011 7400016

**Our Offices**

**Get in touch**

Name \*

Surname \*

Email \*

Message \*

Accept privacy policy and terms of service \*

Accept the use of the provided data for commercial and marketing purposes

> Send message

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Prototype 3 – Single Topic Page: Contacts Page

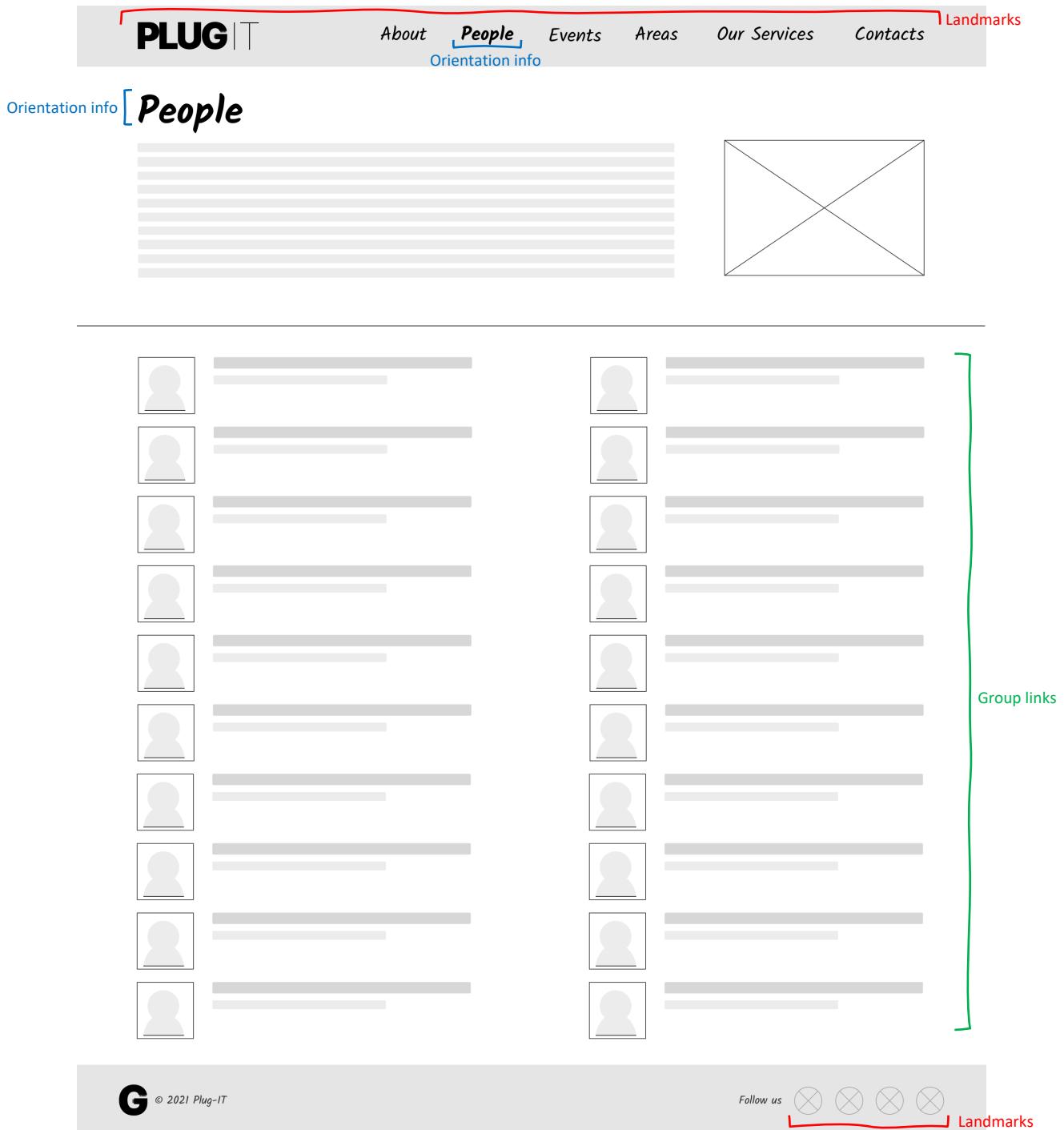
## 2.3. Introductory Pages

This chapter presents the design choices related to the *introductory pages*, the places where users understand what a group is about and who its members are.

### 2.3.1. People Page

The *people introductory page* consists of a short text introducing the team in general. A brief description of the principles that unite its members is also provided in this section.

The core of the page consists of a grid of *group links* to the individual employee pages. Each element of the grid includes a photo of the employee, his full name, and the position he holds at *Plug-IT*. The navigation among the group members is organized according to the *index pattern*.



Wireframe 4 - Introductory Page: People Page

**Orientation info**

**People**

Plug-IT is made up of talented individuals who share a **passion** for achieving the best in everything they do. Our team puts **our clients first**, with a relentless focus on championing bold ideas that help them achieve the extraordinary.

In every office, on every team, you'll find passionate, collaborative people who care for you and your success. We take a proactive approach to helping you develop a strategy to address your goals and objectives, using the most efficient methods available.

**Konrad Baird**  
Chief Executive Officer

**Kaleem Franklin**  
Chief Operating Officer

**John Grey**  
Web Designer

**Emma-Louise Hancock**  
Cloud Software Developer

**Jacob Hill**  
IT Manager

**Bilaal Lancaster**  
Business Intelligence Developer

**Maliha Patel**  
AI Data Analyst

**James Robson**  
Junior User Interface Designer

**Phil Schiller**  
Big Data Engineer

**Wilfred Tang**  
Senior Security Specialist

**Sophia Davies**  
Chief Technology Officer

**Conna Giles**  
Junior Security Specialist

**Megan Hall**  
Junior Software Developer

**Fallon Hayden**  
Psychologist

**Lisa Jackson**  
IoT Infrastructure Architect

**Cindy Obrien**  
Information Security Analyst

**Andrea Perica**  
Senior Software Developer

**Daniel Roy**  
User Interface Designer

**Elizabeth Smith**  
Senior Software Developer

**Isaac Walsh**  
Business Analyst

**Follow us:**

**Landmarks**

## 2.3.2. Areas Page

The *areas introductory page* consists of a grid of *group links* to the pages of the individual areas. The navigation between them is organized according to the *index pattern*. Each element of the grid consists of an illustrative photo, the name of the area and brief description.

This wireframe shows the introductory page for the 'Areas' section. At the top, there's a navigation bar with links for About, People, Events, **Areas**, Our Services, Contacts, and Landmarks. Below the navigation is a 'Orientation info' section containing a large 'Areas' heading and three group links, each represented by a square icon with an 'X' and a horizontal bar. A green bracket on the left side groups these three items under 'Group links'. At the bottom, there's a footer with a logo, copyright information, social media links for Follow us (Facebook, Twitter, LinkedIn), and a Landmarks section.

