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Hypermedia Applications

Design Document

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1 Abstract

This document provides basic information on developing a voluntary association website providing all necessary information about services, events and people . IDM models (interactive dialogue model) define which are the main concept of the website (C-IDM), also providing a logical description of them (L-IDM) and pages structures (P-IDM). Furthermore the document contains some scenarios to better understand the main idea behind the an Entity Relationship diagram and a Logical Design schema to describe the structure of the database.

2 Graphical Representation

2.1 C-IDM

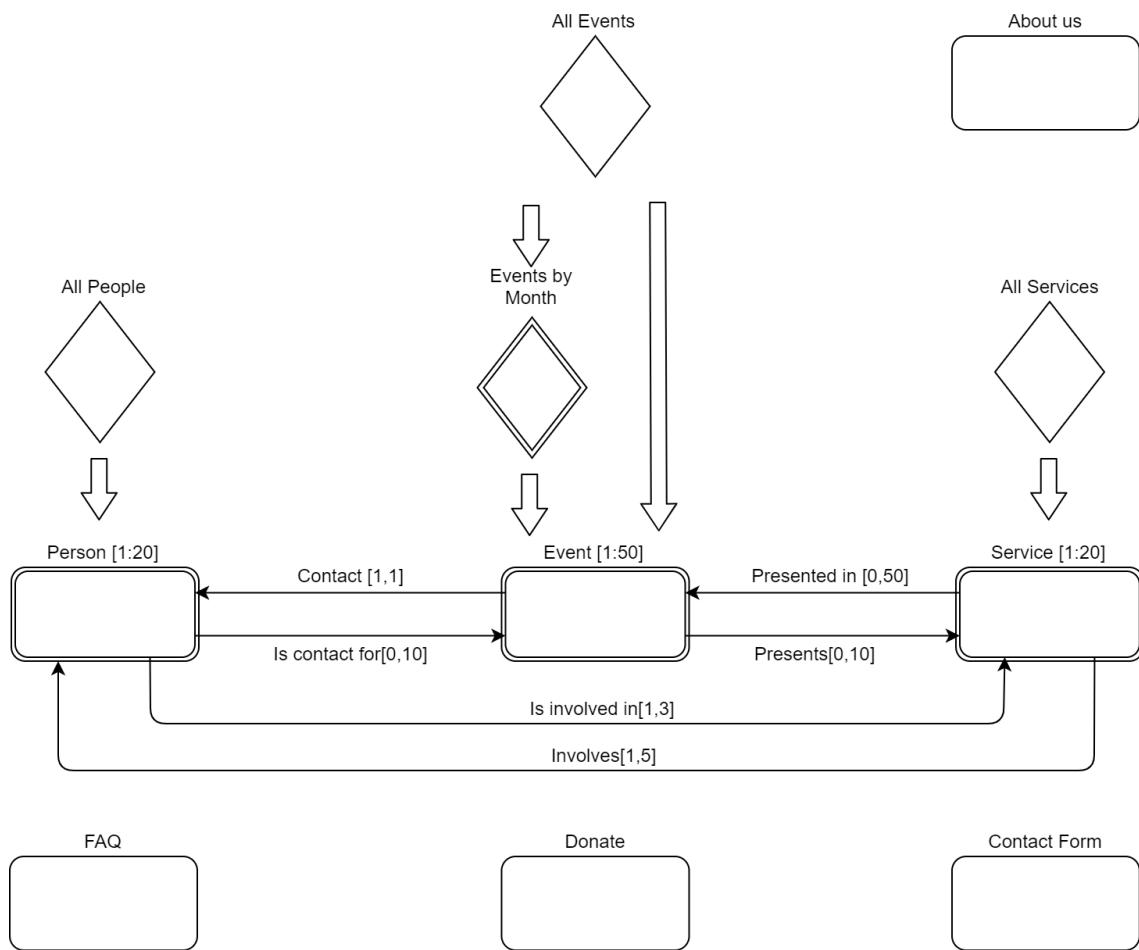


Figure 1: Content Interactive Dialogue Model

2.2 L-IDM

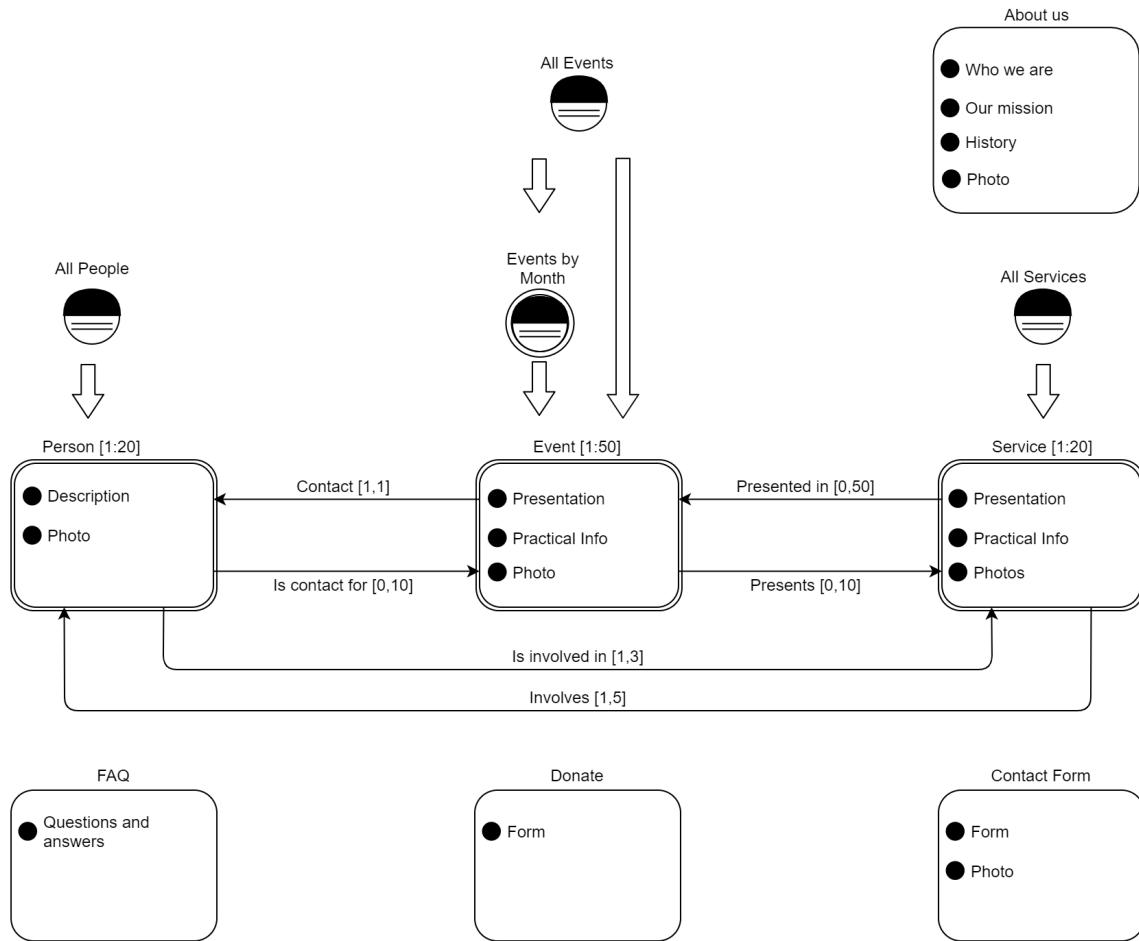


Figure 2: Logical Interactive Dialogue Model

2.3 P-IDM

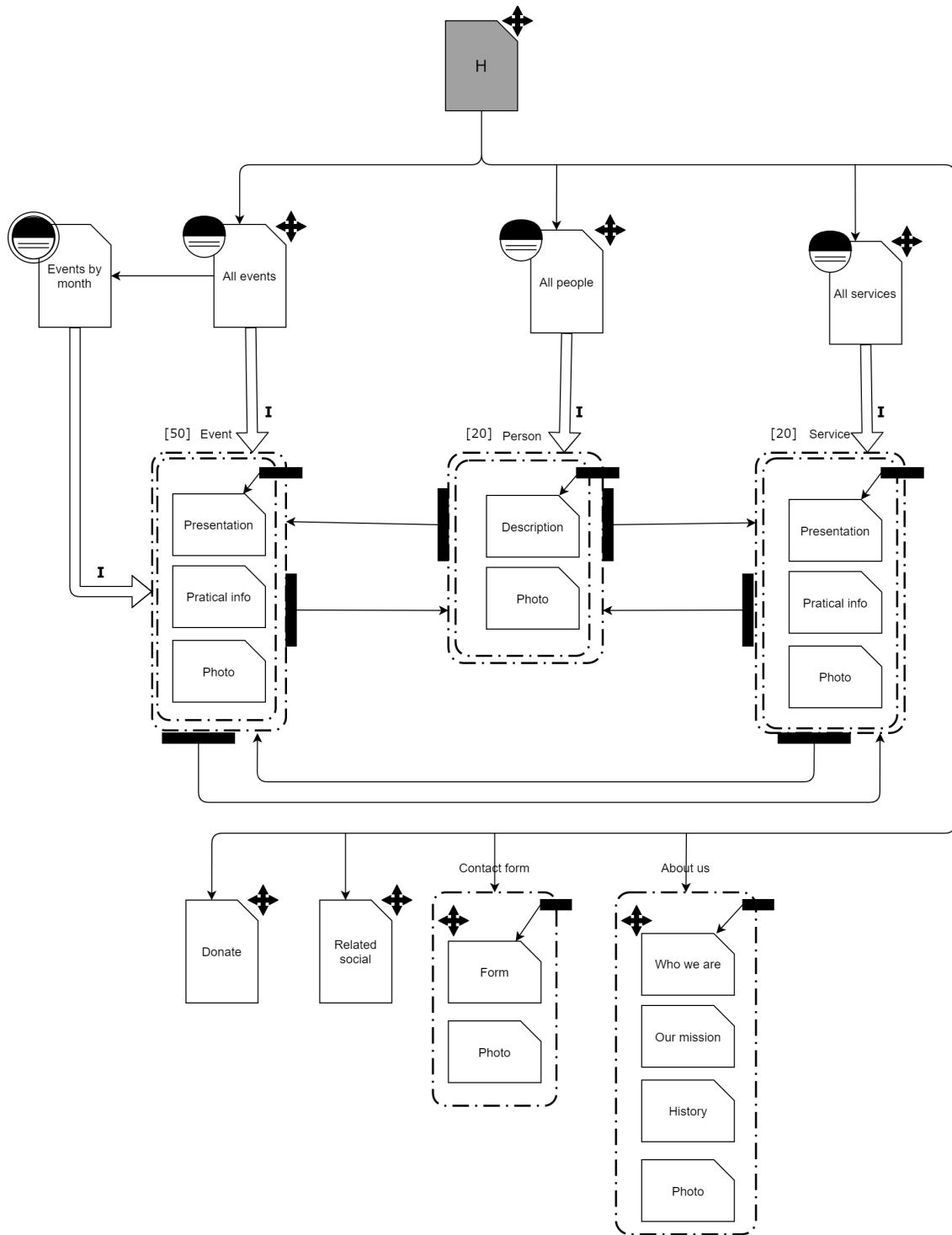


Figure 3: Page Interactive Dialogue Model

3 Scenarios

3.1 Case 1

An elementary school teacher that lives in Sondrio has always loved mountain fauna. One day she decides to bring her students in a trip to show them the beauty of those creatures, so she connects to the website.

First she learns some basics about the association, then she proceeds to search for an interesting event during the current month that presents several services involving different animals. When she finds the best event for what she is looking for, she contacts the volunteer responsible for that event to reserve a place for her class.

