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GREEN SCENT
SMART CITIZEN EDUCATION FOR A GREEN FUTURE

Project start date: 01/01/2022 | Duration: 36 months

D6.1 - Development of Project Website

Due date of the Deliverable: 31/01/2022
Actual submission date: 31/01/2022

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Deliverable coordinator	Alessandro Caforio (*UTIU*) – alessandro.caforio@UNINETTUNOuniversity.net
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0. Document Info

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0.2. Document History

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Acronyms

Acronym	Description
AWS	Amazon Web Services
AZ	Availability Zones
CMS	Content Management System
CPU	Computer Unit
DB	Database
HTML	Hypertext Markup Language
KOM	Kick Off Meeting
MDG	Millennium Development Goals
RAM	Random Access Memory
SDG	Sustainable Development Goals
SEO	Search Engine Optimization
SQL	Structured query language

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Executive Summary

This document illustrates the main features of the project's website, realized based on the specifications given in WP6, as Deliverable D6.1. This deliverable, so the public website launch, is due on 31/01/2022; the project management website will be online on M3.

This document illustrates the design options affecting the conception of the Logo, the choice of the Color Palette characterizing the "Brand Identity" of GreenSCENT, and Home Page and the inner pages of the GreenSCENT website.

In the following section, we illustrate the technologies on which the GreenSCENT website relies. In addition, there is a detailed illustration of the sections included into GreenSCENT website in its launching phase and more specifically:

- The Home Page inclusive of the objectives of the project
- The "About us" with an abstract explaining how the project will work
- The GreenSCENT Pillars are the main areas on which the project refers to
- Methodology of work
- Demonstrators: the "practical" use of the project
- The list with logos and link to their website of the 15 partners involved in the project
- News, a section supplying a press review, press releases, news and events management;
- Contacts, allowing the website users (also anonymous users) to get in touch with the GREENSCENT project team.

The website of the GREENSCENT project can be freely navigated at the URL: https://www.green-scent.eu

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1. Introduction

GreenSCENT – Smart Citizen Education for a Green Future – is a research and innovation project funded by the European Union's Horizon 2020 programme, under Grant Agreement N° 101036480. GreenSCENT aims at developing a competence framework embracing all the Green Deal focus areas through an iterative, participated, experience and learning-by-doing based design approach. GreenSCENT activities embrace both experts and researchers inputs and advise, citizen participation and stakeholder engagement initiatives; different European regions, different educational levels (from primary schools to higher education), at different engagement levels (from observation to data collection and processing, to contribution to scientific and policy agenda). GreenSCENT legacy will consist of the Competence Framework (GreenComp), its Methodology, Use Cases, User Guides; Training kits co-designed for implementing the framework; SCENTbox, the set of digital, physical and hybrid demonstrators developed by the project; and ECCEL, a European "driving license" for Climate and Environmental competences and skills, that will be tested during the project.

This document complements the publication of GreenSCENT project website, a deliverable type: DEC foreseen in the first month of the project implementation timespan. GreenSCENT project website is a platform for ongoing public engagement, including areas for news releases, project reports and technical documentation.

The website is available at the URL: https://www.green-scent.eu.

Special attention was devoted to establishing the website digital identity, which is meant at respecting the project's mission.

The portal utilizes a scalable architecture allowing increasing its performances when new resources are brought in, on the single server (RAM, CPU, etc.) as well as by adding other servers in order to share the workload. This allows maintaining good performance levels even with an increase of the users' numbers.

UNINETTUNO utilizes the Amazon Web Services (AWS) to maintain its own hardware and software architecture, being Amazon WS one of the biggest Internet cloud service suppliers across the world.

The system includes a big Internet-based portal with information sections and learning environments, based on a database meant to structuring, storing and retrieving information and supported by applications for the delivery of on-demand educational content also in a streaming technology video format.

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2. Hardware and Software Infrastructure

UNINETTUNO uses Amazon Web Services (AWS) to manage its own Hardware and Software architecture, provided Amazon WS is one of the biggest Internet cloud service providers all over the world.

2.1. AWS Global Infrastructure

The AWS cloud operates in 84 availability zones across 26 geographic regions of the world.

2.1.1. Regions and availability zones of AWS

The cloud infrastructure of AWS is based on regions and availability zones or AZ (Availability Zone). A region is a geographic area, where several availability zones exist. Availability zones consist of or more data centres provided with redundant charge, network and connectivity, in its own separate structure each. These availability zones allow to carry out applications and databases in production environments with availability, tolerance to malfunctions, scalability, which are not to be attained in another way within the single data centre. The AWS cloud operates in 84 availability zones across 26 regions all over the world.

