CoeGSS

Centre of excellence

D6.1 – CoeGSS Website and Brand

Grant Agreement	676547
Project Acronym	CoeGSS
Project Title	Centre of Excellence for Global Systems Science
Topic	EINFRA-5-2015
Project website	http://www.CoeGSS-project.eu
Start Date of project	October 1, 2015
Duration	36 months
Event due date	--
Dissemination level	Public
Nature	Report
Version	1.0
Work Package	WP6
Leading Partner	Top-IX
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Keywords	Website, dissemination
Total number of pages:	27

The CoeGSS ("Centre of Excellence for Global Systems Science") project is funded by the European Union. For more information on the project please see the website http:// http://coegss-project.eu/

Version History

	Name	Partner	Date
From	**Andrea Rivetti**	**TOP-IX**	**26/11/2015**
First Version	**D6.1 - ver. 0.1**		**26/11/2015**
Second Version	**D6.1 - ver. 1.0**	**TOP-IX**	**17/12/2015**
Reviewed by	**Marion Dreyer** **Daniel Field** **Carlo Jaeger**	**DIA** **ATOS** **GCF**	**15/12/2015**
Approved by	**Marion Dreyer**	**DIA**	**16/12/2015**

Abstract

This document is related to the first deliverable as far as Work Package 6 is concerned.

The work package on dissemination and collaboration is the keystone to securing the project success and aims at establishing a self-sustaining interface between stakeholders (politics, business, public) and global systems science (GSS) expertise.

The first deliverable is about the design of the brand identity of CoeGSS as well as the implementation of the first version of the project website.

For each of these two activities the document describes the general objectives, the current implementation in terms of approach, tools and resources and the future development.

Table of Contents

1 Introduction

The Centre of Excellence for Global Systems Science (CoeGSS) aims at leveraging the accumulated and growing knowledge developed by the High Performance Computing and Global Systems Science communities in order to tackle global societal challenges. Therefore, in order to set itself as a hub fostering the merge between the two communities and the interaction with stakeholders dealing with global problems, CoeGSS aims at defining and positioning its own distinguished brand and at disseminating its activities and results through a website.

The brand identity has been set through the definition of a logo, a claim and a coordinated image, whose development is described in the current document.

The website that has been published and delivered at the time of writing has been developed in order to reach the objectives stated in this document, which have been set according to the overall vision and long-term goal of the project.

The website is evolving according to the roadmap outlined in this document to meet the full set of objectives.

The details of the implementation, the software documentation, the process followed to implement the website functionalities and the tools that have been used are covered in this document as well.

2 Brand Identity

2.1 Objectives

Having a strong and clear brand identity plays an important role in identifying and allowing “at glance” recognition within different media (web, social media channels, scientific publications, press releases, etc.). Moreover, branding with a good visual impact helps to expose the Consortium to a broader audience, not necessarily limited to HPC and GSS insiders.

For the CoeGSS, which aims at being an acknowledged player and a centre of excellence in the scientific, industrial and “policy-making” community, a well-defined brand identity is therefore a key-factor for implementing an effective and distinctive communication strategy.

There also is a need is also for consistency across all the materials and tools produced during the project through a common "look and feel" and for fostering the core values that are at the basis of the Consortium. This requires a brand identity that is easily adaptable while maintaining its distinctive characteristics.

2.2 Implementation

2.2.1 Preliminary research

The design for creating the brand identity of CoeGSS was primarily focused on defining the founding principles and values of a centre of excellence in the field of Global Systems Science. All the design process has been carried out around these principles. At the same time the preliminary study was based on the research of clear and easy to remember "visual objects", with the power to characterize the role in the HPC-GSS community.

Before realizing any graphic proposals, an in-depth study of the visual identities of "competitors" and "other players" has been made. This was extremely useful to have a clear understanding of the similarities as well as the differentiating features in the HPC and GSS fields.