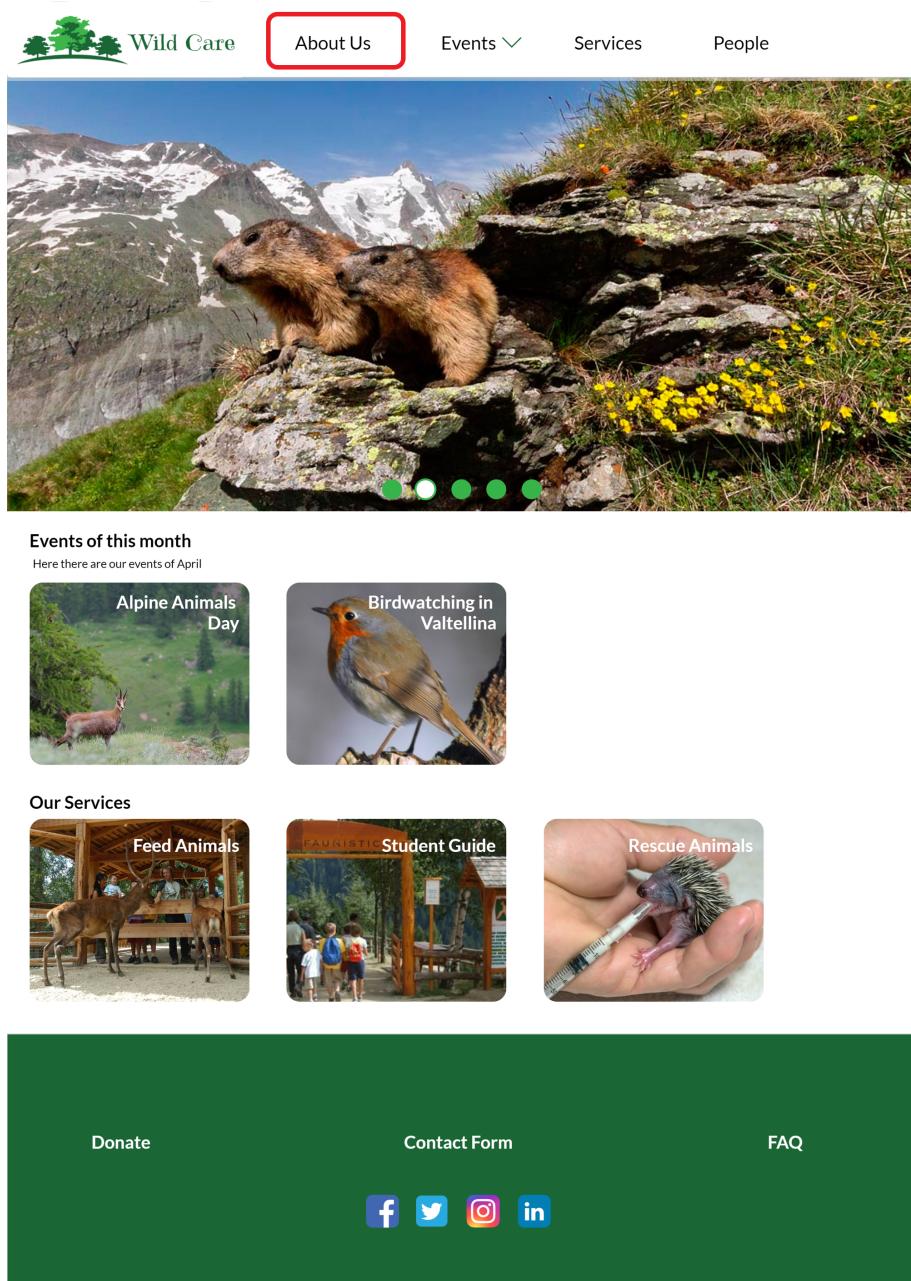


Figure 4: Selects about us from the home page.

Wild Care

About Us Events  Services People

/ About Us

Events

Events by Month

Here you can find some general info about our association

Menu <ul style="list-style-type: none"> Who we are Our Mission History 	 <p>Who we are</p> <p>We are an Italian Association born in October 2017 that has the aim to rescue wild alpine animals and sensitize people of all ages to save and appreciate this special fauna. Wild Care aims to free them from their suffering and, after thorough veterinary checks and assessment, rehabilitate and eventually release those that are physically and mentally equipped to fend for themselves in the wild. Those that are not viable for release will be given a permanent home in sanctuaries where they will be well cared for, well fed and have the freedom to express natural alpine animals behaviour.</p> <p>Our Mission</p> <p>Our vision is a world where humans and animals coexist in sustainable ecosystems. Our mission is to build awareness and implement effective systems such that habitats and animals are protected. At Wild Care we not only save animals from suffering, we also rehabilitate and release them back into the wild and work to protect their precious natural habitats.</p> <p>History</p> <p>We have successfully spent the last three years by trying to achieve the following goals in the Italian alpine environment:</p> <ul style="list-style-type: none"> • Develop awareness to create mutual collaboration and collective action to protect natural habitats and the wildlife therein. • Stimulate communities, government institutions and private stakeholders to take an active role in the management and protection of alpine woods. • Implement effective and/or innovative methods and approaches to reduce the trade in wild animals. • Ensure that animals remain safe in their habitat and that where/when appropriate, vulnerable animals are rescued
--	--

Donate **Contact Form** **FAQ**

Figure 5: Goes in the section events by month.

The screenshot shows the Wild Care website's events page. At the top, there is a navigation bar with links for 'About Us', 'Events' (with a dropdown arrow), 'Services', and 'People'. Below the navigation, a breadcrumb trail reads '/ Events by Month'. The main title 'Events' is centered above a subtitle 'This section contains events that we have organized'. A date selector shows 'April' with arrows to navigate between months. Two event cards are displayed: 'Birdwatching in Valtellina' on April 29, 2020, featuring a robin, and 'Alpine Animals Day' on April 25, 2020, featuring a chamois. The 'Alpine Animals Day' card is highlighted with a red border. At the bottom of the page, there is a dark green footer with links for 'Donate', 'Contact Form', 'FAQ', and social media icons for Facebook, Twitter, Instagram, and LinkedIn. Page navigation buttons 'Pages 1 2' are also present.

Figure 6: Selects an event.

The screenshot shows the Wild Care website's event page for "Alpine Animals Day". At the top, there is a navigation bar with links for "About Us", "Events", "Services", and "People". Below the navigation, a breadcrumb trail indicates the current location: "/ Events by Month / Alpine Animals Day". The main title "Alpine Animals Day" is centered above a photograph of a chamois in a mountainous, green landscape. To the right of the photo, event details are listed: Date (25 April 2020), Time (From 9:00 AM to 4:00 PM), and Location (Stelvio Park). A section titled "Description" contains text about the event's purpose. Below this, a "Organizer" section features a portrait of Federico Lucchetti with his quote: "Love mother earth as much as you love your mother". Under the "Services" heading, three images are shown: "Feed Animals" (people feeding deer), "Discover Nature" (people walking in a park), and "Rescue Animals" (a person holding a small hedgehog being fed from a syringe). The bottom of the page has a dark green footer with links for "Donate", "Contact Form", and "FAQ", along with social media icons for Facebook, Twitter, Instagram, and LinkedIn.

Figure 7: Goes to the page of the responsible of the event.

 Wild Care

About Us Events ▾ Services People

/ People / Federico Lucchetti

Federico Lucchetti



Birthday 16 January 1984 **Phone** +39 3404328112

Motto "Love mother earth as much as you love your mother"

Email fluc@gmail.com

Events

He takes part to the following events and he is the organizer f some of them.



Services



Donate Contact Form FAQ

[!\[\]\(3994d72c134b0a6bc73bfb31f5253b68_img.jpg\)](#) [!\[\]\(31711227610ec961ef5219f5f906b87c_img.jpg\)](#) [!\[\]\(33c5383d9c605b393a27c8f2e18d64db_img.jpg\)](#) [!\[\]\(38db1ed738fbed32cce76b327d9999c1_img.jpg\)](#)

Figure 8: Takes the email or the phone number of the responsible to contact it.

3.2 Case 2

Alessandra loves to watch documentaries about mountain environment and she is seriously scared by the fact that humans behaviour may affect and damage this fragile ecosystem. Because of these thought, she decides that it's time to give her contribute to save our wonderful world and she starts to search for associations that take care of wild animals and their environment. By surfing the net she ends up on our association's website.

She likes all read information and she is really excited because she is arrived to the conclusion that this is the association she was looking for. Because of this, she navigates to the FAQ section where she learns that to become a volunteer she needs to send a message to the association through the contact form.

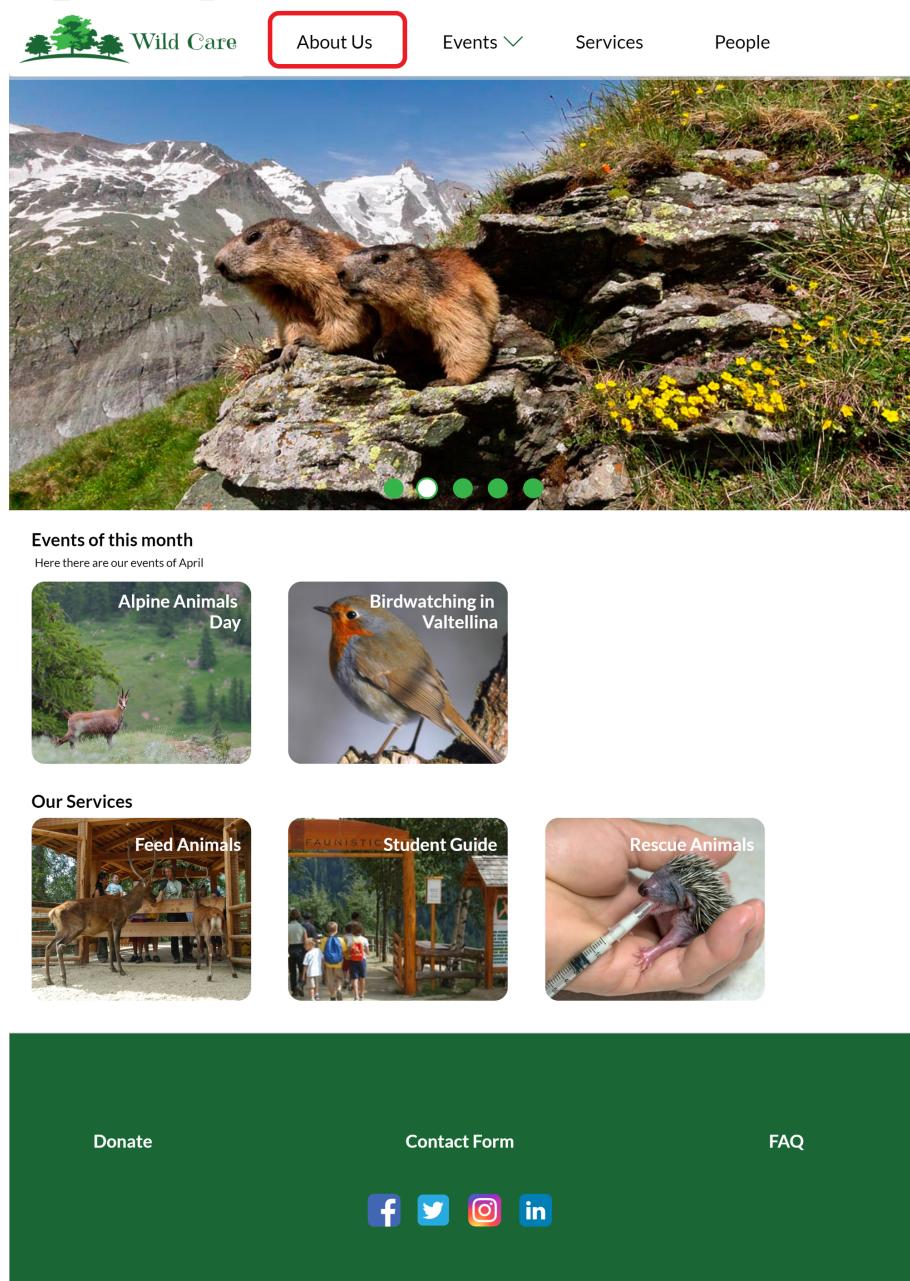


Figure 9: Selects about us from the home page.

 Wild Care

About Us Events Services **People**

/ About Us

About Us

Here you can find some general info about our association

Menu

- Who we are
- Our Mission
- History



Who we are

We are an Italian Association born in October 2017 that has the aim to rescue wild alpine animals and sensitize people of all ages to save and appreciate this special fauna. Wild Care aims to free them from their suffering and, after thorough veterinary checks and assessment, rehabilitate and eventually release those that are physically and mentally equipped to fend for themselves in the wild. Those that are not viable for release will be given a permanent home in sanctuaries where they will be well cared for, well fed and have the freedom to express natural alpine animals behaviour.

Our Mission

Our vision is a world where humans and animals coexist in sustainable ecosystems. Our mission is to build awareness and implement effective systems such that habitats and animals are protected. At Wild Care we not only save animals from suffering, we also rehabilitate and release them back into the wild and work to protect their precious natural habitats.

History

We have successfully spent the last three years by trying to achieve the following goals in the Italian alpine environment:

- Develop awareness to create mutual collaboration and collective action to protect natural habitats and the wildlife therein.
- Stimulate communities, government institutions and private stakeholders to take an active role in the management and protection of alpine woods.
- Implement effective and/or innovative methods and approaches to reduce the trade in wild animals.
- Ensure that animals remain safe in their habitat and that where/when appropriate, vulnerable animals are rescued

Donate **Contact Form** **FAQ**



Figure 10: Goes in the people section.

The screenshot shows the 'People' section of the Wild Care website. At the top, there is a navigation bar with links for 'About Us', 'Events', 'Services', and 'People'. Below the navigation, a breadcrumb trail shows the current page as '/People'. The main title 'People' is centered above a subtitle 'Here you can find all our volunteers'. A search bar with the placeholder 'Search by name' is positioned above the profiles. There are four profiles displayed in boxes:

- Federico Lucchetti**
"Love mother earth as much as you love your mother"
- Alice Gatti**
"Animals are better than humans"
- Sofia Placidi**
"Like gravity, karma is so basic we often don't even notice it"
- Riccardo Sassi**
"All you need is kong fu panda"

At the bottom of the page, there is a dark green footer bar with links for 'Donate', 'Contact Form', and 'FAQ'. Social media icons for Facebook, Twitter, Instagram, and LinkedIn are also present. The page number 'Pages 1 2' is shown in the bottom right corner.

Figure 11: Selects a person.

The screenshot shows a website for "Wild Care". At the top, there is a navigation bar with the logo "Wild Care" featuring three stylized green trees. The menu items are "About Us", "Events ▾", "Services", and "People", with "People" highlighted by a red box. Below the menu, a breadcrumb trail shows "/ People / Federico Lucchetti". The main content area displays the profile of "Federico Lucchetti". On the left is a circular portrait of a smiling man with dark hair and a beard. To the right, his details are listed: Birthday (16 January 1984), Phone (+39 3404328112), Motto ("Love mother earth as much as you love your mother"), and Email (fluc@gmail.com). Below this section, there is a heading "Events" followed by a sub-section titled "Alpine Animals Day" with an image of a deer in a mountainous setting. There are also sections for "Services" with images related to feeding animals, being a student guide, and rescuing animals.