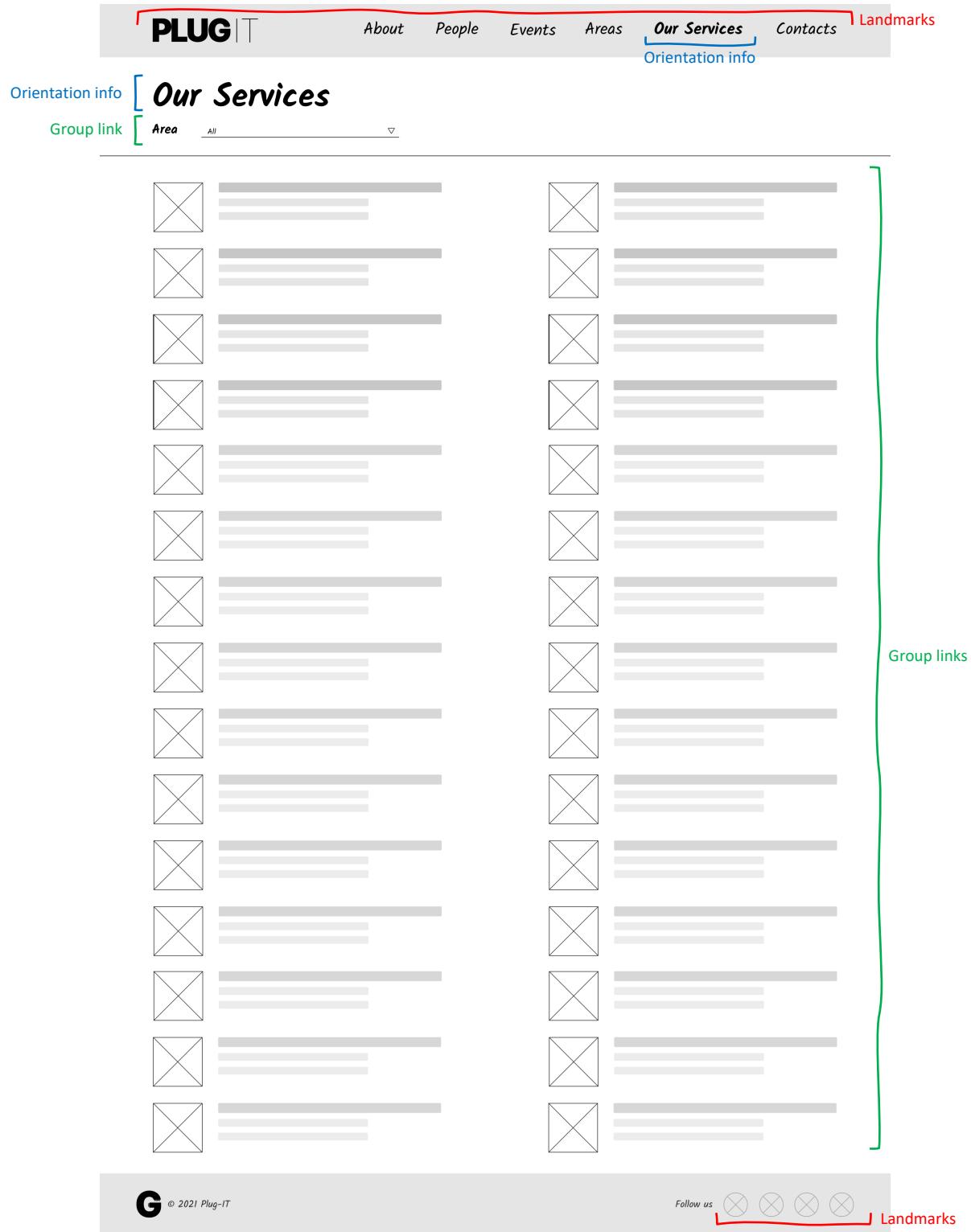
Wireframe 5 -Introductory Page: Areas Page

This prototype shows the introductory page for the 'Areas' section. It has a similar layout to the wireframe, with a navigation bar at the top and an 'Orientation info' section below it. The 'Areas' heading is highlighted with a blue bracket. Below the heading are five group links, each with an icon and a title: Artificial Intelligence, Business Management, Education, Internet of Things, and Security. A green bracket on the left side groups the first four items under 'Group links'. At the bottom, there's a footer with a logo, copyright information, social media links for Follow us (Facebook, Twitter, LinkedIn), and a Landmarks section.

Prototype 5 - Introductory Page: Areas Page

### 2.3.3. Our Services Page

The *Our Services introductory page* consists of a grid of *group links* to the pages of the individual services. As previously defined in the PIDM, the navigation between them is organized according to the *index pattern*. Each element of the grid consists of an illustrative photo, the name of the service and the area to which it belongs. In addition, there is also a very short sentence that allows customers to quickly understand what the service consists of. Finally, a dropdown menu allows users to filter services based on the area of interest.