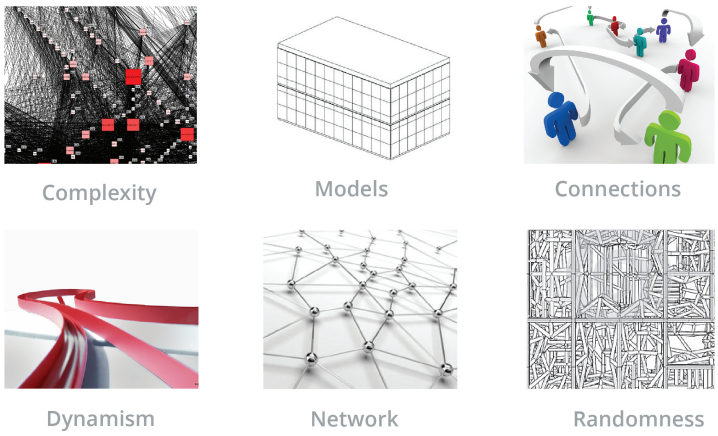
2.2.1.1 Values and visual rendering

By executing an accurate context analysis, a bunch of keywords were identified as typical and distinctive for the project topics:

- Complexity

- Models
- Connections
- Dynamism
- Network
- Randomness

The following step was to find representative visual images for each of the above keywords, as shown in the picture below.

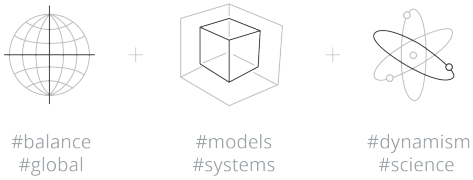


A synthesis process was then performed in order to identify three main “MACRO-CONCEPTS” strongly related to the CoeGSS mission; they are listed below with a short description:

- "GLOBAL" - to describe the level of impact and the role that the centre of excellence is going to obtain without any limits imposed by territorial boundaries;
- “SYSTEMS” - to describe the systemic approach that characterizes the services and insights provided by CoeGSS;
- "SCIENCE" to describe the macro-sector where the project is placed.

These macro-concepts help to highlight the main values of the projects. Particularly they were associated to three important project attributes (“balanced”, “systemic”, “dynamic”).

The result was a graphics processing that summarizes all the steps described above.

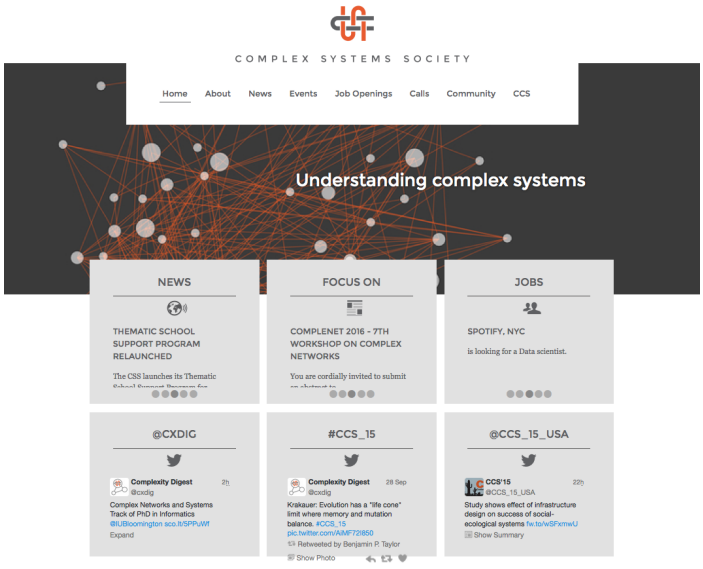


This logical path drove the graphic implementation, from the choice of the font to the definition and creation of the visual logo.

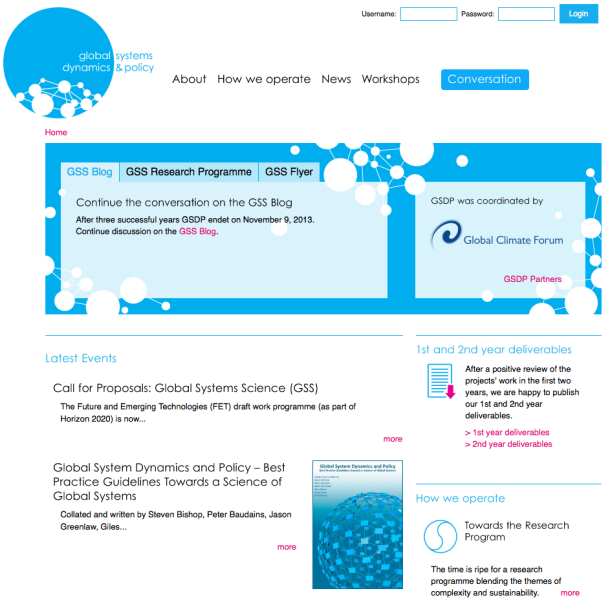
2.2.1.2 Competitors and other players

In the process of analysis and research, a selection of reference-cases were identified in order to draw-up a benchmark.