Events

He takes part to the following events and he is the organizer f some of them.

Alpine Animals Day

Services

Feed Animals

Student Guide

Rescue Animals

Donate

Contact Form

FAQ

Facebook **Twitter** **Instagram** **LinkedIn**

Figure 12: Goes back to the people page to see the profile of other volunteers.

The screenshot shows the Wild Care website's "People" page. At the top, there is a navigation bar with links for "About Us", "Events", "Services", and "People". Below the navigation, a breadcrumb trail shows the current location as "/People". The main title "People" is centered above a subtitle "Here you can find all our volunteers". A search bar with the placeholder "Search by name" is positioned below the subtitle. Four cards are displayed, each containing a profile picture and a name, followed by a quote:

- Federico Lucchetti**
"Love mother earth as much as you love your mother"
- Alice Gatti**
"Animals are better than humans"
- Sofia Placidi**
"Like gravity, karma is so basic we often don't even notice it"
- Riccardo Sassi**
"All you need is kong fu panda"

At the bottom of the page, there is a dark green footer bar with links for "Donate", "Contact Form", and "FAQ". The "FAQ" link is highlighted with a red border. Social media icons for Facebook, Twitter, Instagram, and LinkedIn are also present in the footer. Page navigation buttons "Pages 1 2" are located at the bottom right.

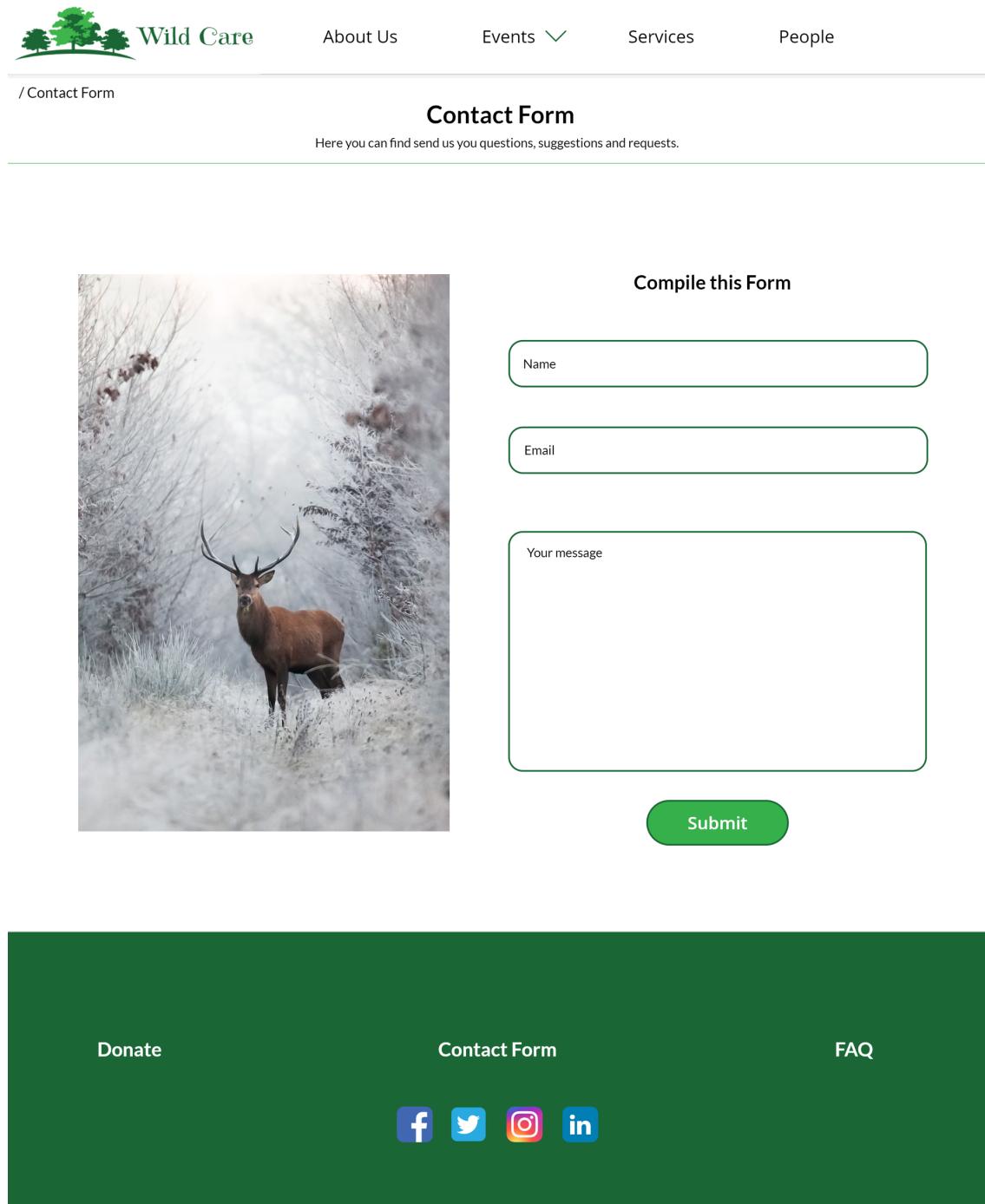
Figure 13: Navigates to the FAQ section.

The screenshot shows the Wild Care website's FAQ section. At the top, there is a navigation bar with links for About Us, Events (with a dropdown arrow), Services, and People. Below the navigation is a breadcrumb trail showing the current page as /Faq. The main title is "Faq", with a subtitle "Here you can find answer to all most frequent questions". A search bar is present. The FAQ content is organized into three expandable sections:

- How can I become a volunteer?** (Answer: Send an email through the Contact form)
- How can I donate?**
- Through which channel can I donate?**

At the bottom of the page is a dark green footer bar containing links for Donate, Contact Form (which is highlighted with a red rectangle), and FAQ. It also features social media icons for Facebook, Twitter, Instagram, and LinkedIn.

Figure 14: Selects contact form.



The image shows a screenshot of a website for "Wild Care". At the top, there is a navigation bar with links for "About Us", "Events", "Services", and "People". Below the navigation bar, a sub-navigation bar includes a link to "/Contact Form". The main content area is titled "Contact Form" and contains the text: "Here you can find send us your questions, suggestions and requests." To the left of the form, there is a large, atmospheric photograph of a red deer stag standing in a snowy, wooded landscape. To the right of the photograph, the form is titled "Compile this Form". It consists of three input fields: "Name", "Email", and "Your message", each enclosed in a green rounded rectangle. A green "Submit" button is located at the bottom right of the form area.

Figure 15: Sends a message to the association.

3.3 Case 3

Stefano enjoys participating to some of the events organized by Wild Care sometimes. In particular, last week he took part to an event that offered a service about feeding animals and he really liked both the content of the service and the interactiveness with the involved volunteers.

He decides to experience that again with his girlfriend, so he connects to the website and starts to looking for that service with the volunteers that was involved last time too. When he finds it, he navigates to the next event that will offer it and reads when it's going to take place.

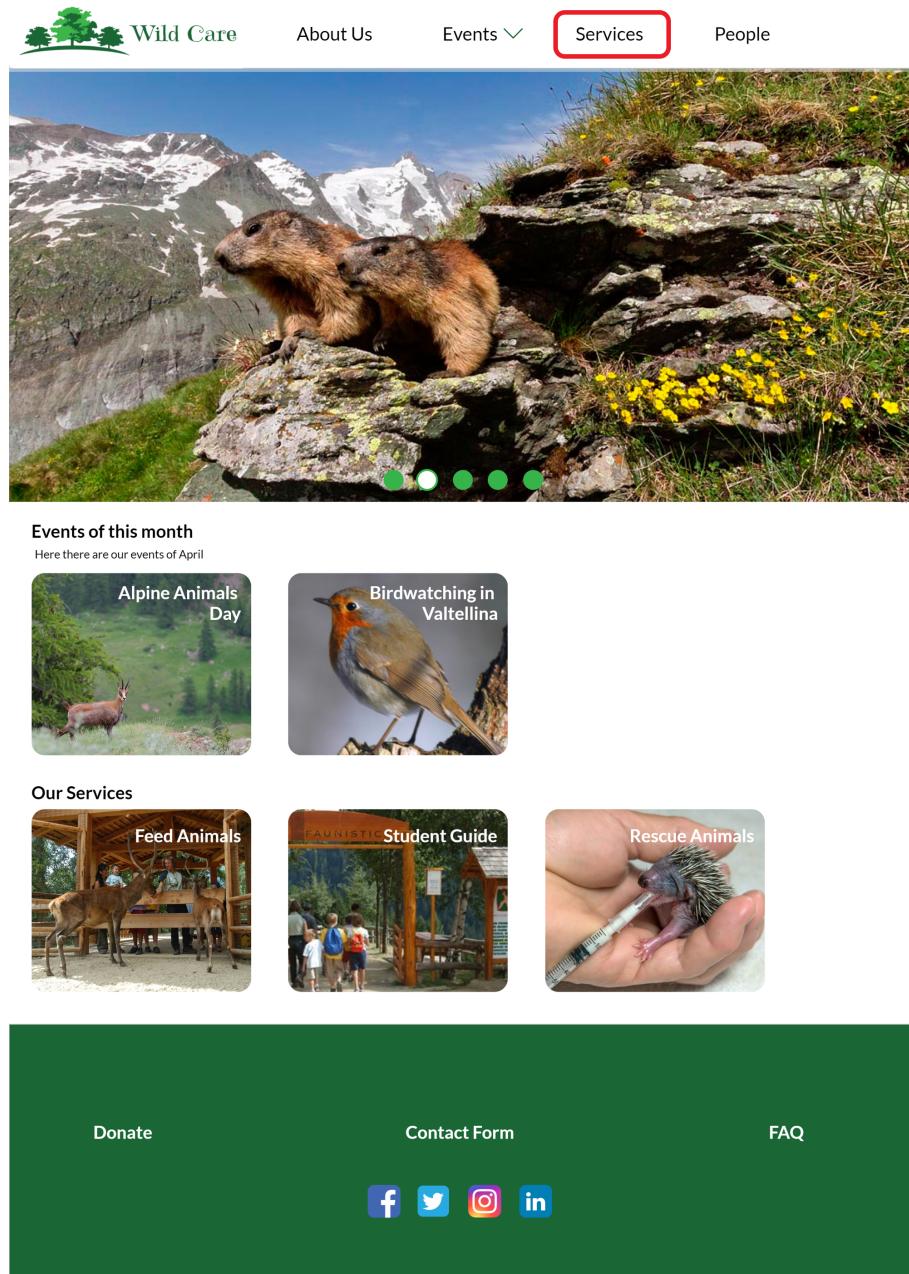


Figure 16: Selects services from the home page.

 Wild Care

About Us Events  Services People

/ Service

Services

This section contains all our services



Feed Animals



Rescue Animals

Pages 1 2

[Donate](#)

[Contact Form](#)

[FAQ](#)



Figure 17: Selects the service.

The screenshot shows a website for "Wild Care". At the top, there is a navigation bar with links for "About Us", "Events", "Services", and "People". Below the navigation bar, a breadcrumb trail reads "/ Service / Feed Animals". The main content area features a large image of two deer being fed by a person in a wooden enclosure. The text "Feed Animals" is displayed above the image. Below the image, there is a caption titled "Presentation" and a paragraph of text describing the "Red Deer House" service.

Presentation

The “Red Deer House” consists of a modern information office and a characteristic Visitors’ Centre, where even our youngest visitors may discover the characteristics of the animal species present in the protected area, their behaviors and how they have adapted to the rigid winters. During the visit it is possible to feed animals with our volunteers.

Practical Info

Who is involved

The following volunteers are involved in this service

Federico Lucchetti

"Love mother earth as much as you love your mother"

Alice Gatti

"Animals are better than humans"

Related events

Alpine Animals Day

[Donate](#)

[Contact Form](#)

[FAQ](#)

Figure 18: Checks the volunteers.

Page 20

 Wild Care

About Us Events ▾ Services People

/ People / Federico Lucchetti

Federico Lucchetti



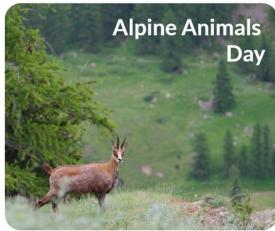
Birthday 16 January 1984 **Phone** +39 3404328112

Motto "Love mother earth as much as you love your mother"

Email fluc@gmail.com

Events

He takes part to the following events and he is the organizer f some of them.



Services



Donate **Contact Form** **FAQ**

[!\[\]\(5dbbf54520be7782d62d6a98a36223c2_img.jpg\)](#) [!\[\]\(d148a915f4ad85683a63cbfeb70169de_img.jpg\)](#) [!\[\]\(cadd2c66506db792b53857756225ac55_img.jpg\)](#) [!\[\]\(396c53b913029f588d352a87150a8c6d_img.jpg\)](#)

Figure 19: Goes back to the service page.

The screenshot shows a presentation slide titled "Feed Animals". The slide features a large image of two deer being fed by a person in a wooden enclosure. Below the image is a navigation bar with five green dots. The title "Feed Animals" is at the top right of the slide.