Wireframe 6 - Introductory Page: Our Services Page

**PLUGIT**

About People Events Areas **Our Services** Contacts Landmarks

Orientation info Our Services

Group link Area All areas

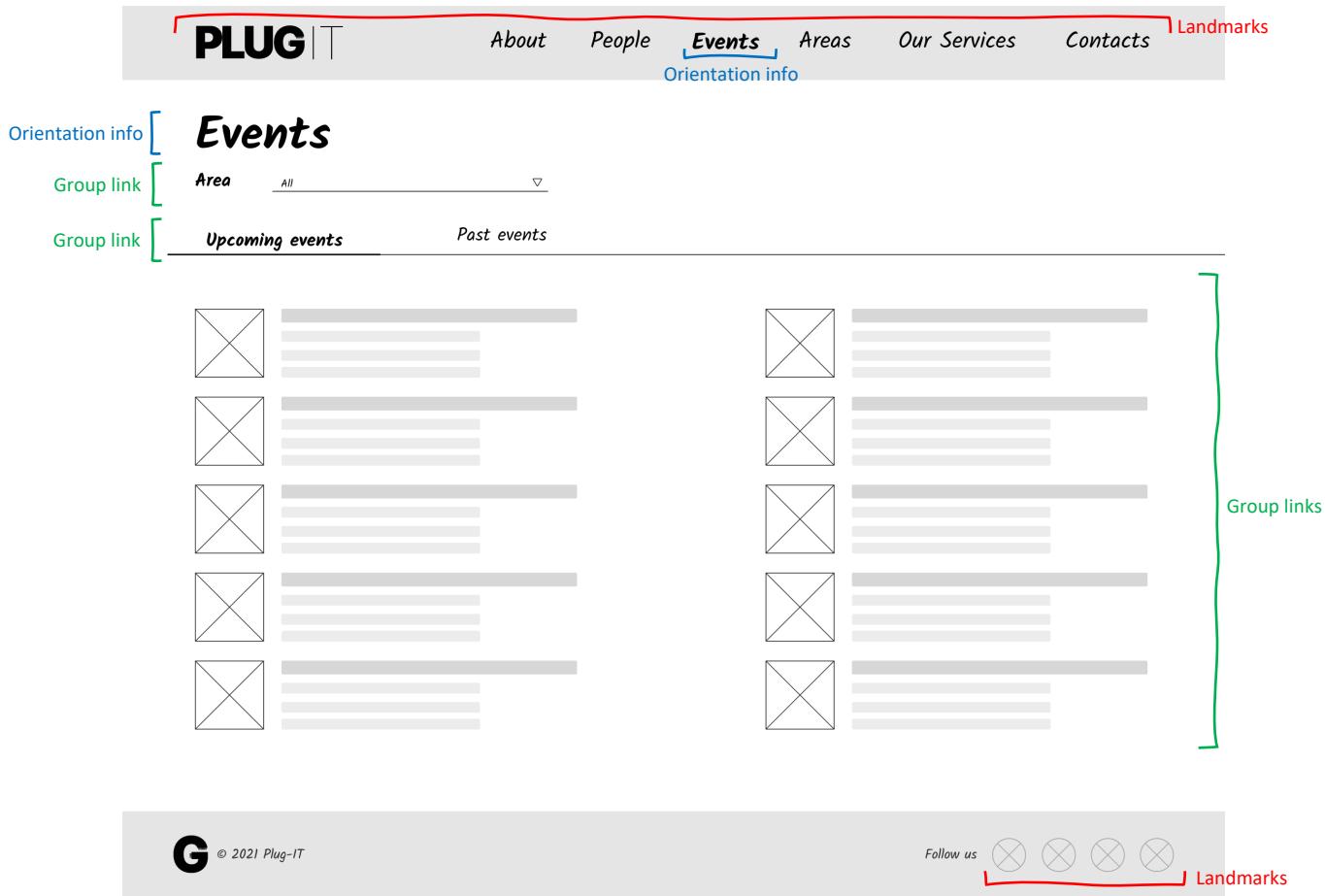
 <b>AIP+</b> ⇒ Artificial Intelligence <span style="color:#9900ff;">█ Transition link</span> Modular, pre-integrated AI services and capabilities	 <b>Artificial Intelligence Services</b> ⇒ Artificial Intelligence <span style="color:#9900ff;">█ Transition link</span> All AI Services in One
 <b>Classroom</b> ⇒ Education <span style="color:#9900ff;">█ Transition link</span> Get more time to teach and inspire learners	 <b>Classter</b> ⇒ Education <span style="color:#9900ff;">█ Transition link</span> All-in-one information management system for your K12 school
 <b>Connected Vehicles</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Connect drivers and vehicles to optimize the in-car experience	 <b>Conversational AI</b> ⇒ Artificial Intelligence <span style="color:#9900ff;">█ Transition link</span> Scale operations, reduce costs and improve employee productivity
 <b>Data-driven reinvention</b> ⇒ Artificial Intelligence <span style="color:#9900ff;">█ Transition link</span> Data at its core becomes the ultimate competitive asset and differentiator	 <b>Firewall</b> ⇒ Security <span style="color:#9900ff;">█ Transition link</span> The Best Protection to Stop Unknown Threats Dead
 <b>IHC – home IoT hub on cloud</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Do more with the things you love	 <b>Industrial IoT</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Improve your industry and make it more efficient
 <b>IoT for Smart Cities</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Smart cities for smarter life	 <b>IoT Product develop</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Together we can make it
 <b>IT consulting for Education</b> ⇒ Education <span style="color:#9900ff;">█ Transition link</span> You take on the classroom. We manage IT.	 <b>IT Security Integration and Support</b> ⇒ Security <span style="color:#9900ff;">█ Transition link</span> We support you doing your best doing our best
 <b>Microsoft Dynamics 365</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> Smart business application portfolio from Microsoft	 <b>Mobile</b> ⇒ Security <span style="color:#9900ff;">█ Transition link</span> Security in your pocket
 <b>Parcel CRM</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> The CRM designed for the process industries	 <b>Parcel ERP</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> The ERP designed for the process industries
 <b>Shifting toward Enterprise-grade AI</b> ⇒ Artificial Intelligence <span style="color:#9900ff;">█ Transition link</span> Bring exponential competitive advantage to your company	 <b>SmartBlackboard</b> ⇒ Education <span style="color:#9900ff;">█ Transition link</span> Bring learning to life
 <b>Smart Healthcare</b> ⇒ Internet of Things <span style="color:#9900ff;">█ Transition link</span> Make the healthcare environment more secure and convenient	 <b>Wireless</b> ⇒ Security <span style="color:#9900ff;">█ Transition link</span> WireLess doesn't mean less secure
 <b>Zucchetti ERP</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> Your small business, your great success	 <b>Zucchetti ERP+</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> Everything you need for a successful business
 <b>Zucchetti HR Semplice</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> HR management and administration in the 4.0 era	 <b>Zucchetti HR Semplice+</b> ⇒ Business Management <span style="color:#9900ff;">█ Transition link</span> Advanced management and administration tool

Group links

## 2.3.4. Events Page

The *Events introductory page* consists of a grid of *group links* to the pages of the individual events. Each element of the grid consists of an illustrative photo, the name of the event, the date on which it will be held and the area to which it belongs. In addition, there is also a brief overview that allows customers to quickly understand what it is about.

Finally, a dropdown menu allows users to filter events based on the area they are associated with. In any case, the navigation between the pages of the individual events is organized according to the *index pattern*.



Wireframe 7 - Introductory Page: Events Page

**PLUG IT**

About People **Events** Areas Our Services Contacts **Landmarks**

Orientation info

**Events**

Group link Area All areas

Group link Upcoming Events Past Events

	<b>How to better protect and empower our kids</b> ↳ Education 2021-09-12, 11:00  Digital opportunities and challenges for families in the time of COVID-19		<b>Algorithm Conference 2021</b> ↳ Artificial Intelligence 2021-09-15, 08:30  A conference that will feature no-pitch, high-level workshops and presentations that demonstrate how algorithms are shaping every aspect of our lives.
	<b>Implementing Group Work in the Classroom</b> ↳ Education 2021-10-21, 11:30		<b>The IoT and the mmWave Frontier</b> ↳ Internet of Things 2021-10-26, 10:30  Explore the potential of the newest IoT
	<b>Process Automation in the digital experience sector</b> ↳ Artificial Intelligence 2021-11-04, 11:00  Learn where possible use cases for intelligent process automation in Digital Experience lie.		<b>Simplifying IT Security as a Service</b> ↳ Security 2021-11-12, 10:30  What are the cybersecurity potential and opportunities for MSPs?
	<b>Teaching 2.0</b> ↳ Education 2021-12-12, 10:30  Learn how to improve the quality and the effectiveness of both online and traditional lessons.		<b>Digital Education Transformation</b> ↳ Education 2021-12-12, 16:00  Building Resilience in the Education Area
	<b>Healthcare cybersecurity</b> ↳ Security 2022-02-14, 11:30  Healthcare organisations are a growing target for hackers: 63% of IT managers experienced an increase in cyberattacks over 2020.		<b>ePlug ConnectedWorld</b> ↳ Internet of Things 2022-02-20, 08:30  Meet and share ideas with the IoT experts who create connected products and solutions invented for life.