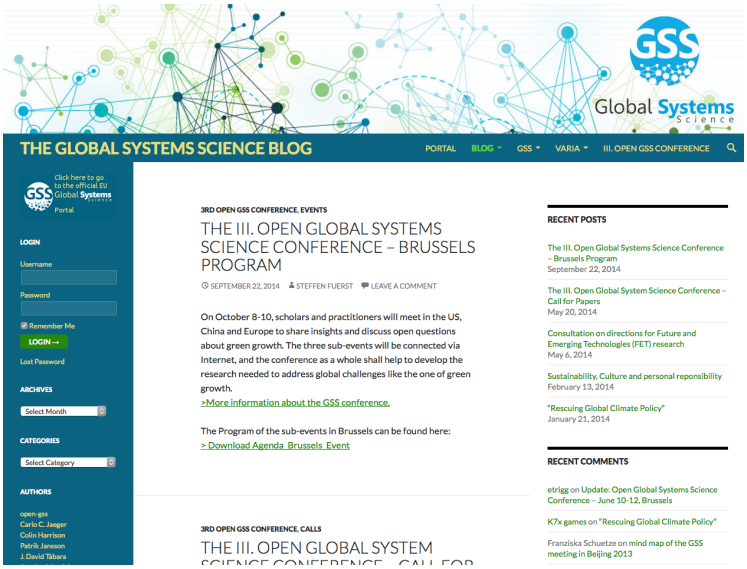
http://global-systems-science.eu



http://cssociety.org



http://gsdp.eu



http://global-systems-science.org

2.2.2 Logo design

The logo design was based on the preliminary research described in the above paragraph and it is structured through the following elements.

2.2.2.1 Naming

The acronym must be a constituent part of the logo and at the same time it should represent in a clear and precise way the different elements of the project.

The current form of the acronym has been widely discussed among the partners of the project and it was uniquely considered as the most clear and effective.

Acronym discussed proposals:

CoeGSS

CoEGSS

GSS centre

Acronym selected version:

CoeGSS

For the clarity of the message, the inclusion of an extended claim was considered mandatory in some specific situations:

*Extended Claim: "**Centre of Excellence for Global Systems Science**"*

2.2.2.2 Typography

Two different font styles have been selected to be employed in CoeGSS communication activities both in paper and digital form.

Particularly:

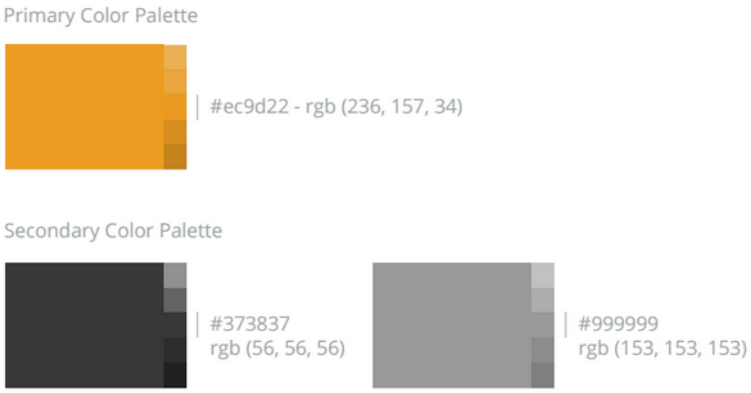
Optima Font (Bold e Regular): LOGO + DOCUMENT TITLES

Open sans (Bold, Regular, Italic): DOCUMENT TEXT

2.2.2.3 Colour palette

The selection of a clear palette enables to exploit the communicating powers of colours on the human mind. Indeed, most of the feelings conveyed by a brand are characterized by the chromatic choice made.