Presentation

The "Red Deer House" consists of a modern information office and a characteristic Visitors' Centre, where even our youngest visitors may discover the characteristics of the animal species present in the protected area, their behaviors and how they have adapted to the rigid winters. During the visit it is possible to feed animals with our volunteers.

Practical Info

Who is involved

The following volunteers are involved in this service

Federico Lucchetti

"Love mother earth as much as you love your mother"

Alice Gatti

"Animals are better than humans"

Related events

Alpine Animals Day

[Donate](#)

[Contact Form](#)

[FAQ](#)

Figure 20: Navigates to the related event page.

The screenshot shows the Wild Care website's event page for "Alpine Animals Day". At the top, there is a navigation bar with links for "About Us", "Events", "Services", and "People". Below the navigation, a breadcrumb trail indicates the current location: "/ Events by Month / Alpine Animals Day". The main title "Alpine Animals Day" is centered above a photograph of a chamois in a mountainous, green landscape. To the right of the photo, a red-bordered box contains event details: "Date 25 April 2020", "Time From 9:00 AM to 4:00 PM", and "Location Stelvio Park". Below the photo, a section titled "Description" contains text about the event's purpose: "Youngest visitors may discover the characteristics of the animal species present in the protected area, their behaviour and how they have adapted to the rigid winters." A section titled "Organizer" features a portrait of Federico Lucchetti with his quote: "Love mother earth as much as you love your mother". The "Services" section includes three images: "Feed Animals" (people feeding deer), "Discover Nature" (people walking near a wooden structure), and "Rescue Animals" (a hand holding a small hedgehog being fed from a syringe). The bottom of the page has a dark green footer with links for "Donate", "Contact Form", "FAQ", and social media icons for Facebook, Twitter, Instagram, and LinkedIn.

Figure 21: checks when the event will take place.

4 Design in-the-small

4.1 Home Page

The association's homepage gives an overview of what the association is about and what it offers. To improve the navigation, it has a section where can be found the events of the current month and another section with the services offered. It also contains a carousel with some images related to the association's main topics.

It is important to highlight that to go back to the home page the user can click on the association logo which inside the topbar landmark.

4.1.1 Home Page in-the-small

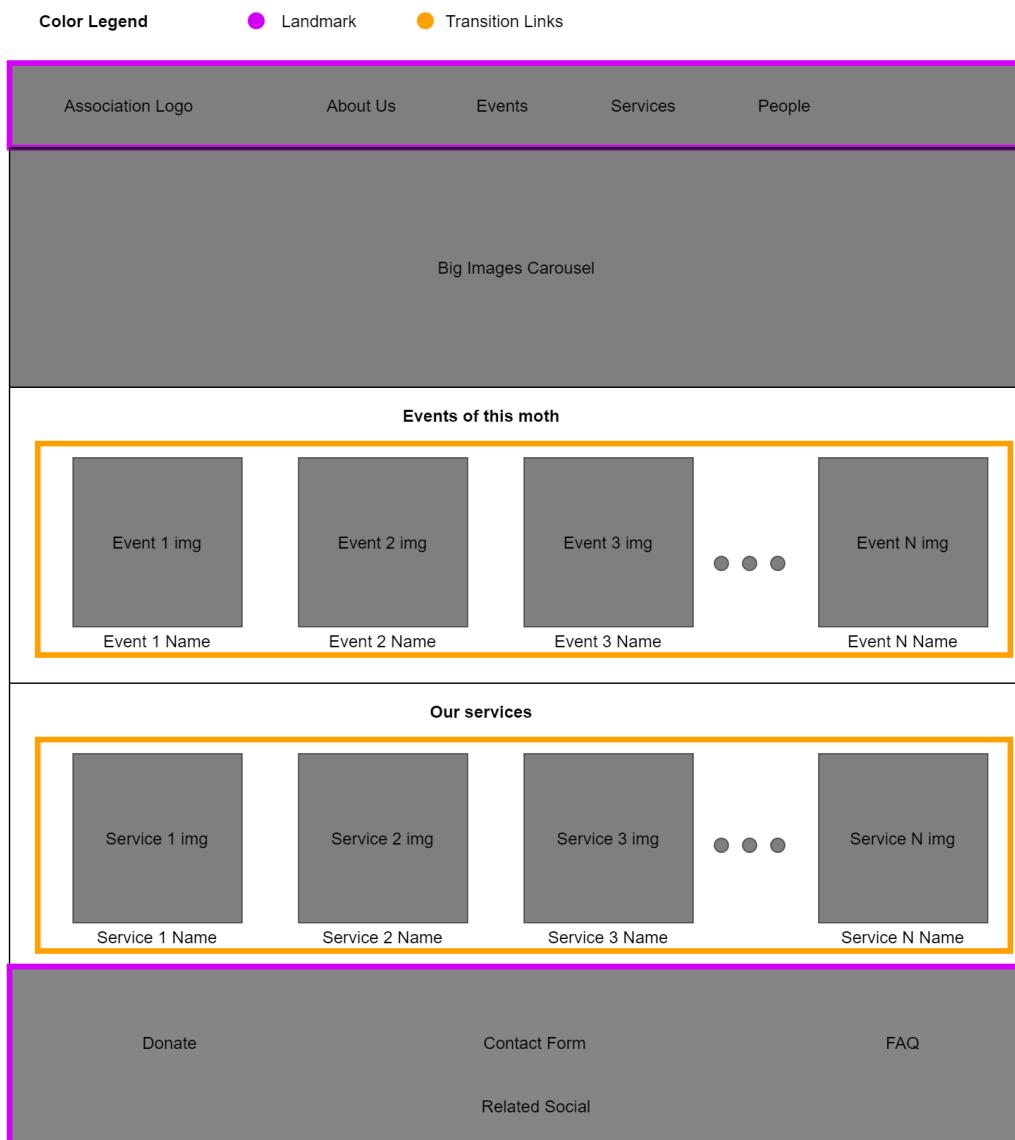


Figure 22: Homepage - Design in the small.

4.1.2 Home Page screenshot

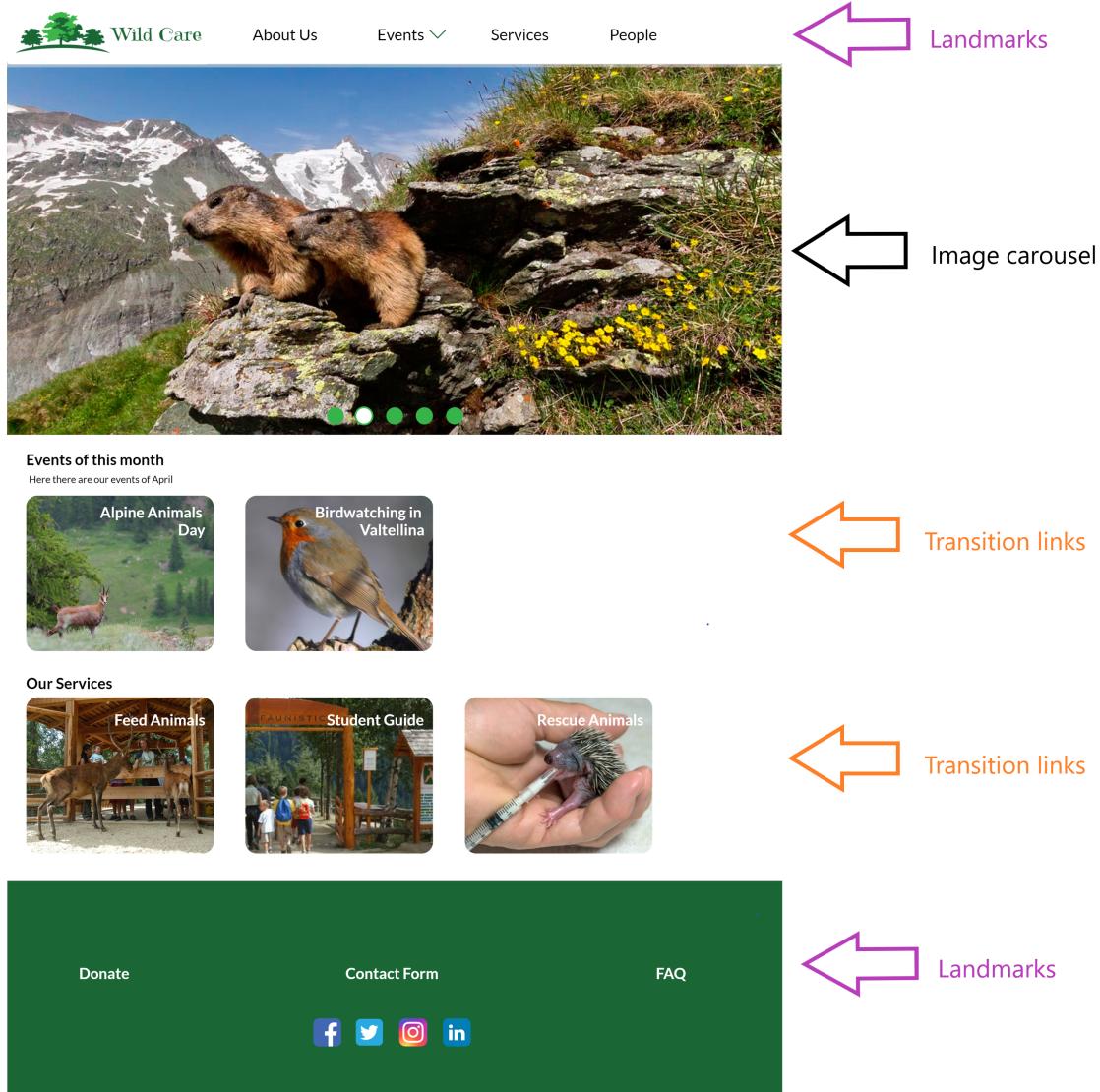


Figure 23: Homepage - Screenshot commented.

4.2 About us

This is the page dedicated to describe and give general information about our association. It is formed by 4 main sections:

- **Who we are:** gives general info about the association
- **Our Mission:** explains the purpose and final scope
- **History:** tells to user what the association has done from the foundation to today

A set of functional links has been added to let users easily navigate between these sections.

4.2.1 About Us in-the-small

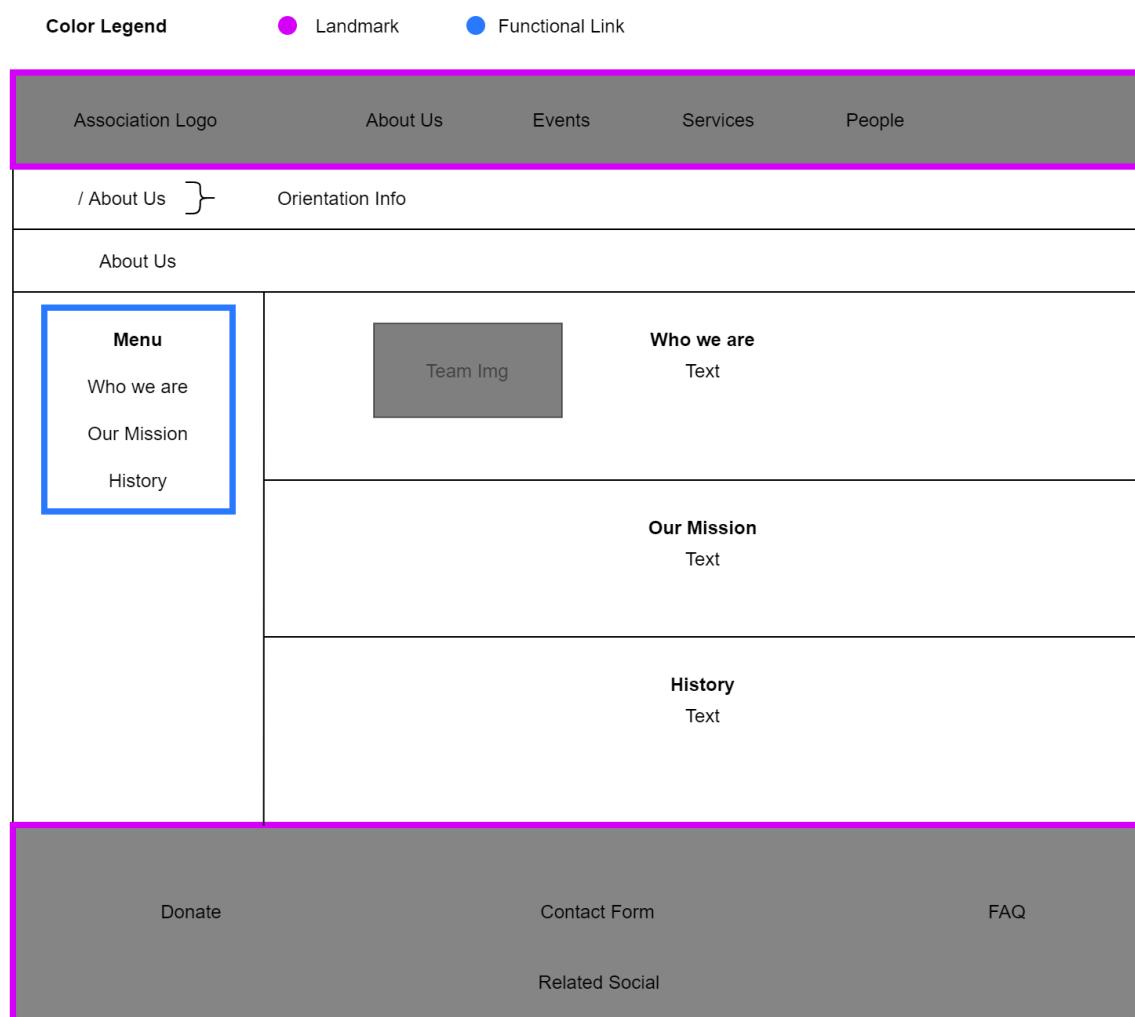


Figure 24: About Us page - Design in the small

4.2.2 About Us screenshot



Figure 25: About Us page - Screenshot commented.