2.1.2. Global Infrastructure

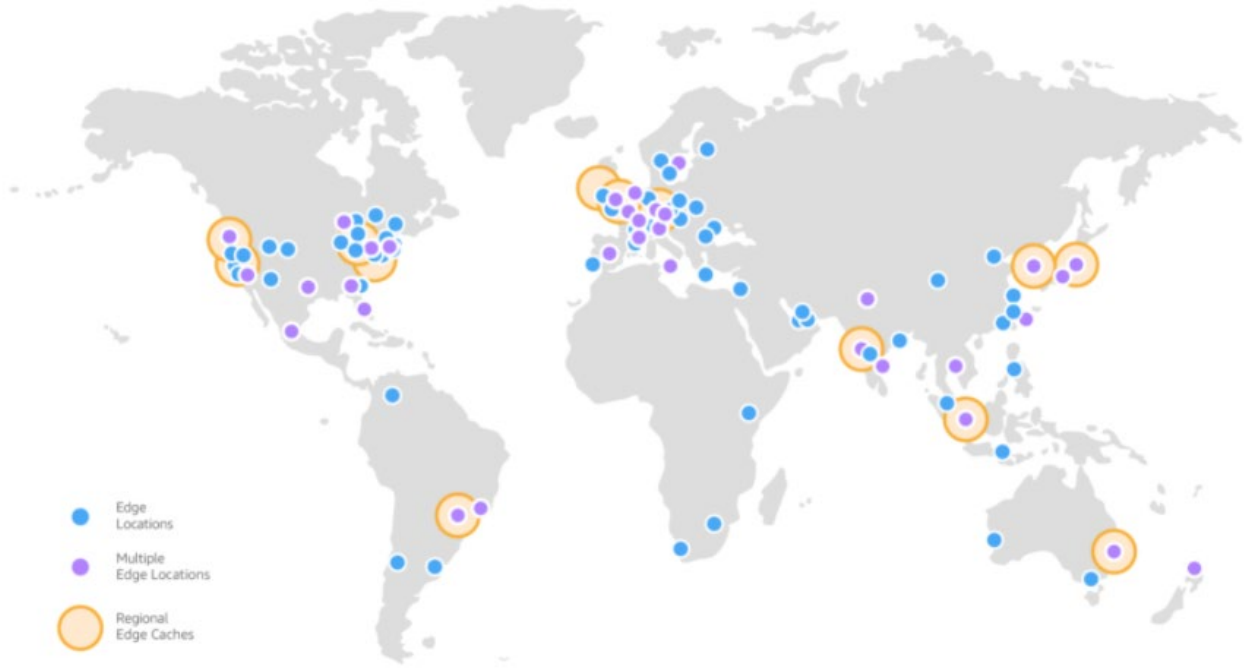

Figure 1 AWS global infrastructure

Regions and amount of availability zones
1. Eastern United States – North Virginia: 6
2. Eastern United States – Ohio: 3
3. Eastern United States – GovCloud: 3
4. Western United States – GovCloud: 3
5. Western United States – North California: 3
6. Western United States – Oregon: 4

7. Canada: 3
8. South America – Sao Paulo: 3
9. Europe – Ireland: 3
10. Europe – London: 3
11. Europe – Stockholm: 3
12. Europe – Frankfurt: 3
13. Europe – Paris: 3
14. Europe – Milan: 3
15. Africa – Cape Town: 3
16. Middle East – Bahrein: 3
17. Continental China – Pekin: 3
18. Continental China – Ningxia: 3
19. Asia Pacific – Singapore: 3
20. Asia Pacific – Sydney: 3
21. Asia Pacific – Mumbai: 3
22. Asia Pacific – Osaka: 3
23. Asia Pacific – Tokyo: 4
24. Asia Pacific –Seoul: 4
25. Asia Pacific – Hong Kong: 3
26. Asia Pacific – Jakarta: 3

Table 1 AWS regions

2.1.3. High availability thanks to the availability zones

In contrast to almost all the other technology infrastructure providers, AWS envisages that each region has several zones of availability and data center. AWS leads the technological cloud platform since 2006, so it knows the key role that application availability and performance play for clients, and provides the possibility of spreading its applications across different availability zones within the same region in order to enhance the tolerance to malfunctions and curb the latency. The availability zones are connected to each other with very fast optic fiber private networks, allowing the clients to design applications to run the failover on different zones, without causing interruptions.

2.1.4. More continuity with the replication between regions

Besides replicating the applications and data in different data centers within the single region by using the availability zones, it is also possible to obtain increased redundancy and tolerance to the malfunctions by replicating data over different regions. It is possible to use both high-speed private networks, and public Internet connections, so as to further improve the continuity and keep latency under control all over the world.

2.1.5. Compliance requirements and physical position of data

With AWS it is possible to select in which region to physically stock the data, simplifying the compliance to territorial requirements.

2.1.5.1. Europe / Middle Est / Africa

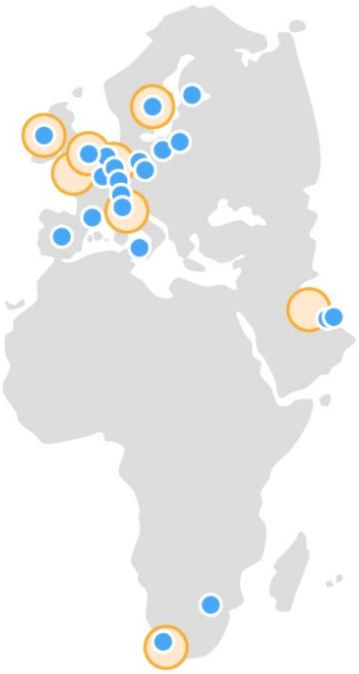

Figure 2 AWS Europe / Middle Est / Africa

Regions

Edge Locations

Europe Region (Ireland) Availability Zones: 3 Kicked off in 2007	Europe Region (Frankfurt) Availability Zones: 3 Kicked off in 2014
Europe Region (London) Availability Zones: 3 Kicked off in 2016	Europe Region (Paris) Availability Zones: 3 Kicked off in 2017
Europe Region (Stockholm) Availability Zones: 3 Kicked off in 2018	Europe Region (Milan) Availability Zones: 3 Kicked off in 2020

Table 2 AWS European Regions

Edge Locations of AWS: Amsterdam, Netherlands; Athens, Greece; Berlin, Germany; Brussels, Belgium; Bucharest, Romania; Budapest, Hungary; Cape Town, South Africa; Copenhagen, Denmark; Dubai, AUE; Dublin, Ireland; Dusseldorf, Germany; Frankfurt, Germany; Fujairah, AUE; Hamburg, Germany; Helsinki, Finland; Johannesburg, South Africa; Lisbon, Portugal; London, England; Madrid, Spain; Manama, Bahrein; Manchester, England; Marseille, France; Milan, Italy; Munchen, Germany; Nairobi, Kenya; Oslo, Norway; Palermo, Italy; Paris, France; Prague, Czech Republic; Rome, Italy; Sofia, Bulgaria; Stockholm, Sweden; Wien, Austria; Varsaw, Poland; Zagreb, Croatia; Zurich, Switzerland; Tel Aviv, Israel.