Group links

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Follow us:    **Landmarks**

Prototype 7 - Introductory Page: Events Page

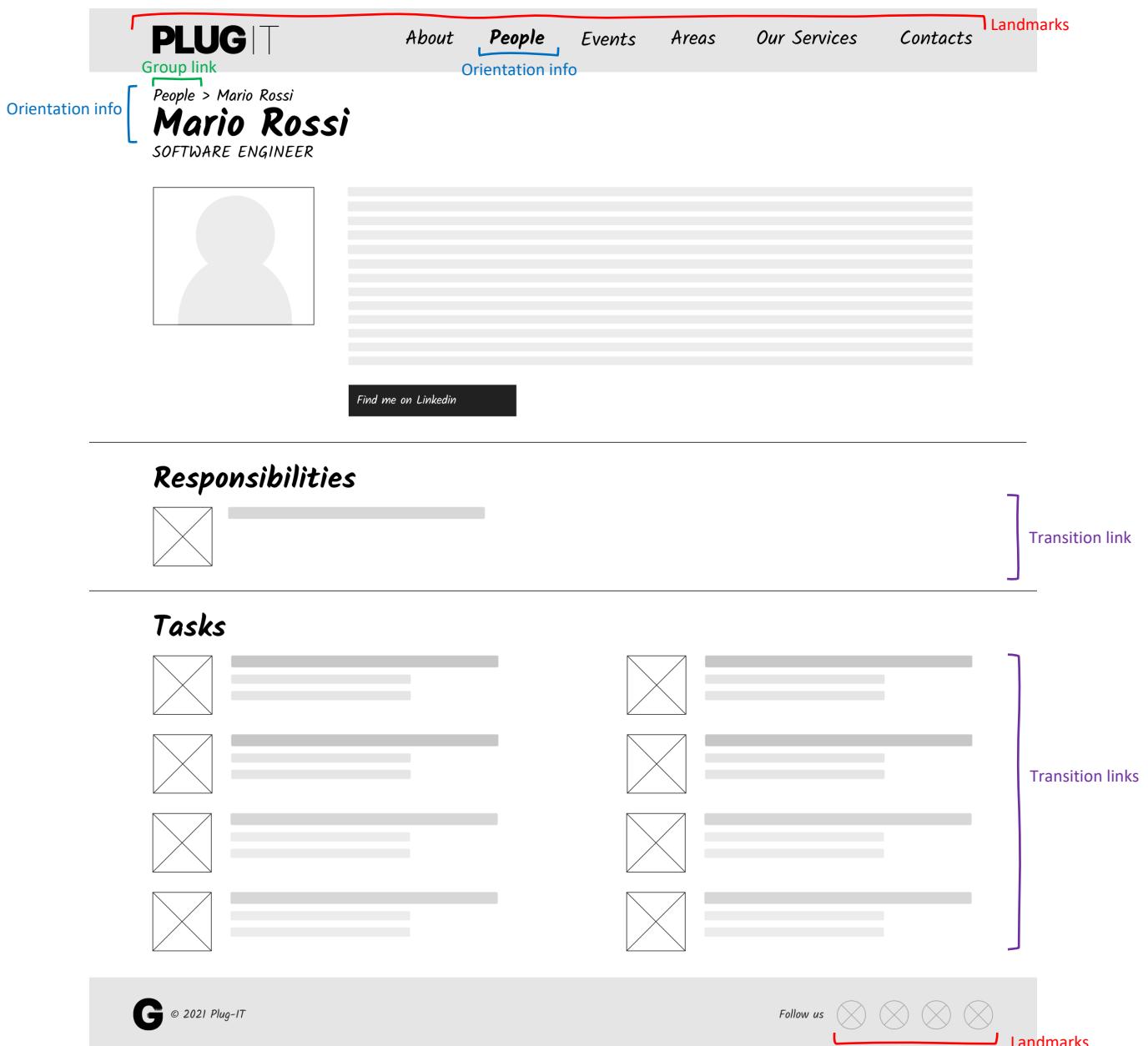
## 2.4. Multiple Topic Pages

This section describes the design choices relating to the *multiple topic pages*, the places where users consume contents about topics of a given kind.

### 2.4.1. Person Page

The *Person page* is intended to provide information relating to an individual *Plug-IT* employee. The full name of the worker and the position held within the company are provided below the breadcrumb. At the top of the page, it is shown a photo of the employee and his biography. In the lower part, instead, all the activities in which the person is involved are listed. In particular, if the worker is responsible for an area, a “Responsibilities” section is shown containing a *transition link* to the related area page.

All the *transition links* to the services in which the person works are then shown in a grid view. For each of them is displayed an illustrative picture, the name of the service and its slogan. In addition, for each service, is reported the area to which it belongs. The latter represents a *transition link* to the dedicated page.



Wireframe 8 - Multiple Topic Page: Person Page

**PLUGIT**

About People Events Areas Our Services Contacts Landmarks

People > Lisa Jackson

**Lisa Jackson**  
IOT INFRASTRUCTURE ARCHITECT



Lisa Jackson is a lot Infrastructure Architect. Lisa oversees the development of IoT and security fields. His teams are responsible for delivering the software at the heart of Plug-IT's innovative products, including the user interface, applications and frameworks. Lisa returned to Plug-IT in 2009 to lead security systems engineering, and in 2012 took on responsibility for IoT as well.

Prior to his return, Lisa worked at NeXT, followed by Plug-IT, and then spent a decade at Ariba, an internet e-commerce pioneer where he held several roles including chief technology officer.

Lisa holds a Master of Science degree in Computer Science and a Bachelor of Science in Electrical Engineering and Computer Science from the University of California, Berkeley.