4.3 Contact Form

The aim of this page is to let users ask questions or send messages to the association through a contact form, whose fields are all mandatory.

Once filled the form, Send button must be clicked:

- if one or more fields are empty or if the email is invalid (being valid means that it has the following structure: *example@example.com*) an error message will occur;
- if the form has been well completed a success message will pop up.

4.3.1 Contact Form in-the-small

Color Legend ● Landmark ● Functional Link

The wireframe shows a mobile-style layout for a contact form. At the top is a navigation bar with links for 'Association Logo', 'About Us', 'Events', 'Services', and 'People'. Below the navigation is a header section with 'Contact Form' and 'Orientation Info'. The main content area contains a large gray placeholder for an image labeled 'img'. To the right of this are three text input fields: 'Text Input Name', 'Text Input Email', and 'Text Input Message'. A blue-bordered 'Send' button is positioned below these. At the bottom is a footer bar with links for 'Donate', 'Contact Form', 'FAQ', and 'Related Social'.

Figure 26: Contact Form page - Design in the small

4.3.2 Contact Form screenshot

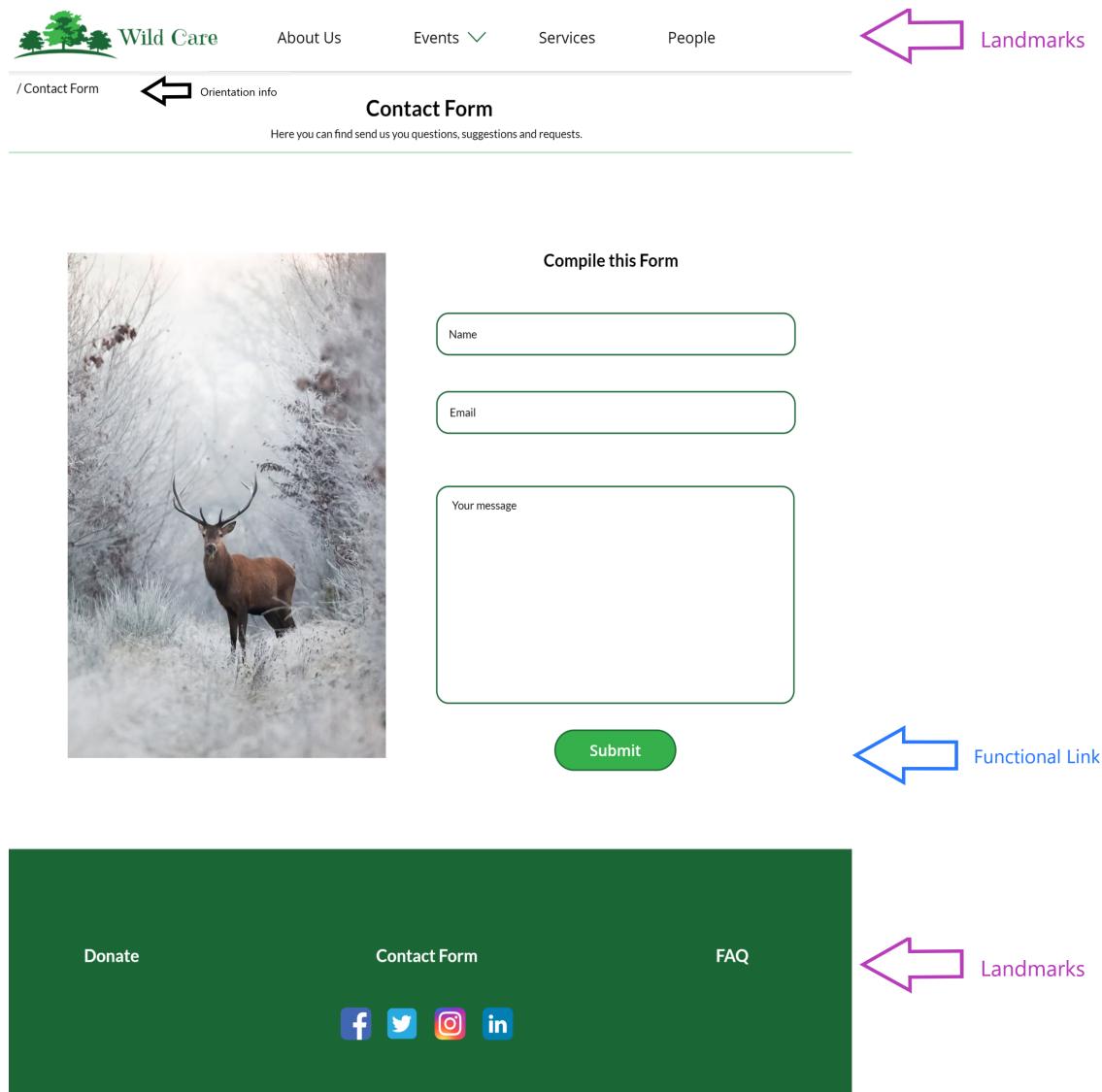


Figure 27: Contact Form page - Screenshot commented.

4.4 Events

The *Events* page contains a grid with all events that our association organizes. By clicking on each event image or name it is possible to navigate to the event's details page. Through the group links into the left side menu is possible to filter events depending on their type and date (the date filter is different from "Events by Month x" multiple group).

4.4.1 Events in-the-small

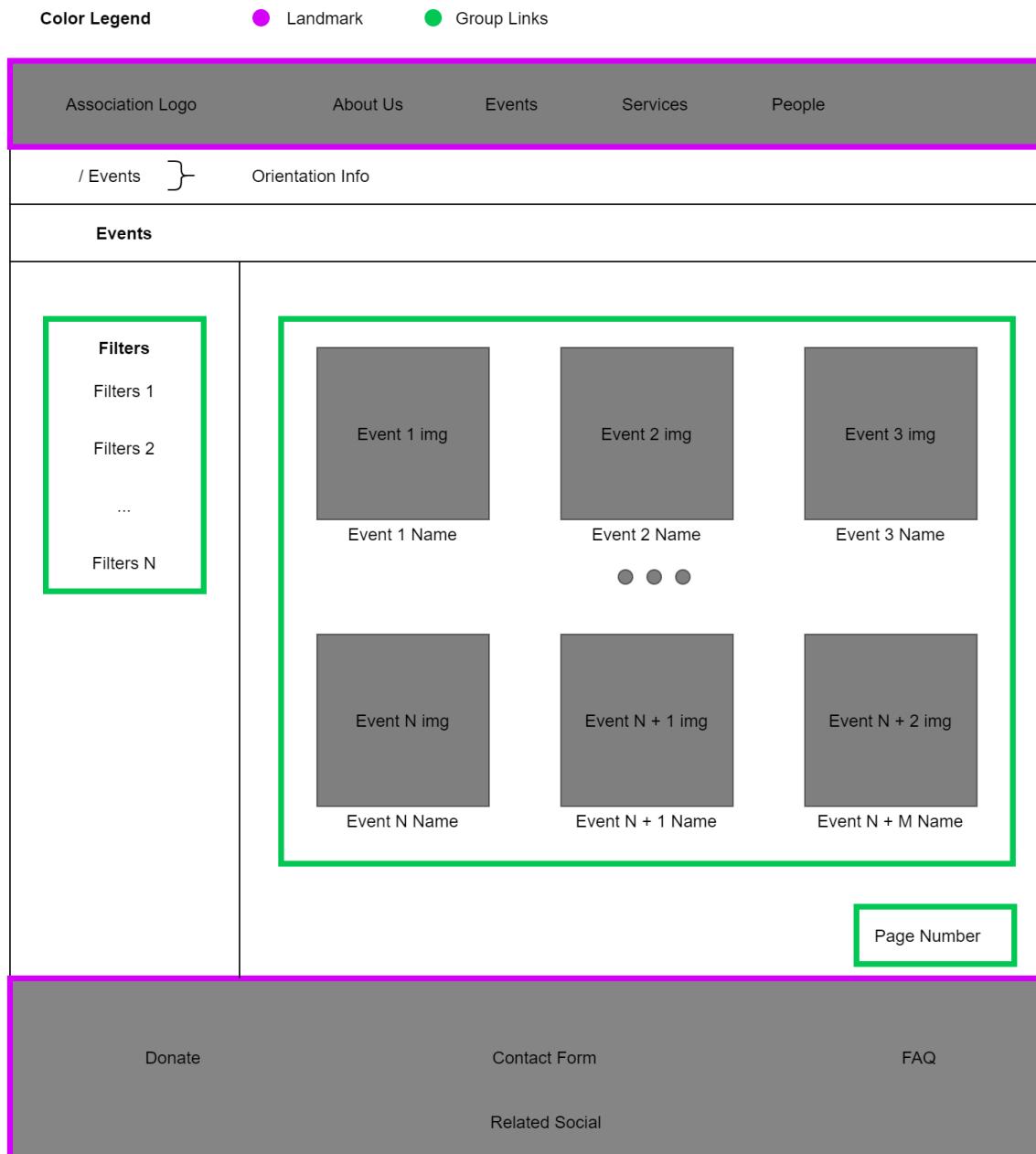


Figure 28: Events Page - Design in the small.

4.4.2 Events screenshot

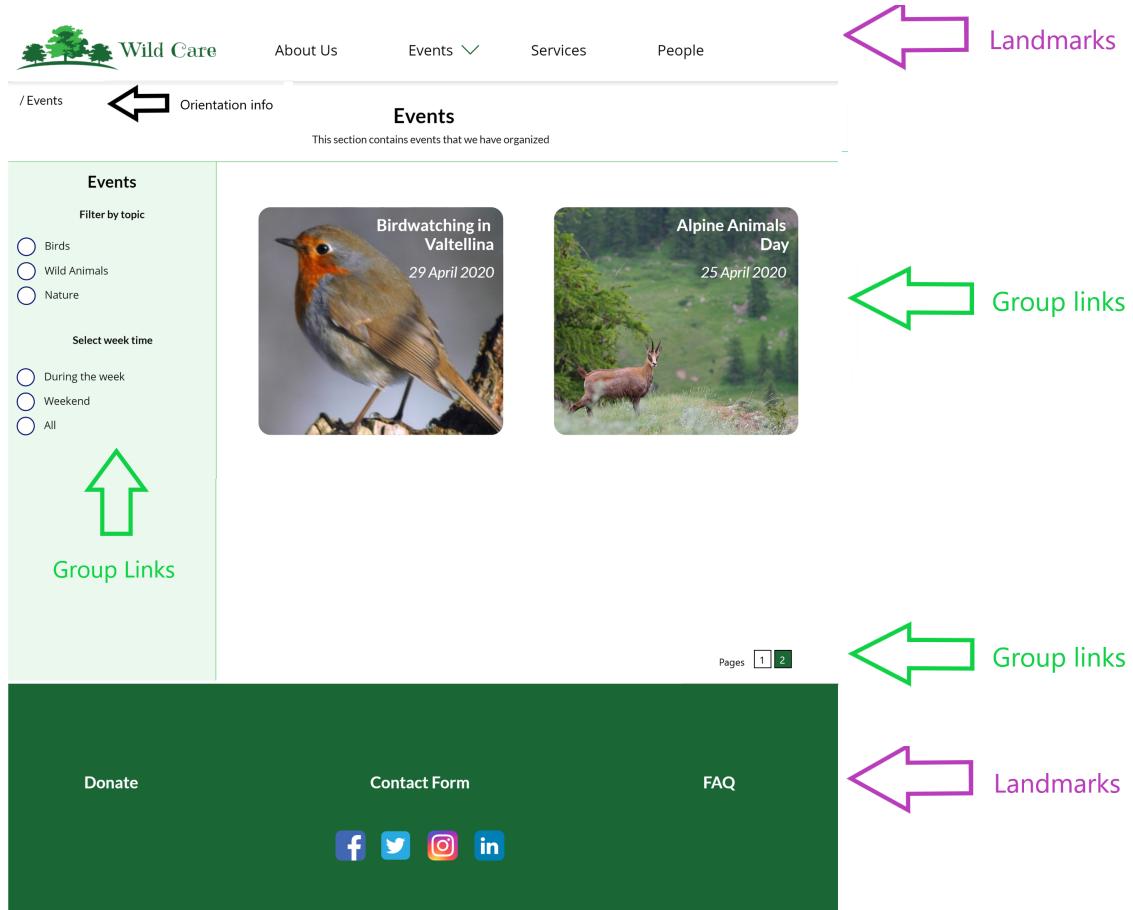


Figure 29: Events Page - Screenshot commented.