2.2. Content Management System

The **Content** module is carried out by means of the Content Management System (CMS) by WordPress (https://wordpress.org/), a free and open source content management system (CMS) based on PHP and MySQL

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WordPress is the most widely used CMS software in the world and as of June 2021, it powers more than 40% of the top 10 million websites and has an estimated 64% market share of all websites built using a CMS.

WordPress started as a simple blogging system in 2003, but it has evolved into a full CMS with thousands of plugins, widgets, and themes. It is licensed under the General Public License (GPLv2 or later).

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3. Visual Identity

The establishment of the digital identity relied on a process of aggregation of the project main concepts that were represented by some key words.

Keywords – to be considered in the design process:

- Green
- Environment
- Training
- Education
- Millennium Development Goals (MDG)
- Environment
- School
- Europe
- 2030
- Sustainable Development Goals (SDG)
- Pollution
- Circular Economy
- Youth Engagement
- Shaping a Green Future
- Citizen participation

3.1. Logotype

GreenSCENT Logo was originally designed during the proposal preparation phase, and further updated during project implementation, by BSC experts.

The printing logo can be put in various places, whereas the "Smart Citizen Education for a Green Future" slogan can be added or eliminated depending on the use. The suggested printing font is allows the user to read in a clear way the logo.

Figure 3 Final version of the Logotype

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The chosen colors represents the cultural and social identity of the logo and the need to underline the "green" message identified with the logo and the words used.

The colors scale from deep blue to light green represents the path to be followed in order to reach a cleaner and less polluted world, starting from blue economy until green economy.

Figure 4 Green scale of the logo

The yellow part of the logo with the T represents the Sun and the good use we can do of our principal star in order to develop a greener future in accordance to the Sustainable Development Goals.

Figure 5 Yellow part of the logo

The chosen colors encourage communication and the need to tell Citizens what is happening in our world due to climate change and how to act towards greener solutions. Yellow represents the sun but also the optimism to improve our life conditions through an adaptation to this world changing too fast. Green is also one of the colors that child and youth prefers as it represent freedom, clean environment and good quality of life. Finally the dark blue represent the oceans and their importance in our life cycle, in the meantime it also represents the blue economy.

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4. Website Features

4.1. Structure of the website

4.1.1. Homepage

This area includes provides access to the main website areas through the top-menu; a carousel shows relevant, emotional image related to the ecological transition, with keywords/phrases related to the GreenSCENT project. A brief introduction to GreenSCENT and the list of the SMART objectives complete the page content in this first release.