[Find me on LinkedIn](#)

---

**Responsibilities**

 **Internet of Things**  
Area Responsible

**Services**

	<b>IHC – home IoT hub on cloud</b> ⇒ Internet of Things Role: Project Manager		<b>Connected Vehicles</b> ⇒ Internet of Things Role: IoT Infrastructure Architect
	<b>Industrial IoT</b> ⇒ Internet of Things Role: IoT Infrastructure Architect		<b>IoT for Smart Cities</b> ⇒ Internet of Things Role: IoT Infrastructure Architect
	<b>IoT Product develop</b> ⇒ Internet of Things Role: IoT Infrastructure Architect		<b>Smart Healthcare</b> ⇒ Internet of Things Role: IoT Infrastructure Architect
	<b>Zucchetti ERP+</b> ⇒ Business Management Role: IoT Infrastructure Architect		<b>Zucchetti HR Semplice+</b> ⇒ Business Management Role: IoT Infrastructure Architect

Follow us:    Landmarks

## 2.4.2. Area Page

The *Area page* represents the space in which the user is informed about a specific field in which the company operates. For this page, the goal is to explain what the challenges and objectives in this sector are.

The core of the page consists of a sequence of sections in which all the details relating to the area are explained. For each paragraph, there are also some illustrative images.

Below, there is a button to reach the *transition page* relating to the team working in that specific area (*Area Team Page*).

Finally, in the lower part of the page, all the area's services offered by *Plug-IT* are listed. For each of them, an illustrative image, the name of the service and its slogan are displayed. This content is organized in a grid view of *transition links*.

**PLUG IT**

About    People    Events    Areas    Our Services    Contacts    Landmarks

Group link

Orientation info

Areas > Artificial Intelligence

# Artificial Intelligence

Discover our Artificial Intelligence Team

Transition link

Our Artificial Intelligence Services

Follow us

Landmarks

**PLUGIT**

About People Events **Areas** Our Services Contacts **Landmarks**

**Group link** Areas > Artificial Intelligence **Orientation info**

**Orientation info**

**Artificial Intelligence**



**Artificial intelligence** is a constellation of many different technologies working together to enable machines to *sense, comprehend, act, and learn* with human-like levels of intelligence.

The proliferation of data and the maturity of other innovations in cloud processing and computing power, AI adoption is growing faster than ever. Companies now have access to an unprecedented amount of data, including dark data they didn't even realize they had until now. These treasure troves are a boon to the growth of AI.

The important question is: *how do you do it?* That's where **Applied Intelligence** comes in. It's our unique approach to scaling AI, analytics and automation — and the data that fuels it all — to power every single person and every single process.

Our global team of experts work with you to invest in the right **scalable solutions and services** to help you achieve your business objectives faster. And we facilitate cultural changes to help your workforce use data and AI to deliver continuous innovation and growth.

**Discover our Artificial Intelligence Team**



**Transition link**

---

**Our Artificial Intelligence Services**

	<b>AI+</b> Modular, pre-integrated AI services and capabilities		<b>Artificial Intelligence Services</b> All AI Services in One
	<b>Conversational AI</b> Scale operations, reduce costs and improve employee productivity		<b>Data-driven reinvention</b> Data at its core becomes the ultimate competitive asset and differentiator
	<b>RegTech</b> Manage risk and regulatory challenges with RegTech		<b>Shifting toward Enterprise-grade AI</b> Bring exponential competitive advantage to your company

**Transition links**

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Follow us:    **Landmarks**

Prototype 9 - Multiple Topic Page: Area Page

## 2.4.3. Service Page

The *Service page* has the goal of presenting in detail the solution offered by *Plug-IT* to deal with a problem or a need. Below the *breadcrumb*, the service's name and a *transition link* to the related area page are shown.

The core of the page consists of a sequence of paragraphs in which all the details relating to the service and its characteristics are explained. For each paragraph, some illustrative images are also displayed. Below this section, it is shown a button to reach the *transition page* related to the team working on the service (*Service Team Page*).

Finally, at the bottom of the page, there is a form to contact the company and get even more information about the service.

PLUG IT  
Group link

About People Events Areas **Our Services** Contacts Landmarks

Orientation info Orientation info

Our Services > SmartBlackboard

**SmartBlackboard**

Transition link EDUCATION

Discover our SmartBlackboard Team

If you are interested in this service, please contact us

Name

Surname

Email

Message

Send message

G © 2021 Plug-IT

Follow us Landmarks

Wireframe 10 - Multiple Topic Page: Service Page

**PLUGIT**

Group link      Orientation info      Transition link

About People Events Areas **Our Services** Contacts      Landmarks

Our Services > SmartBlackboard

## SmartBlackboard

EDUCATION

Bring learning to life



Spark students to learn, collaborate, and engage in active new ways with the SmartBlackboard mobile app or 55-inch cloud-powered whiteboard. SmartBlackboard is a digital whiteboard that offers a rich collaborative experience for teams and classrooms. Watch your creativity unfold: you can create a blackboard, edit it from your device, and share it with others. Everybody can collaborate on the blackboard anytime, anywhere.

Educators can engage all students in the learning process, whether working together in a traditional classroom, a group seminar setting, or through distance learning. The SmartBlackboard app for Android and iOS makes it easy for students and educators to join in.

For businesses and schools that use our SmartScreen, you can use your iPhone or iPad to join or open a blackboard on a nearby board.

**Key features:**

- Draw with various pens and colours to bring your ideas to life.
- Share blackboards and work together with others in the same blackboard in real time.
- Add sticky notes to brainstorm ideas together.
- Bring your blackboard to life by inserting photos and stickers.
- Import files from cloud to annotate documents together.
- Highlight objects with the laser pointer tool.



Transition link

[Discover our SmartBlackboard Team](#)

---

If you are interested in this service, please contact us

Name *	<input type="text"/>
Surname *	<input type="text"/>
Email *	<input type="text"/>
Message *	<input type="text"/>

Accept privacy policy and terms of service \*

Accept the use of the provided data for commercial and marketing purposes

**> Send message**

**G** © 2021 Plug-IT

Follow us:    Landmarks

Prototype 10 - Multiple Topic Page: Service Page

## 2.4.4. Event Page

The *Event page* shows all the details related to a specific event.

Below the breadcrumb, it is shown the name of the event and a *transition link* to the page of the area to which it is associated. Then, it follows a description of the event and the covered topics. Furthermore, it is displayed a set of *transition links* to the personal profiles of the hosts who will take part in the event.

Finally, the page shows an interactive map explaining where the event will be held with the full address of the location. The start date and time are also reported alongside.

At the bottom of the page, there is a contact form to get even more information about the event.

The wireframe illustrates the layout of the Event Page:

- Header:** Features a logo "PLUG IT" with a "Group link" icon, and a navigation bar with links: About, People, **Events**, Areas, Our Services, Contacts, and Landmarks. The "Events" link is underlined.
- Breadcrumb:** Shows the path: Orientation info > Events > Plug-IT @IoT Tech Expo 2021.
- Section Headers:** "Plug-IT @IoT Tech Expo 2021" and "INTERNET OF THINGS".
- Hosts:** A section listing two hosts, each represented by a placeholder profile picture and a redacted name.
- Details:** A large rectangular area for event details, currently marked with a large "X".
- Contact Form:** A form titled "If you are interested in this event, please contact us" with fields for Name, Surname, Email, and Message, along with two checkboxes and a "Send message" button.
- Footer:** Includes the copyright notice "© 2021 Plug-IT", social media icons for "Follow us" (Facebook, Instagram, Twitter, LinkedIn), and a "Landmarks" link.