Events' details can be found in Event page, which contains:

- all event's information stored into the database such as the promotion image, practical info (like event date and location), a brief description, etc. etc.
- the transition links to all services that the association provide during the selected event
- the transition link to the volunteers' details that are the point of reference and organizers of the selected event

4.4.3 Event in-the-small

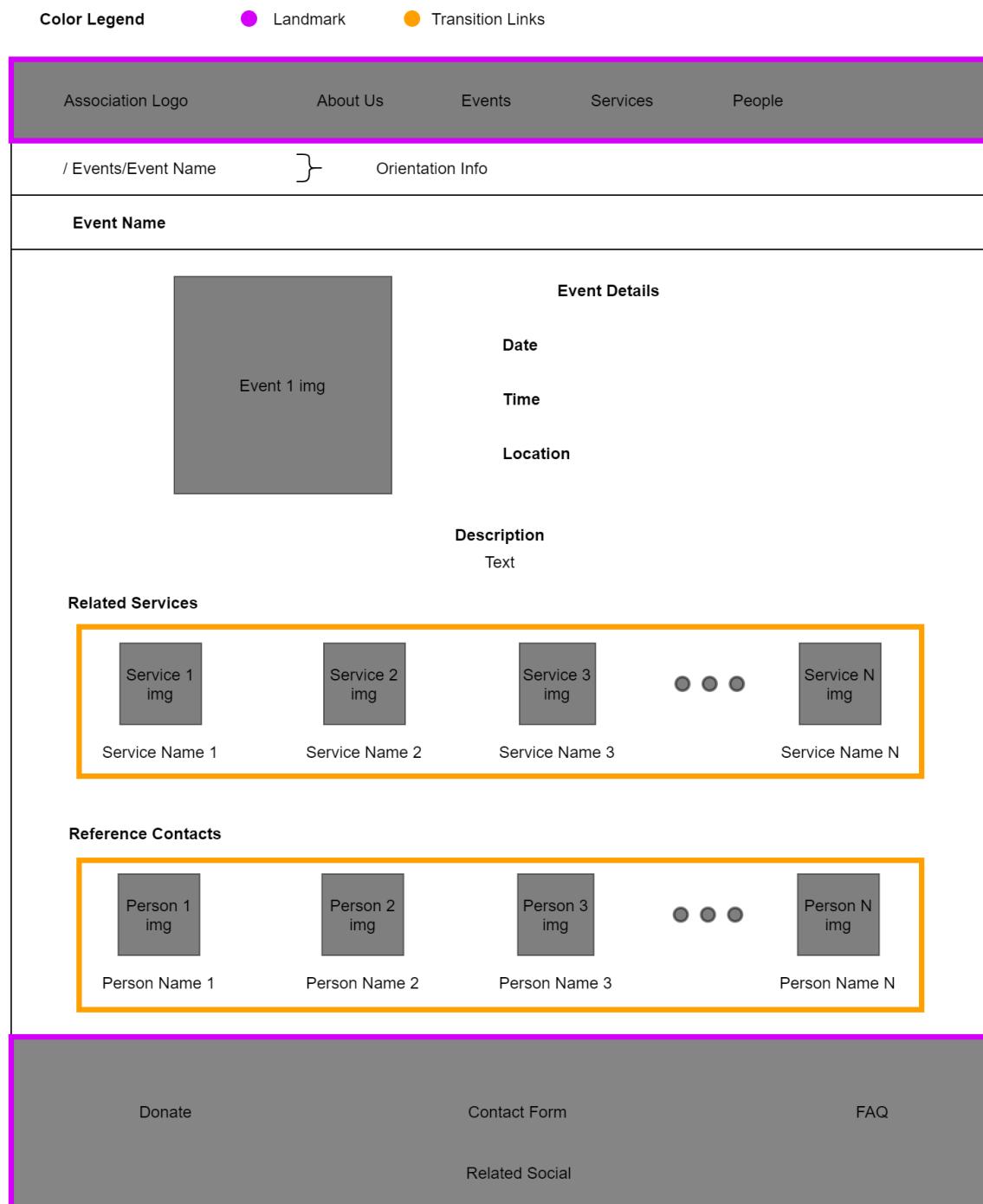


Figure 30: Event Page - Design in the small.

4.4.4 Event screenshot

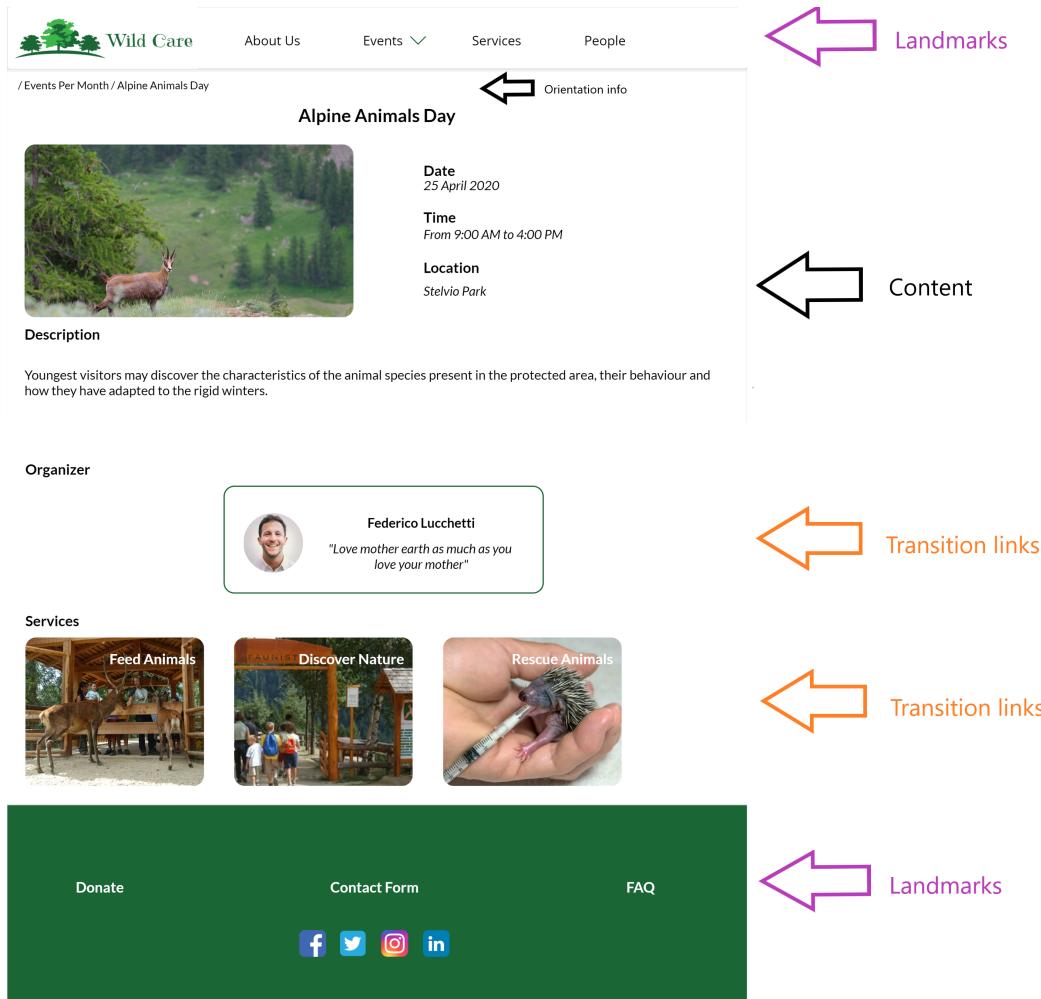


Figure 31: Event Page - Screenshot commented.

4.5 Services

The Services page aims to show all the services provided by our association. In the page is possible to click on each service image or name to access its dedicated page.

4.5.1 Services in-the-small

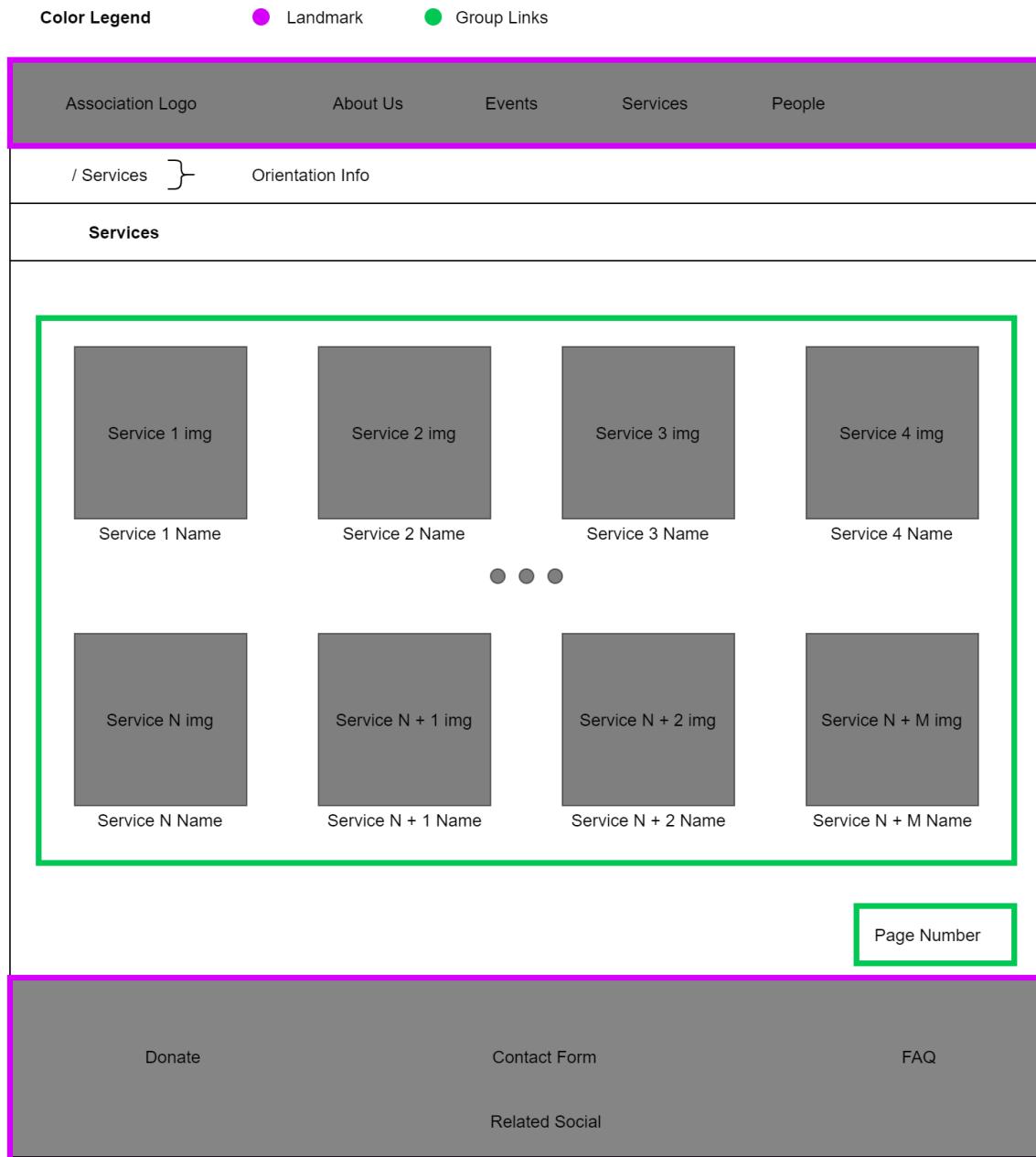


Figure 32: Services Page - Design in the small.

4.5.2 Services screenshot

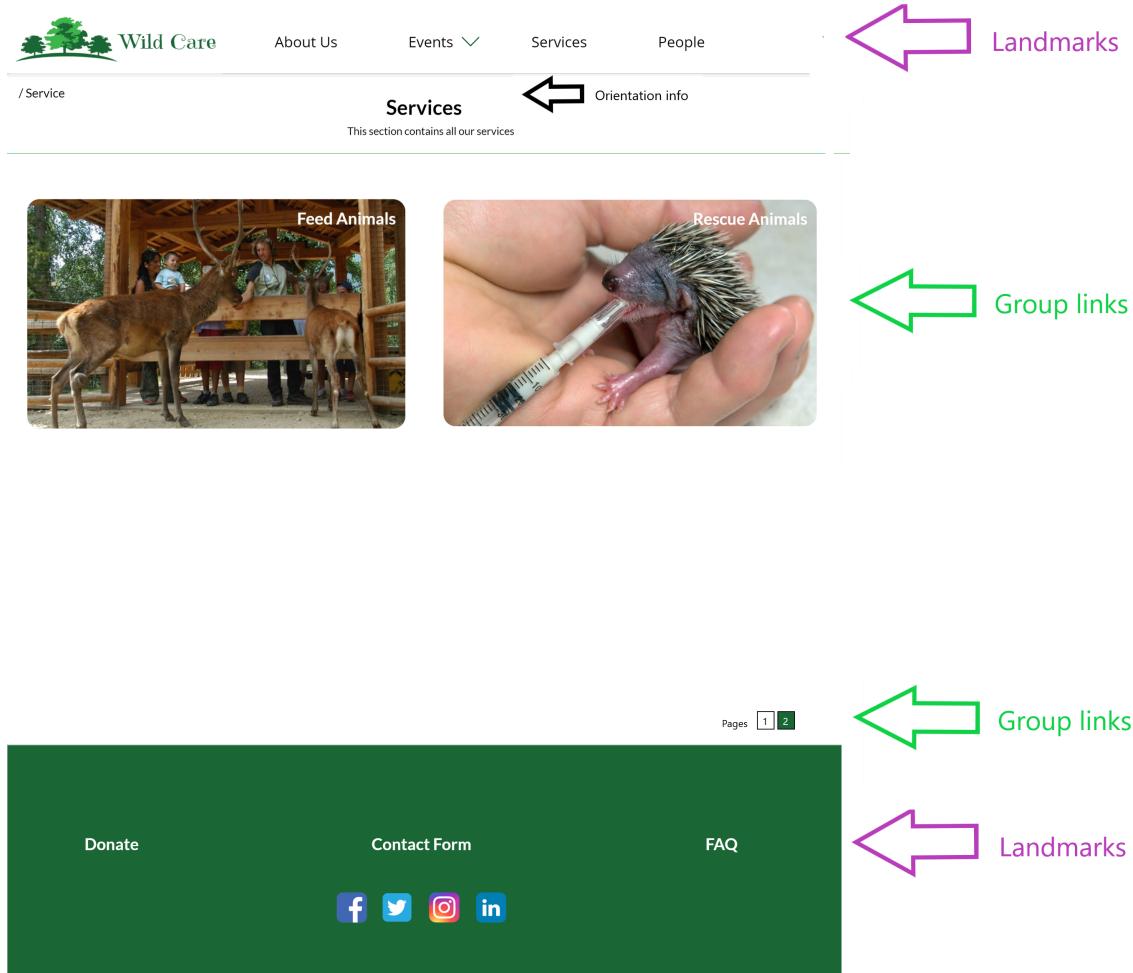


Figure 33: Services Page - Screenshot commented.