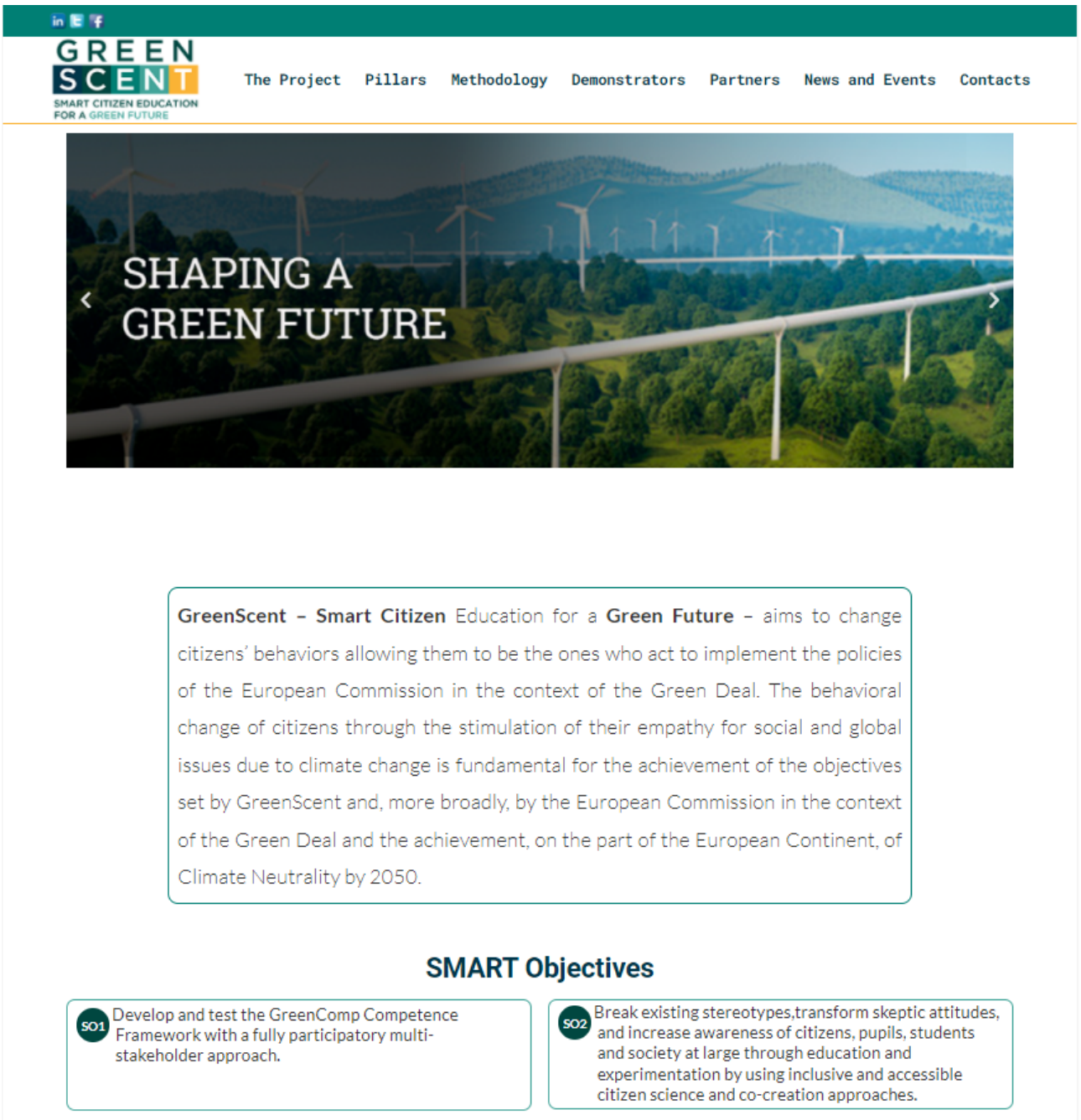

Figure 6 Homepage of the project website

4.1.2. The Project

This area explain in an "abstract" the concept and the work that will be developed during next three years with GreenSCENT project:

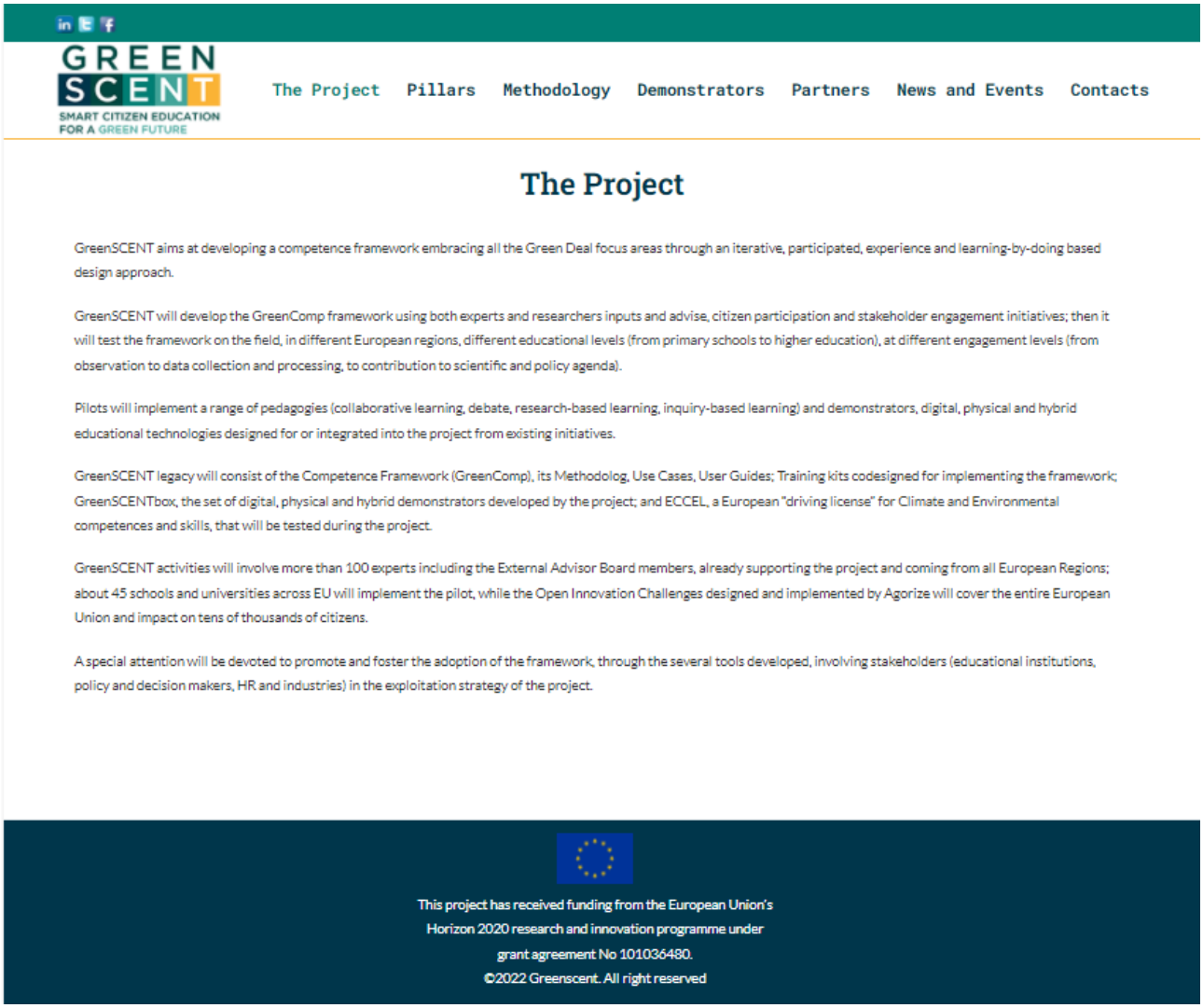

Figure 7 Website page project description

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4.1.3. GreenSCENT Pillars

This area includes a graphic view and a brief description of the six pillars, which the project is based on:

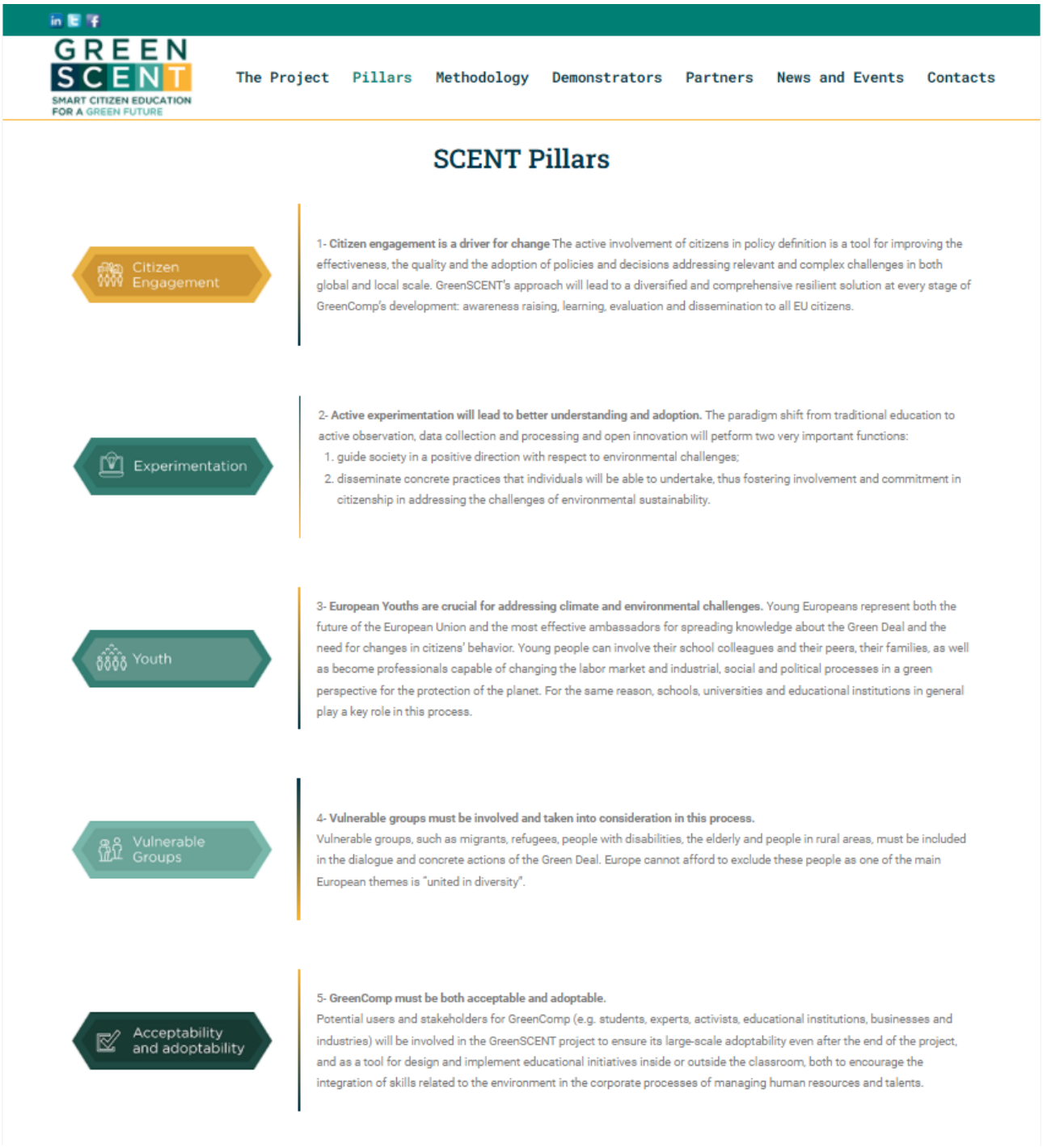

Figure 8 GreenSCENT Pillars

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4.1.4. Methodology

This area explain with graphics and with a brief description the methodology used and the 3 main phases of GreenSCENT:

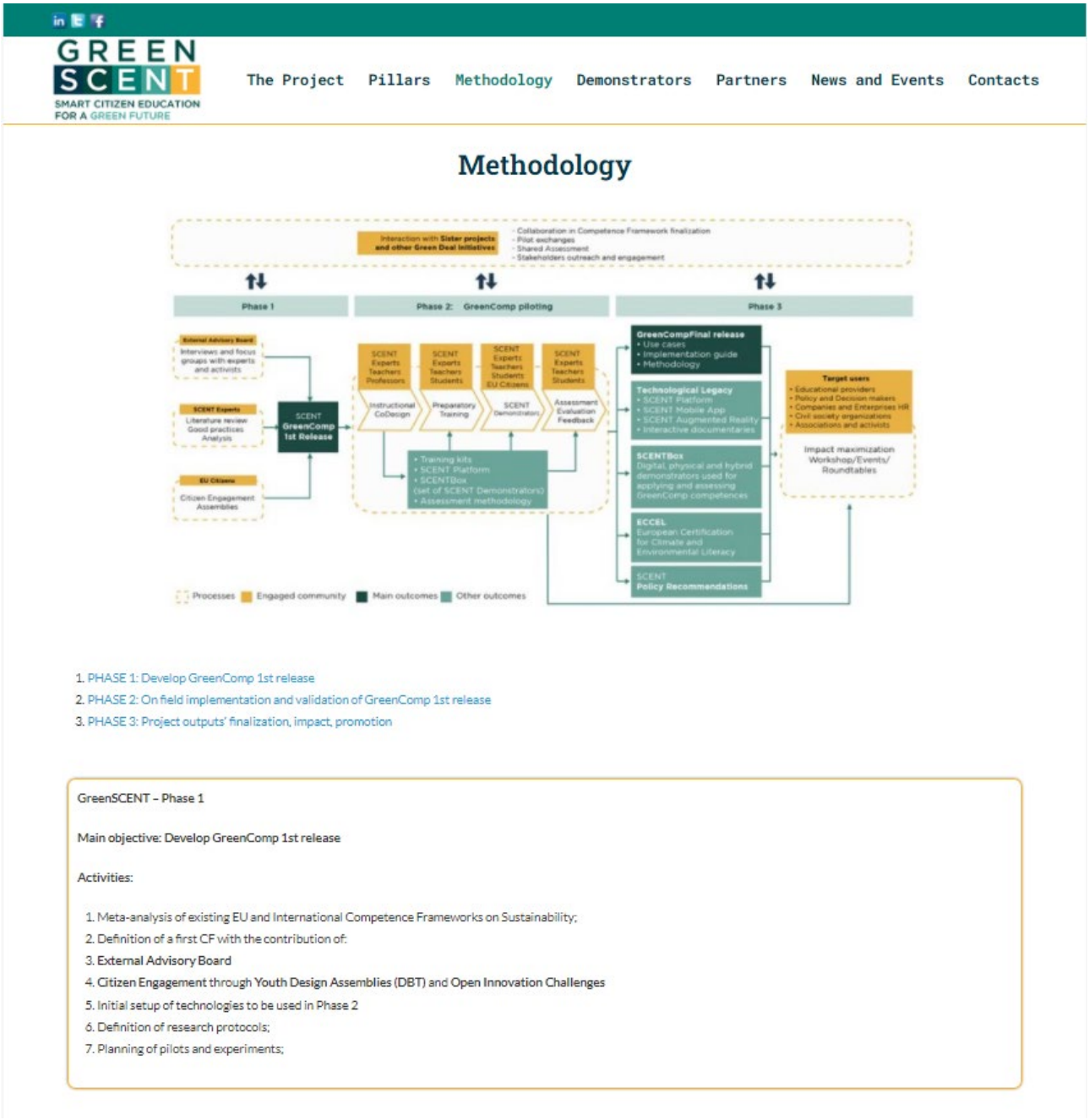

Figure 9 GreenSCENT methodology

4.1.5. Demonstrators

This area includes the nine demonstrators that will be used/developed during the three project phases:

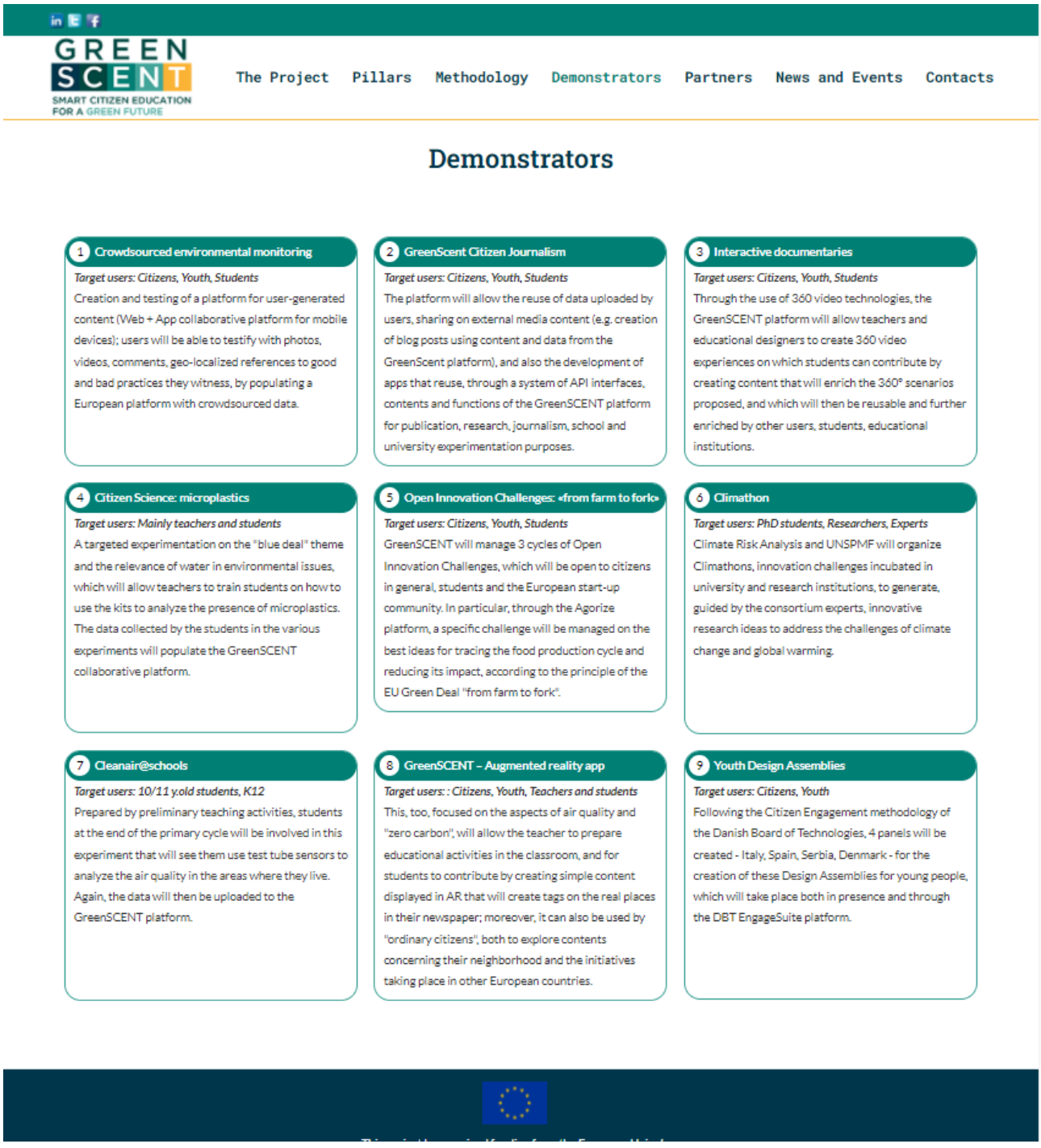

Figure 10 GreenSCENT demonstrators

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4.1.6. Partners

This area cover the description of all the GreenSCENT partners and their specific logo with a direct link to their websites:

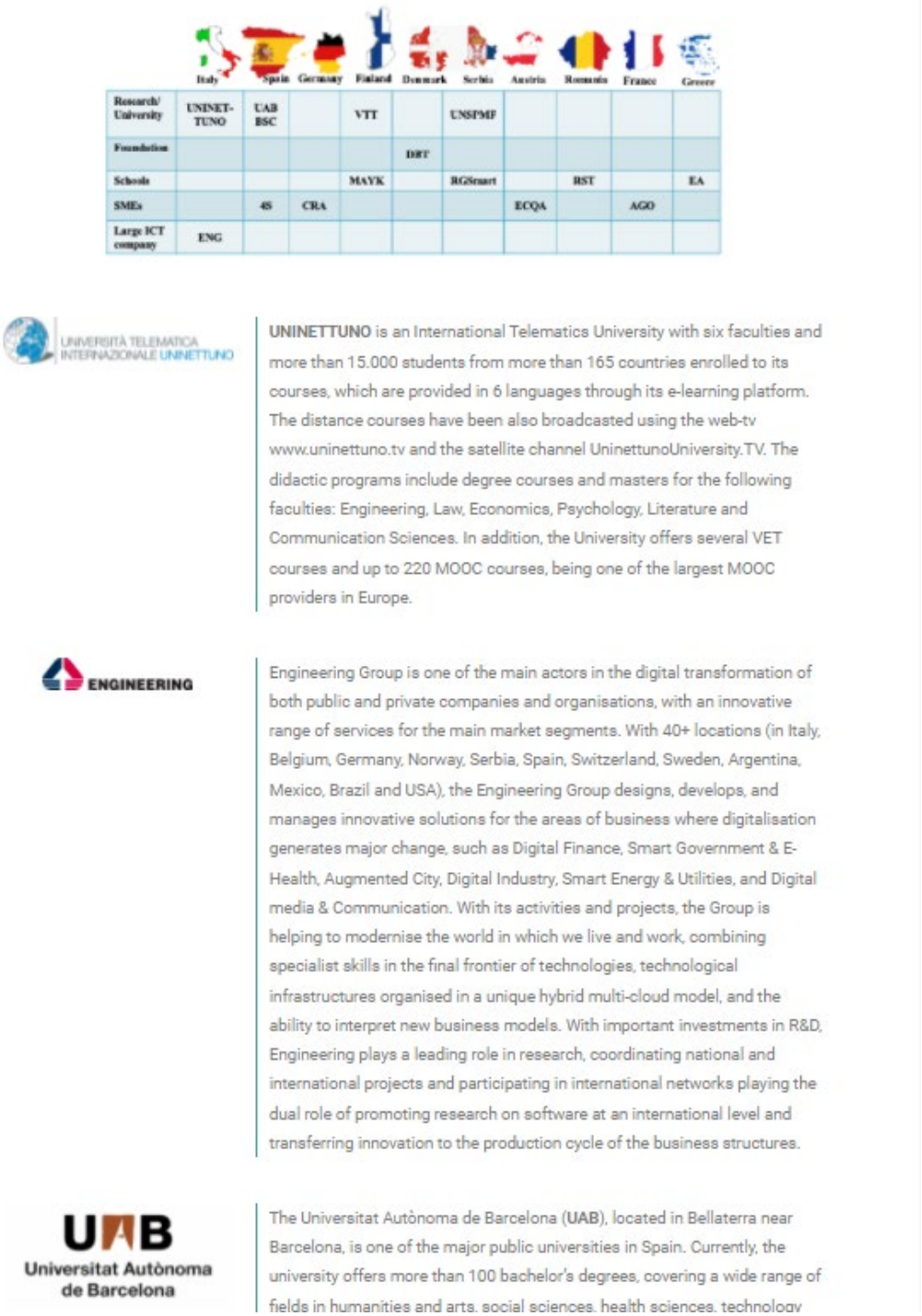

Figure 11 GreenSCENT partners

4.1.7. News

This area is populated through Wordpress main Blog Engine; it will list, in chronological reverse order, Events and News published as blog post using Wordpress dashboard.

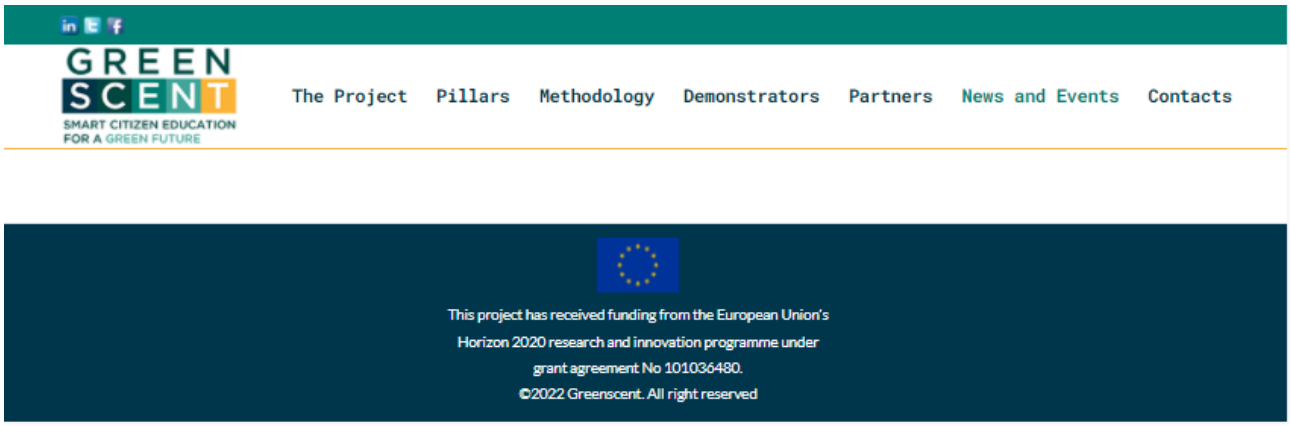

Figure 12 GreenSCENT news

4.1.8. Contacts

This area includes a contact form allowing anybody navigating the website (including non-registered / anonymous users) to get in touch with the GreenSCENT project team by sending an e-mail using the form posted in this page:

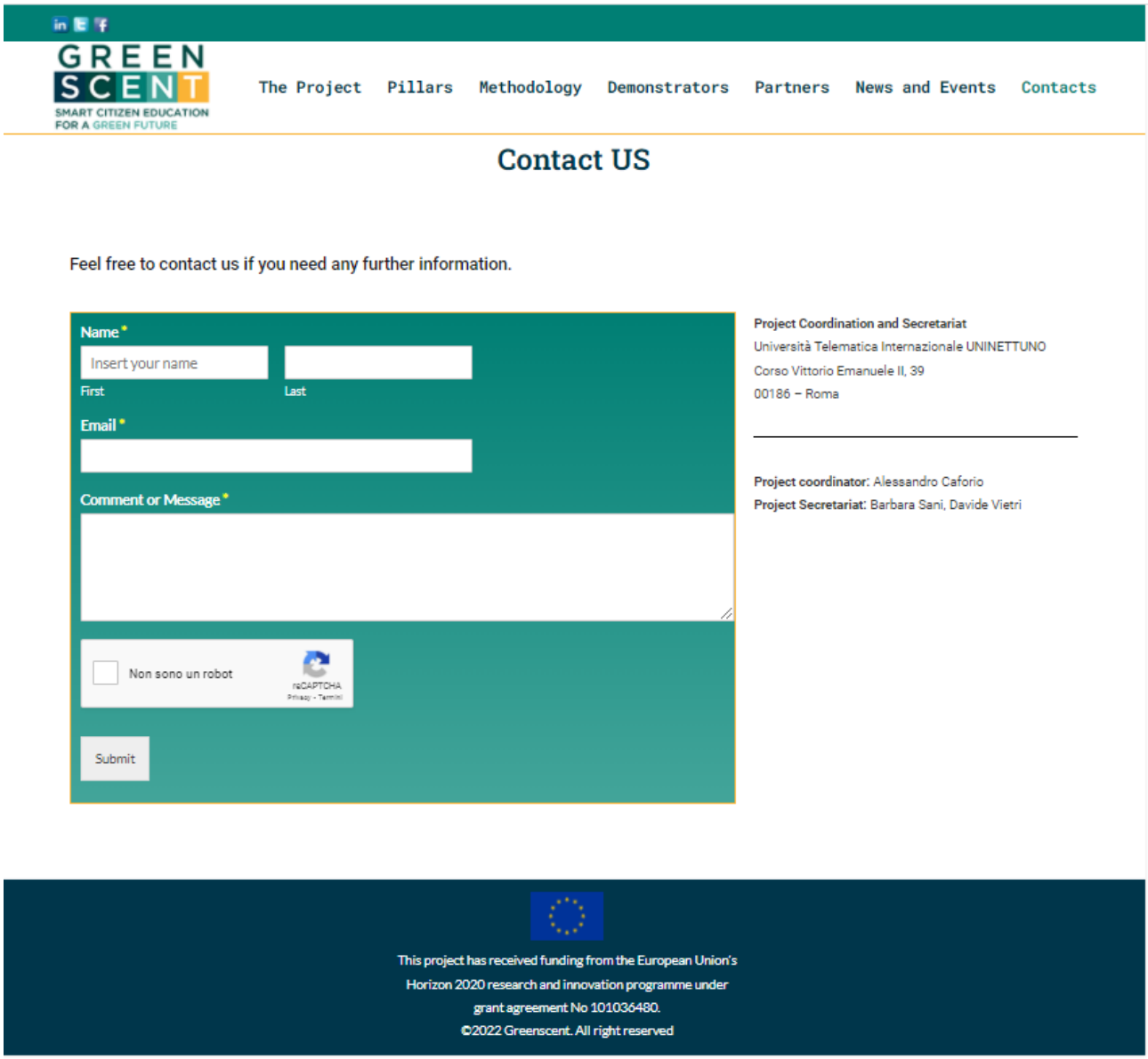

Figure 13 GreenSCENT "contact us"page

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5. Next Steps and developments

GreenSCENT Project started on 01/01/2022, the Kick Off Meeting will take place online[1] on 1st - 2nd and 3rd of February 2022. This deliverable 6.1 was due on 31st of January 2022.

The project website will be constantly updated during the project lifetime; the initial website structure is very simple and provides a quick overview of the main project components (partners, objectives, demonstrators) allowing to launch the kick off meeting with a "digital identity" of the project already available. The website already gives access to the GreenSCENT social media (Facebook page, LinkedIn page, Twitter account).

First activities and deliverables will generate new contents for the GreenSCENT Website, and specifically:

- A new page/area will be dedicated to **deliverables**, listing and allowing access to reports and documents with "Public" dissemination level;
- **News/Events area** will be constantly updated;
- "The project" section will be replaced with a **more dynamic representation of the project state** of the art;
- **GreenComp** 1st release (D1.1), foreseen at December 2022, will be both published as a standard, linear report, and made available **as a hypertext section on GreenSCENT website**, improving *searchability* and discovery for interested stakeholders.
- **New languages**, beyond English, will be added, for widening the awareness about project activities in the GreenSCENT consortium partners' countries.

Finally, new sections, contents and features will emerge as a result of the interactions among project partners and research participants from other organizations and EU society at large, and will be welcomed by project coordinator and the consortium, while these insights will be used as inspiration for further improving and evolving the project website.

[1] Due to COVID 19 Pandemic Disease, the KOM has been organized as an online meeting.