Wireframe 11 - Multiple Topic Page: Event Page

**PLUGIT**

About People **Events** Areas Our Services Contacts

Landmarks

Group link Orientation info Transition link

Events > Plug-IT @IoT Tech Expo 2021

**Plug-IT @IoT Tech Expo 2021**

INTERNET OF THINGS

Plug-IT will take part also this year to IoT Tech Expo 2021, the world famous conference about IoT.

We are proud to announce our participation also this year to IoT Tech Expo 2021.

IoT Tech Expo will bring together key industries from across the globe for two days of top-level content and thought leadership discussions across 5 co-located events covering IoT, 5G, Cyber Security & Cloud, Blockchain, AI & Big Data and the newly added Digital Transformation track. In addition to cutting edge content, the IoT Tech Expo enables key networking opportunities from virtual meetings to on-site lounges and the official networking party. For more information, get in touch! 5,000 attendees are expected to congregate from around the world including CTO's, Heads of Innovation and Technology, IT Directors, Telecom Providers, Developers, Start-Ups, OEMs, Government, Automotive, Operators, Technology Providers, Investors, VCs and many more.

The Expo will showcase the most cutting-edge technologies from more than 125 exhibitors.

The event will be mainly about exploring the latest challenges, opportunities and innovations within the Internet of Things and covering the impact it has across industry sectors.

---

**Hosts**

**Jacob Hill**  
IT Manager

**Bilaal Lancaster**  
Business Intelligence Developer

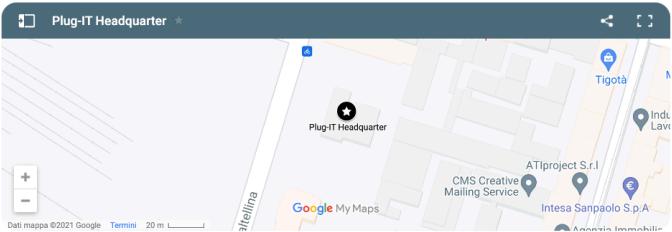
Transition links

---

**Details**

**Where**  
Via Valtellina, 110 - Milan

**When**  
On 2021-07-18, at 08:00



If you are interested in this event, please contact us

Name *	<input type="text"/>
Surname *	<input type="text"/>
Email *	<input type="text"/>
Message *	<input type="text"/>

Accept privacy policy and terms of service \*  
 Accept the use of the provided data for commercial and marketing purposes

> Send message

Follow us:    Landmarks

Prototype 11 - Multiple Topic Page: Event Page

## 2.5. Transition Pages

This chapter presents the visual design choices related to the *transition pages*, the place where users see the list of topics related to a given page.

### 2.5.1. Area Team Page

The *Area Team transition page* displays a set of *transition links* to the personal pages of employees working in a specific area. For each person, the photo, the full name, and the position held in the company are provided. The first link in the grid is the one relating to the area responsible.

Orientation info

Artificial Intelligence > Artificial Intelligence Team

**Artificial Intelligence Team**

Area responsible

Transition links

About People Events Areas Our Services Contacts Landmarks

Orientation info

Follow us

Landmarks

© 2021 Plug-IT

Wireframe 12 - Transition Page: Area Team Page

**PLUG|IT**

About People Events **Areas** Our Services Contacts

Orientation info

Security > Security Team

## Security Team

	<b>Wilfred Tang</b> Area Responsible
	<b>Conna Giles</b> Junior Security Specialist
	<b>Cindy Obrien</b> Information Security Analyst
	<b>Elizabeth Smith</b> Senior Software Developer
	<b>Emma-Louise Hancock</b> Cloud Software Developer
	<b>Andrea Perica</b> Senior Software Developer
	<b>Isaac Walsh</b> Business Analyst

Orientation info

Follow us: **Landmarks**

Prototype 12 - Transition Page: Area Team Page

## 2.5.2. Service Team Page

The *Service Team transition page* displays a set of *transition links* to the personal pages of employees working on a specific service. For each person, the photo, the name, and the covered role are shown. The first link in the grid is the one relating to the project manager.

This wireframe shows the layout of the Service Team Page. At the top, there is a navigation bar with links for About, People, Events, Areas, Our Services (underlined), Contacts, Orientation info, and Landmarks. Below the navigation bar, the title "SmartBlackboard Team" is displayed. The main content area contains a grid of five user profiles. Each profile consists of a small photo, the name, and the role. A red bracket on the right side of the grid is labeled "Transition links". At the bottom, there is a footer with the Plug-IT logo, copyright information, social media links (Follow us: Facebook, Twitter, LinkedIn), and a Landmarks section.

Wireframe 13 - Transition Page: Service Team Page

This prototype shows the layout of the Service Team Page. It has a similar structure to the wireframe, with a navigation bar at the top and a "SmartBlackboard Team" title. The main content area features a grid of five user profiles. Each profile includes a photo, the name, and the role. A red bracket on the right side of the grid is labeled "Transition links". At the bottom, there is a footer with the Plug-IT logo, copyright information, social media links (Follow us: Facebook, Twitter, LinkedIn), and a Landmarks section.

Prototype 13 - Transition Page: Service Team Page

# 3. Interaction Scenarios

Use case scenarios exemplify how a typical user is going to use the application. An interaction scenario is a “story of use”; it describes a flow of user interactions across the website for users of a given profile having a specific goal. In the following, for each scenario, is presented a structured textual narrative and a graphical representation of the sequence of required actions. In each screenshot are highlighted the interactive elements activated by the user at each step.

## 3.1. Use Case 1

### 3.1.1. Textual narrative

<b>Name</b>	What about the efforts of <i>Plug-IT</i> in Education?
<b>Profile</b>	The <i>principal of a school</i> in Milan is considering improving the technological equipment of her institute.
<b>Goal</b>	She would like to know the services that <i>Plug-IT</i> offers and have an overview of the possible benefits they would bring.
<b>Context</b>	She visits the website from the computer of her office.
<b>Tasks</b>	<ul style="list-style-type: none"> <li>o. The <i>principal</i> accesses the <i>Home Page</i> of the website.</li> <li>1. Being interested in the Education area, she goes to the “<i>Area</i>” Page through the navigation bar. Here, she has an overview of the fields in which the company operates.</li> <li>2. The <i>principal</i> then selects the link to the “<i>Education</i>” Page. From this section, she discovers the potential of IT in schools and the multiple benefits that <i>Plug-IT</i> services would bring.</li> <li>3. This overview arouses her interest. She now wants to know in detail the proposed solutions. Therefore, she starts browsing the various services in the grid by visiting their respective pages.</li> </ul>