Services' details can be found in Service page, which contains:

- a carousel with all images related to the selected service, there must be at least one image and all of them are retrieved from the database;
- practical info and a brief description that explain the service purpose and all important information that users need;
- the transition links to the volunteer that are involved in the selected service;
- the transition links to the events in which the selected service is provided.

4.5.3 Service in-the-small

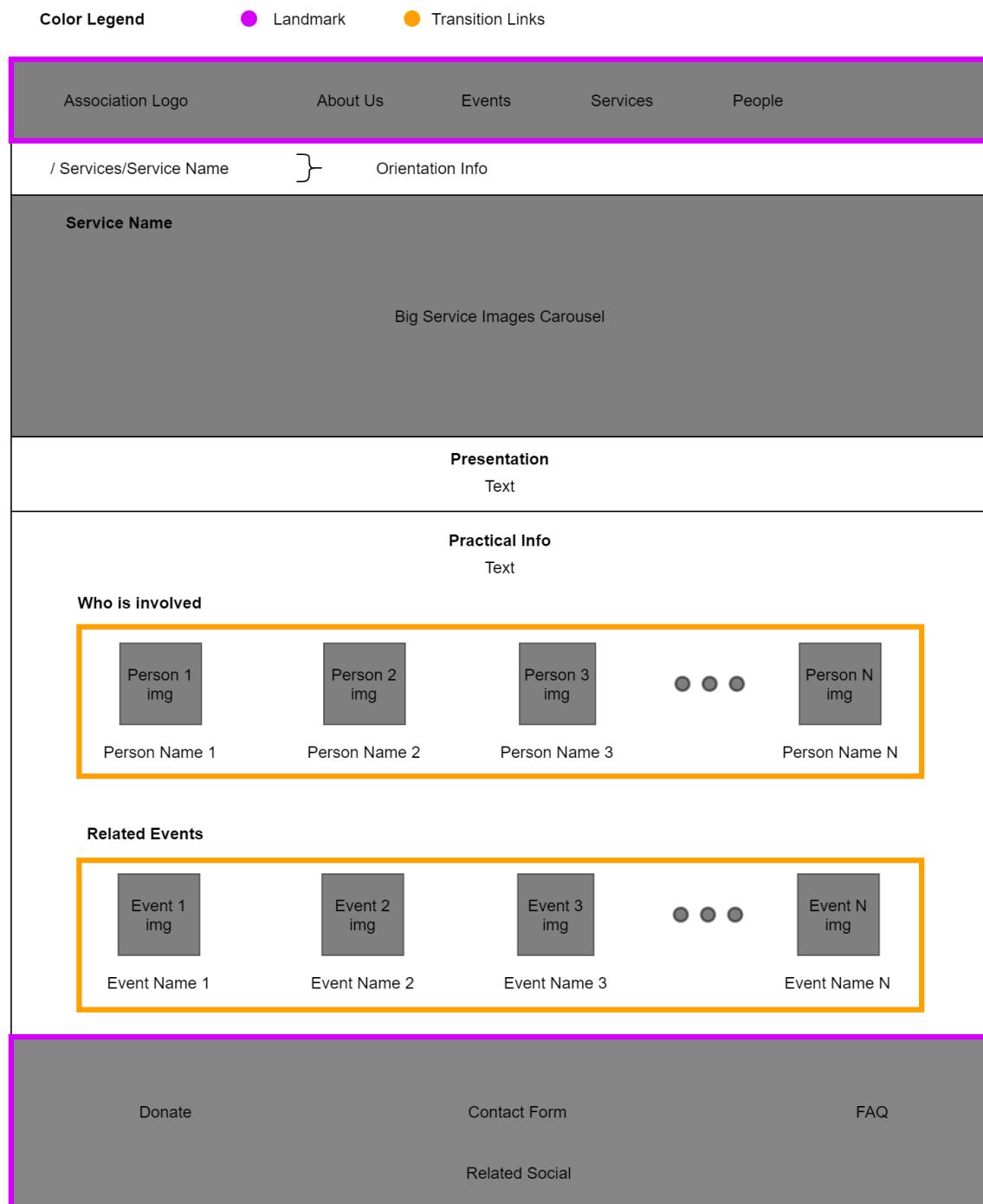


Figure 34: Service Page - Design in the small.

4.5.4 Service screenshot

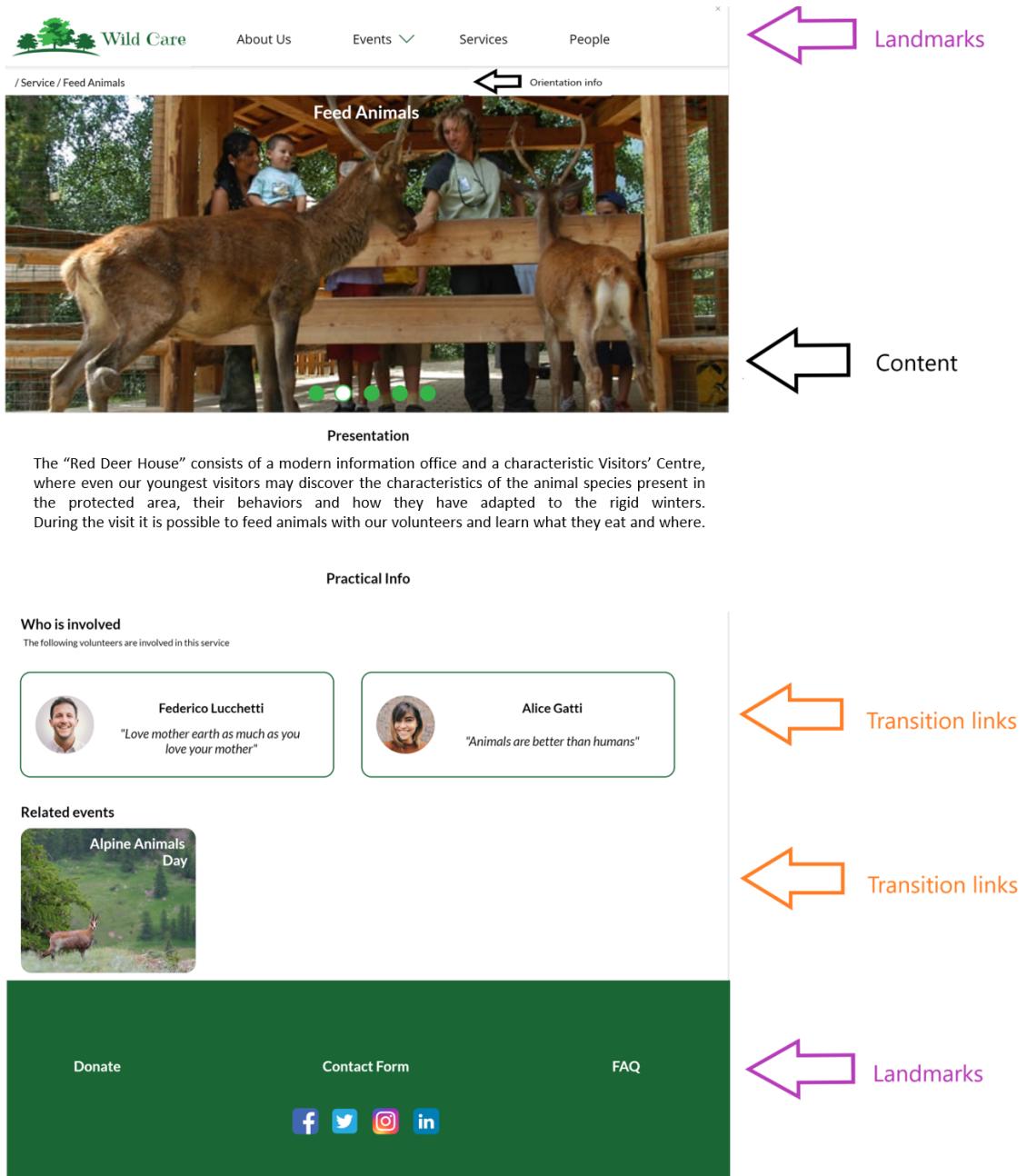


Figure 35: Service Page - Screenshot commented.

4.6 People

The *People* page contains a grid with all volunteers that are part of our organization. By clicking on each contact image or name, it is possible to navigate to the person's details page. It is possible to search a person by typing the name of the desired person through the group links above the grid.

4.6.1 People in-the-small

Color Legend ● Landmark ● Group Links

Association Logo About Us Events Services People

/ People } Orientation Info

People

Filter Person per Name

Person 1 img
Person 1 Name

Person 2 img
Person 2 Name

Person 3 img
Person 3 Name

Person 4 img
Person 4 Name

Person N img
Person N Name

Person N + 1 img
Person N + 1 Name

Person N + 2 img
Person N + 2 Name

Person N + M img
Person N + M Name

Page Number

Donate Contact Form FAQ

Related Social

Figure 36: People Page - Design in the small.

4.6.2 People screenshot

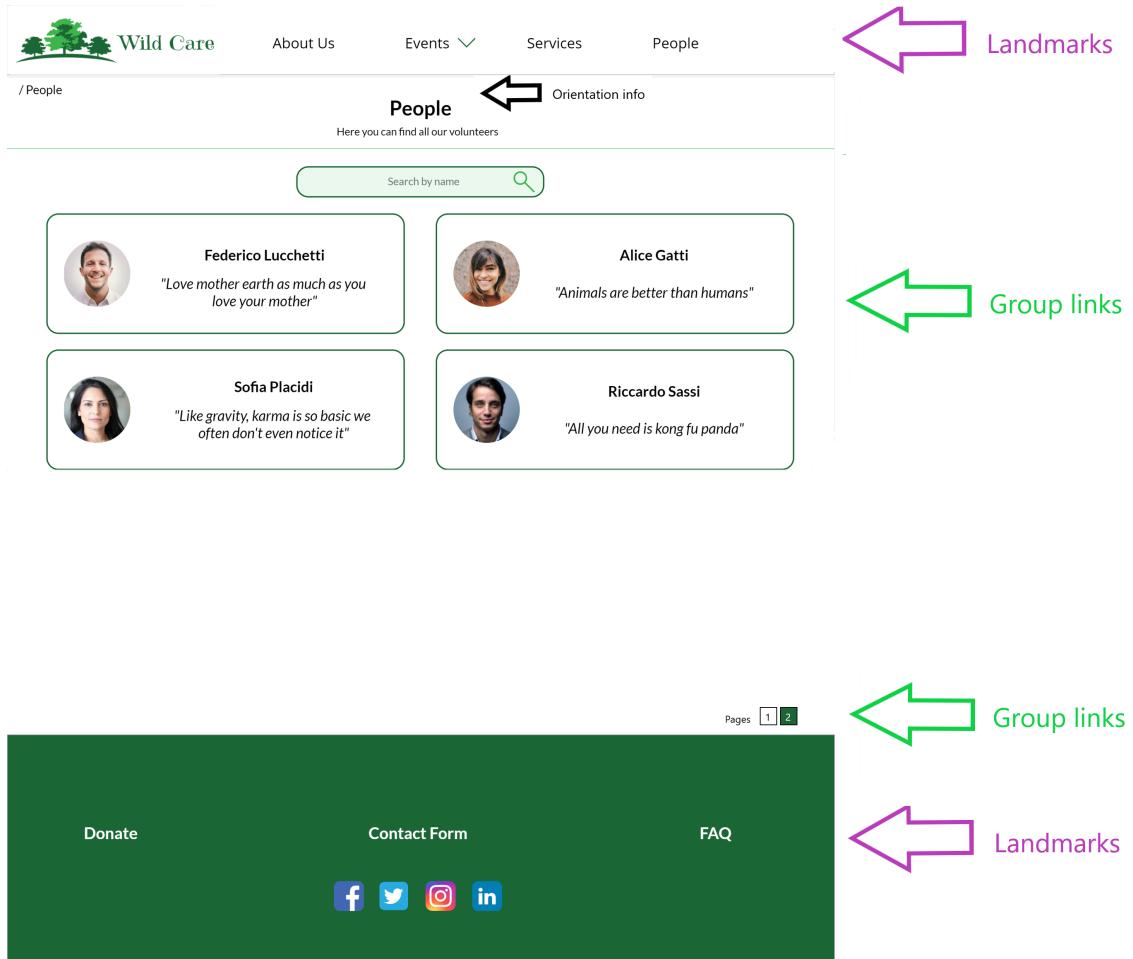


Figure 37: People Page - Screenshot commented.