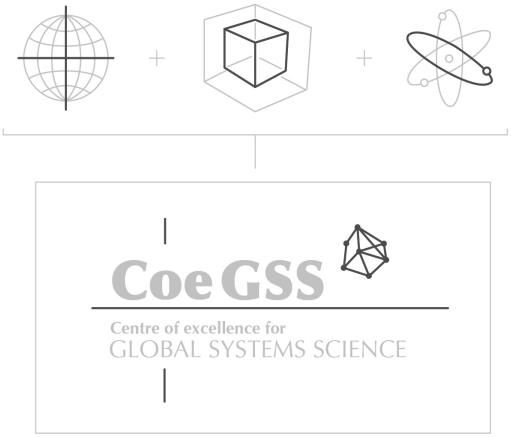
The selected palette is shown in the picture below.

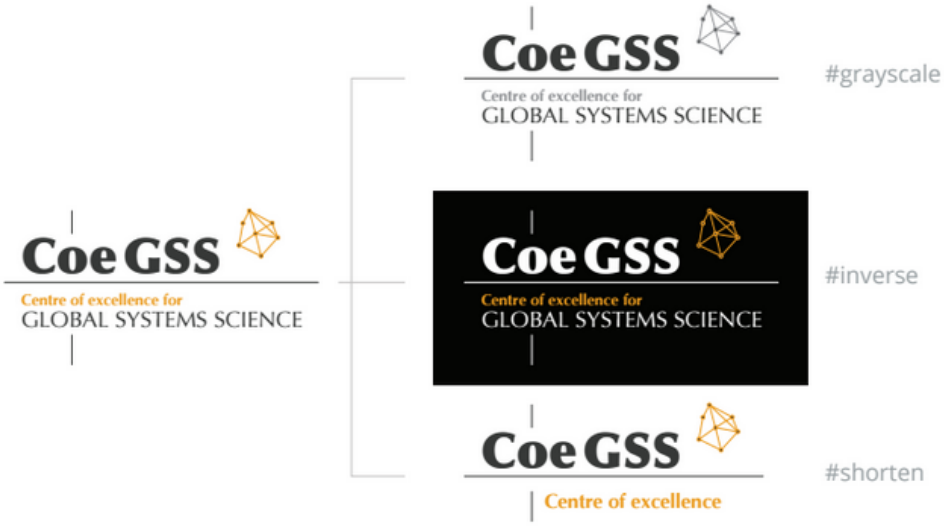


2.2.2.4 Final logo layout

The final version of the logo is the result of the synthesis process that puts together aspects such as "naming", "typography" and "colour-palette" with the three graphic elements selected to represent the project and discussed in the previous section. The positioning of the lettering (CoeGSS) and the presence of the two perpendicular axes make the logo well-balanced, modern and distinctive. Furthermore an iconic element

has been added; it represents a mix of the “system” and “dynamism” concepts through the usage of lines and nodes that symbolize a network or a graph. The “superscript position” of this graphic element suggests a form that is constantly moving.





2.2.3 Coordinated image

After the definition of the main characteristics such as naming and logo, we proceeded by drawing up the guidelines for the implementation of the brand image in all its applications.

2.2.3.1 Website declination

Due to the strong connection with the web/Internet topics, the first concrete declination of the logo was related to the project website.

Particularly:

- a dark-coloured background was chosen to enhance the contrast of the colours of the logo in its "reverse" version (version to be used for printed material has a white background);
- a full-width image was chosen in order to incorporate the colour palette.

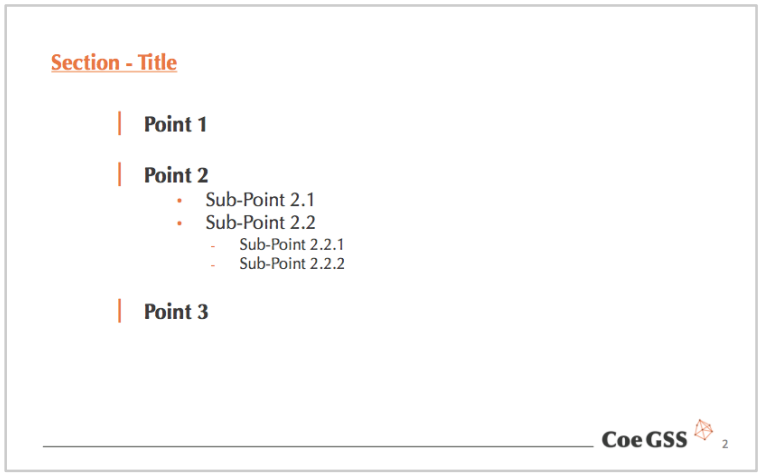
For more detail about the website development, see the section 3 of this document.