*Use Case 1: What about the efforts of Plug-IT in Education?*

### 3.1.2. Interaction flow



## 3.2. Use Case 2

### 3.2.1. Textual narrative

<b>Name</b>	An <i>IT manager</i> discovers a new service
<b>Profile</b>	The board of directors of HomeAppliances asked to improve post-sale support and make it feel more premium. The <i>IT manager</i> is in charge to do so.
<b>Goal</b>	He wants to find a way to make more personal and natural the interaction with the customers, to make them feel more engaged.
<b>Context</b>	He accesses the website from the desktop computer located in his office
<b>Tasks</b>	<ul style="list-style-type: none"> <li>o. The <i>IT manager</i> accesses the <i>Home Page</i> of the website.</li> <li>1. He clicks on “<i>Our Services</i>” to check whether there is a service which fits his needs.</li> <li>2. He realizes that AI solutions can help improve the quality of user-machine interaction and, in general, business indexes. For this reason, he decides to filter the services by area, selecting the Artificial Intelligence field.</li> <li>3. Among the results shown, he sees “<i>Conversational AI</i>”. From the description displayed below, he realizes that Conversational AI is created specifically for call centers, so it can be used in enterprise call centers, the place where the need for quality of user interaction is most emphasized. He then decides to click on the service to find out more.</li> <li>4. He reads the description of the service. The <i>IT manager</i> is enthusiast. He fills out the form, expressly requesting a demonstration of the product and its potential.</li> <li>5. He clicks on “<i>Send Message</i>” and sees the confirmation that the message has been sent.</li> </ul>

*Use Case 2: An IT manager discovers a new service*

### 3.2.2. Interaction flow



## 3.3. Use Case 3

### 3.3.1. Textual narrative

<b>Name</b>	Get in touch with <i>Plug-IT</i>
<b>Profile</b>	<i>Tessa</i> is the <i>manager</i> of a medium size IT distribution and support company. She is looking for solid partners to sell their products and services.
<b>Goal</b>	She wants to gather general information about Plug-IT and contact them. <i>Tessa</i> is particularly interested in the history and values of the company. She is evaluating whether Plug-IT could be a potential partner for her company.
<b>Context</b>	<i>Tessa</i> is browsing the website on her laptop. She has already checked Plug-IT services. She thinks they are interesting and can meet the needs of her customers. Therefore, she wants to know more about Plug-IT itself.
<b>Tasks</b>	<ul style="list-style-type: none"> <li>o. The manager is currently on the <i>Services Page</i>.</li> <li>1. She clicks on “<i>About</i>” on the header.</li> <li>2. She starts reading about Plug-IT history which dates up to 1959, making it one of the oldest IT companies out there. She is amused by the lecture and goes on reaching the “<i>Values</i>” section. She identifies herself in those values.</li> <li>3. Once <i>Tessa</i> has finished reading, she clicks on the “<i>Contact us</i>” button, reaching the <i>Contact Page</i>.</li> <li>4. She fills out the form, expressly requesting a demonstration of the product and its potential.</li> <li>5. The manager clicks on “Send Message” and sees the confirmation that the message has been sent.</li> </ul>

*Use Case 3: Get in touch with Plug-IT*

### 3.3.2. Interaction flow



## 3.4. Use Case 4

### 3.4.1. Textual narrative

<b>Name</b>	Finding out about an event
<b>Profile</b>	Anna is a young woman with an 8-year-old son. She is really interested in the world of technology.
<b>Goal</b>	She wants to find out about an event.
<b>Context</b>	<p>In this period, Anna's son is attending school lessons from remote due to the pandemic. Although she loves technology, she is not so enthusiast about it because she is concerned about the possible negative consequences.</p> <p>Anna is browsing Plug-IT website since she is a tech addict. She is using her gaming desktop computer.</p>
<b>Tasks</b>	<ul style="list-style-type: none"> <li>o. Anna is browsing Plug-IT website since she is a tech addict and likes to keep update with Plug-IT latest news and products.</li> <li>1. Her attention is captured by the “Event” section: she clicks on “Event” on the header</li> <li>2. She sees an upcoming event called “<i>How to better protect and empower our kids</i>”. She is a young mom so she would like to read more about it. She clicks on the event title.</li> <li>3. She reads the event’s description. She finds out that it is mainly about benefits and risks of children using the computer, with a particular focus to the current situation due to COVID-19. She read also the details about place and time of the event.</li> <li>4. She would like to know even more about it, so she fills the form to ask further questions about the organization of the event.</li> <li>5. She clicks on “Send Message” and sees the confirmation that the message has been sent.</li> </ul>