People's details can be found in Person page, which contains:

- all person's information stored into the database such as the contact image, anographics as name and birthday, contacts info as email and number, a brief description, etc. etc.
- the transition links to all services the person is involved in
- the transition link to the events for which he/she is the point of reference. It may happen that a person doesn't have any transition link to events.

4.6.3 Person in-the-small

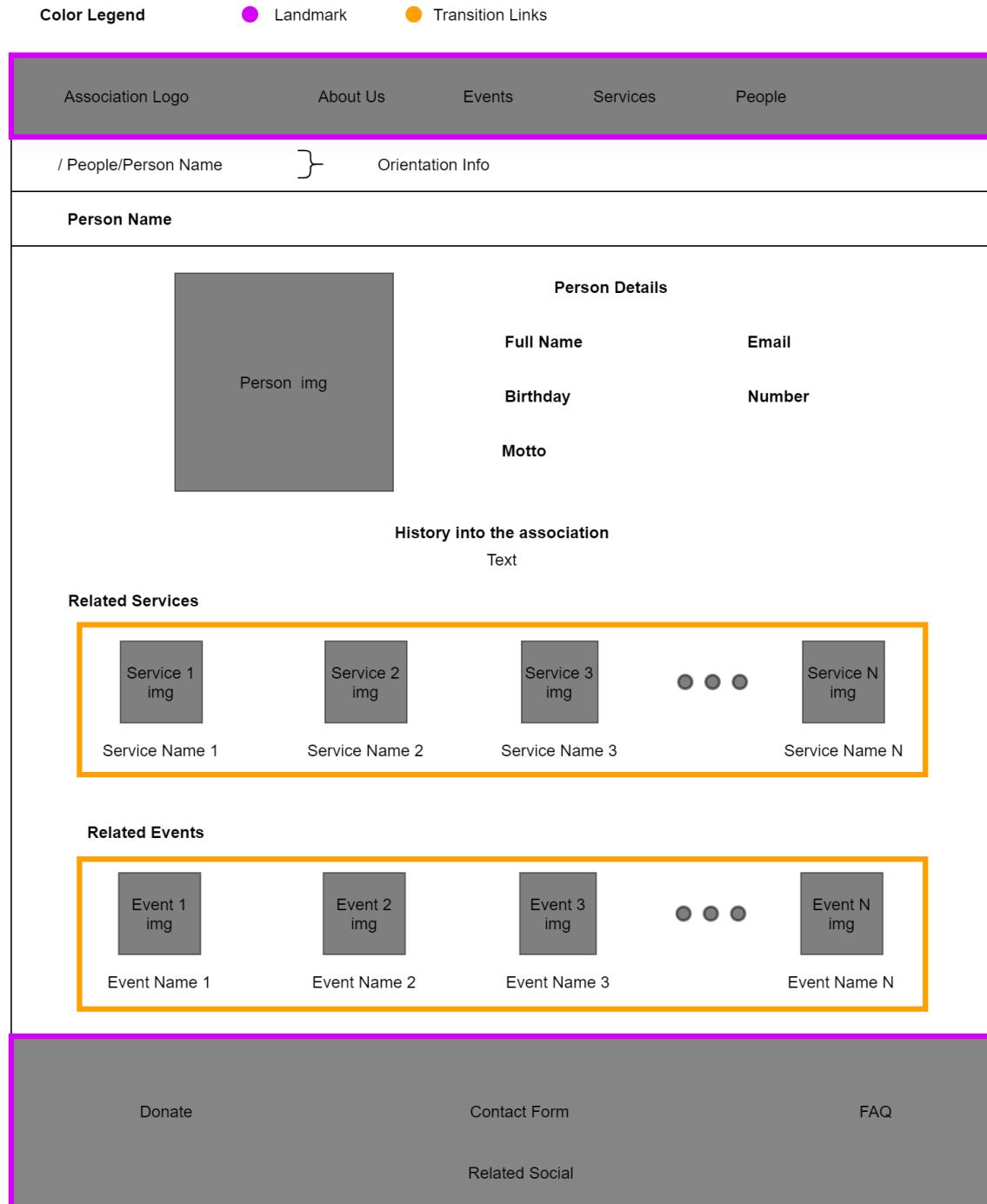


Figure 38: Person Page - Design in the small.

4.6.4 Person screenshot

The screenshot illustrates a person profile page from the 'Wild Care' website. At the top, there is a navigation bar with links for 'About Us', 'Events', 'Services', and 'People'. Below the navigation, a breadcrumb trail shows '/ People / Federico Lucchetti'. The main content area features a profile picture of Federico Lucchetti, his birthday (16 January 1984), his motto ("Love mother earth as much as you love your mother"), and contact information (Phone: +39 3404328112, Email: fluc@gmail.com). Below this, there is a section titled 'Events' showing an event called 'Alpine Animals Day' with a photo of a deer. In the 'Services' section, there are three sub-options: 'Feed Animals' (photo of deer being fed), 'Student Guide' (photo of students at a wooden kiosk), and 'Rescue Animals' (photo of a hedgehog being syringed). The footer contains links for 'Donate', 'Contact Form', and 'FAQ', along with social media icons for Facebook, Twitter, Instagram, and LinkedIn.

Annotations with arrows:

- A purple arrow points to the 'Landmarks' link in the top right corner.
- A black arrow points to the 'Orientation info' text below the profile picture.
- An orange arrow points to the 'Content' link in the middle right.
- An orange arrow points to the 'Transition links' link in the middle right.
- An orange arrow points to the 'Transition links' link in the middle right.
- A purple arrow points to the 'Landmarks' link in the bottom right corner.

Figure 39: Person Page - Screenshot commented.

5 Database Design

5.1 Entity Relationship Diagram

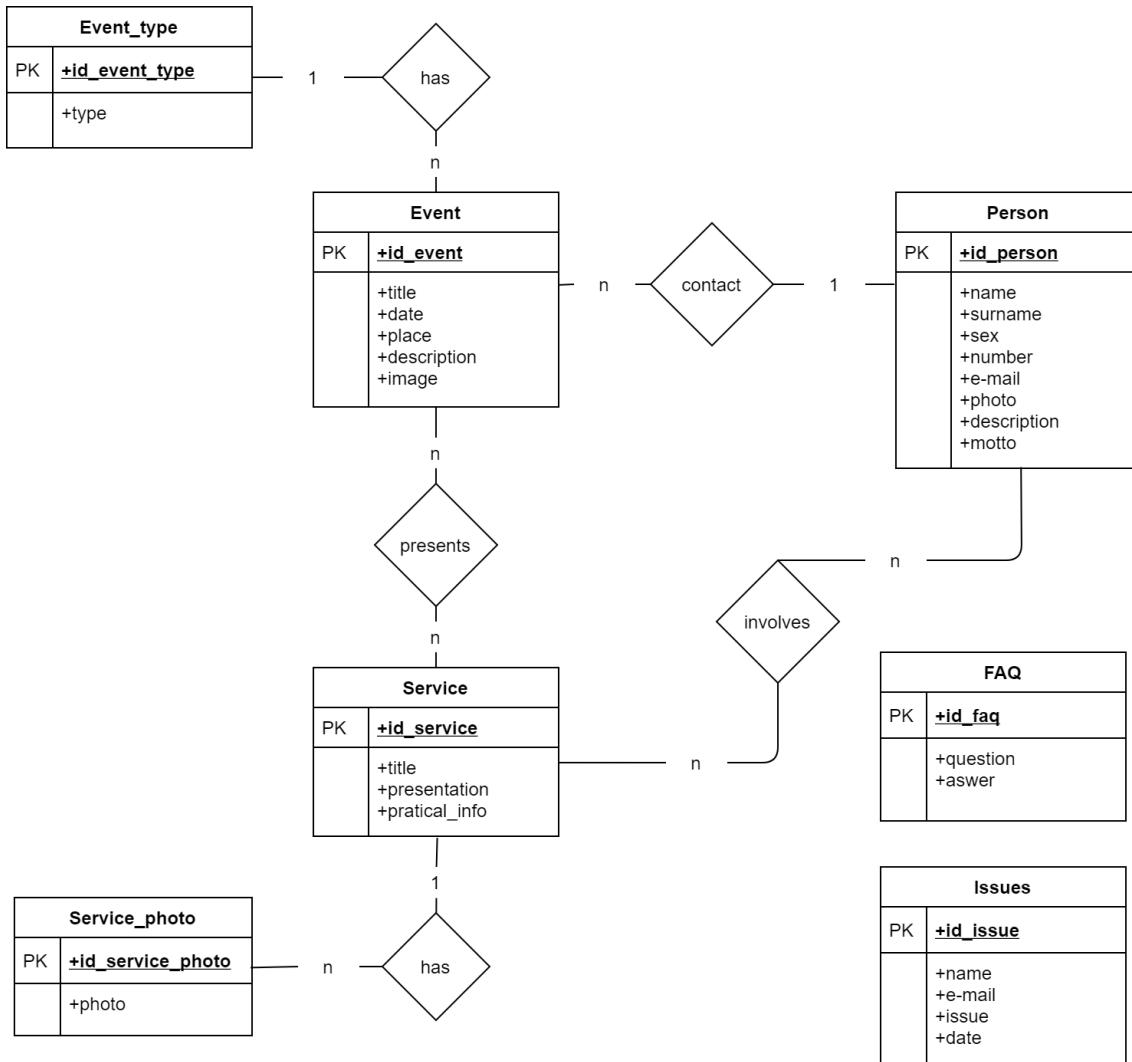


Figure 40: Relational database structure

5.2 Logical Design

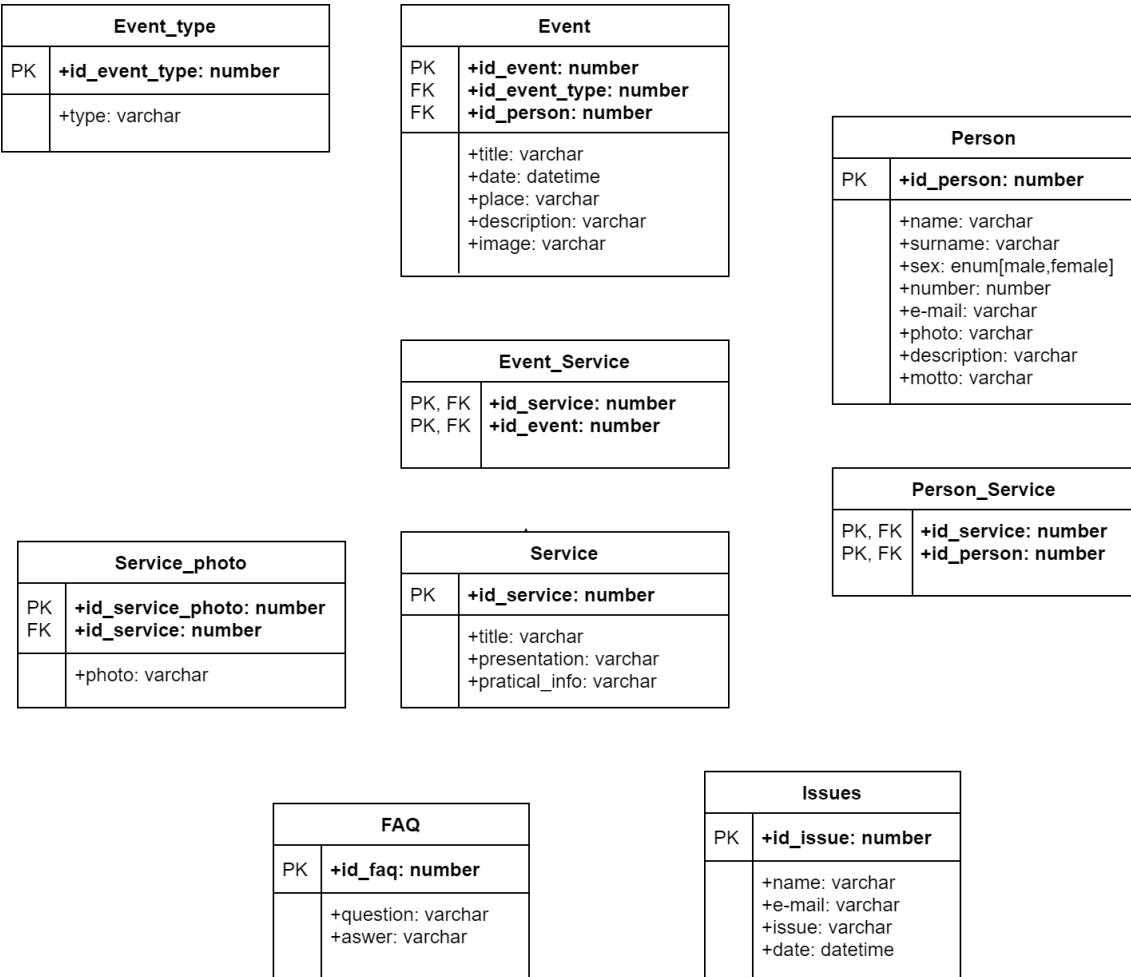


Figure 41: Logic Diagram