*Use Case 4: Finding out about an event*

### 3.4.2. Interaction flow





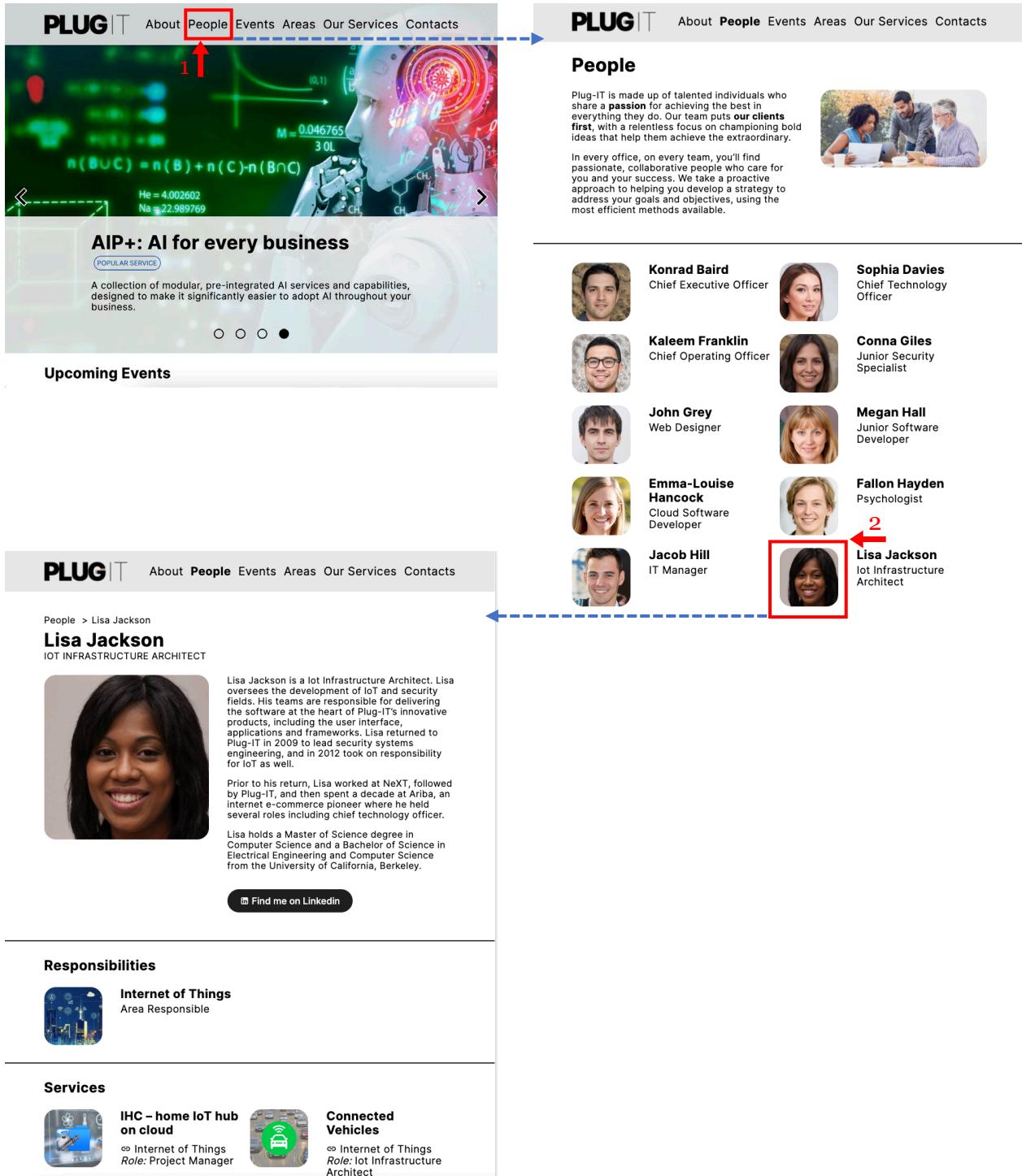
## 3.5. Use Case 5

### 3.5.1. Textual narrative

<b>Name</b>	Discovering the team
<b>Profile</b>	A <i>customer</i> is interested in the services that a <i>Plug-IT</i> employee has worked on.
<b>Goal</b>	He would like to know the services that a <i>Plug-IT</i> employee has worked on, and the role played in them.
<b>Context</b>	He visits the website from its tablet.
<b>Tasks</b>	<ul style="list-style-type: none"> <li>o. The <i>customer</i> accesses the <i>Home Page</i> of the website.</li> <li>1. Being interested in the team behind <i>Plug-IT</i>, he clicks on “<i>People</i>” in the navigation bar. Here, all employees are shown to him.</li> <li>2. Once he has found the employee he was looking for, he clicks on her photo. This leads him to the profile page, where in addition to the biography, he can find all the information about the areas and services in which the woman works.</li> </ul>

*Use Case 5: Discovering the team*

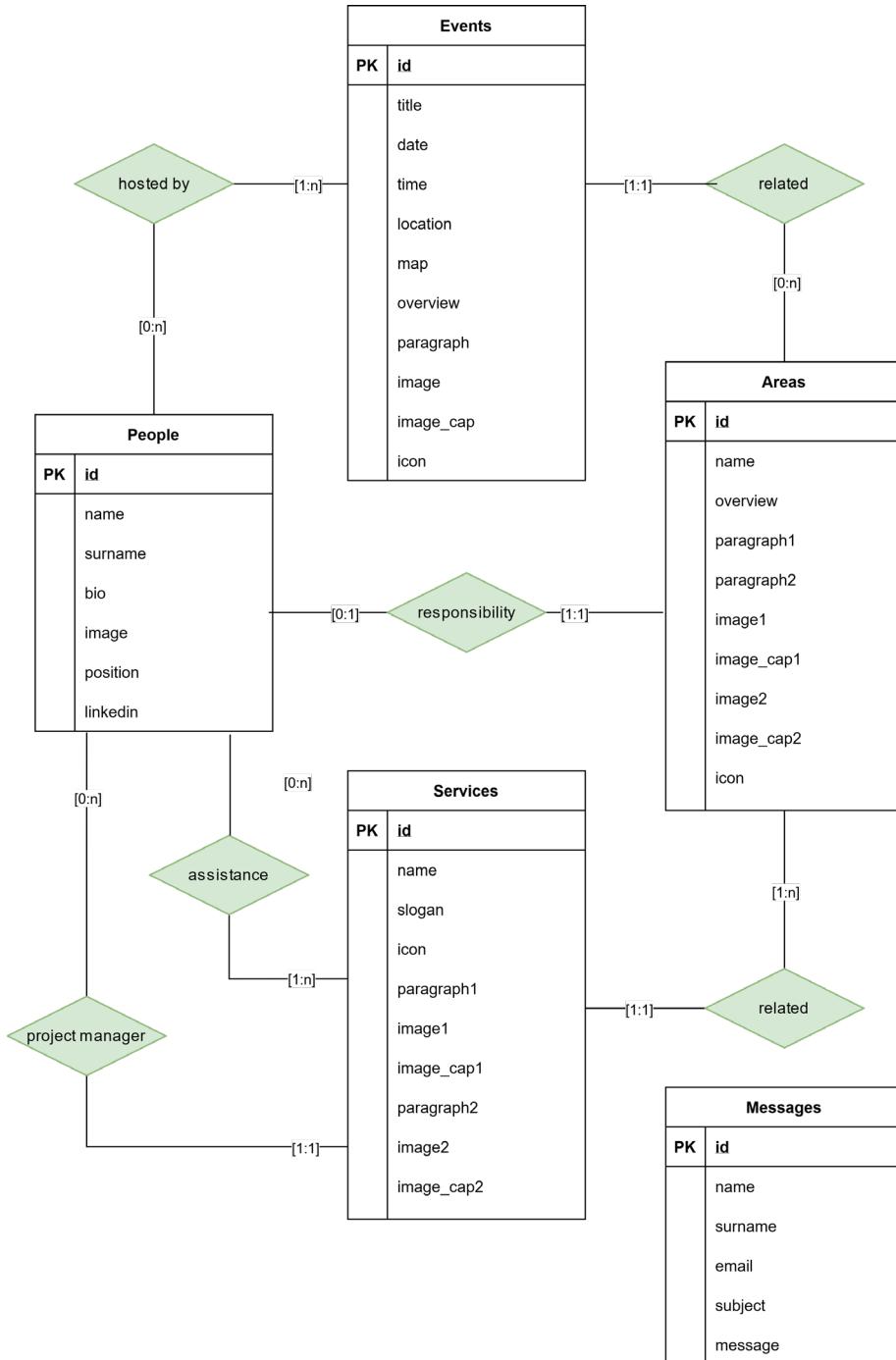
### 3.5.2. Interaction flow



# Database Design

This chapter provides details of the database design for the website to be implemented. First, the conceptual model will be represented through an *ER-diagram*. A tabular representation of the logical model will then be provided.

## 3.6. Entity-Relationship Diagram



ER Diagram

## 3.7. Relational Tables