2.2.3.2 Presentation and document layout

Another job, within the Coordinated Image activity, was the development of the template for the presentations (made in PowerPoint) as well as the graphic layout for the written documents.

In both cases headers and footers include the logo and the page number, except for the first page (or slide) where the logo appears in a central position above the title of the document.

The graphic and stylistic choices applied are strongly consistent with the defined general brand identity. Using a clean white background meant, however, within the PowerPoint template presentation, some little modifications to the colour: the original yellow/ochre was replaced with a similar but darker colour (RGB 230, 120, 58) to increase the contrast.



2.3 Future development

What is reported in the previous sections represents the initial step in the definition of CoeGSS brand identity.

In the following months, future declinations and adaptations of the brand identity are planned both in the website evolution and, mostly, in the publishing design (by about "publishing design" we mean the creation and customization of all the paginated contents: publications, reports, newsletters, press releases, etc.).

The process of improvement and development in the graphic design will be tuned on the basis of the overall strategy adopted by the Centre of Excellence.

3 Website

3.1 Objectives

The project website is the “front page” as regards communication, dissemination of the activities carried out and of the results achieved. Moreover it is the platform aimed at the interaction with the different stakeholders.

The main goals to be achieved through the website implementation are:

- setting of a recognizable web presence;
- fostering the development of a joint HPC & GSS community;
- collaboration with existing and future activities in the HPC-GSS domain;
- dissemination and feedback collection as regards project activities;
- discovery, validation and engagement of potential “customers” of the Centre.

According to these general objectives, a communication strategy has been agreed upon by the consortium members. It will leverage feedback and suggestions that will be given by the addressed community in order to maximize the impact of the project results and to guarantee the long term engagement with the targeted stakeholders, which is deemed key to achieve the sustainability of CoeGSS.

The strategy develops along three main axes:

- Web presence and results dissemination
- Community Building
- Customer validation

The following paragraphs will describe the activities carried out and the possible steps to be taken during the project in order to constantly improve the results achieved.

3.1.1 Web presence and results dissemination

The project website represents the authoritative source of information about the Centre of Excellence for Global Systems Science, where constant updates about the consortium, the progress of the activities and the results are published. The overall goal of dissemination activities is to maximize the audience reached by the vision, the initiatives, the pilots carried out and the results achieved by the CoeGSS project. The dissemination activities will contribute to creating a shared language, a common approach and a

continuous effort aimed at solving vital problems using innovative methods and high performing technologies.

3.1.2 Community building

The higher level goal is to build, nurture and promote a growing community capable of leveraging HPC and GSS related knowledge in order to find smart, effective and sustainable solutions to critical global challenges.

The Community Building process is designed to be effective on three spheres of action:

- internal, among project partners
- inclusive, among HPC and GSS insiders and experts
- public, aimed at engaging third parties and potential users interested in the services provided by the Centre of Excellence

The community building process will try to facilitate the creation of a community with strong bonds between their members and enhance the number of them, so as to reach a larger audience. The process itself will be conducted by digital means and physical ones (events, conferences, workshops, etc.). As for the digital means, they are essentially functionalities and sections hosted within the project website.

The website functionalities and the sections, oriented toward community building, will try to respond to the following emerging needs:

1. Support the merging of the High Performance Computing and the Global Systems Science communities: a stronger integration between researchers, experts and practitioners of these two branches will, from one end, foster the possibility of the CoeGSS project to deliver meaningful and important results and, from the other, benefit the related scientific communities in terms of knowledge creation, sharing and employment.
2. Create a central source of information: the many initiatives and projects carried out at European level over the years would be enriched by a single point of entry for searching information and data on them. The goal is to promote synergies between the existing websites related to HPC-GSS and the CoeGSS website to make it the collector of information on the subjects.
3. Create a digital repository of HPC-GSS materials: this need is strongly related to the previous one, still on a different level because it is dedicated to building a digital repository of articles, publications and scientific papers related to the HPC-GSS field.

3.1.3 Customer validation

The website must be functional in allowing the Centre of Excellence to advertise and make available different services, define different strategies to engage third-parties and get feedback from the actual users accessing the services. Also entities involved in the Pilot Projects will be extremely important in providing feedback for the evolution of the Centre activities and in evaluating how the activity presented matches their needs and expectations.

The Business Model (designed within the WP2) to provide resources through the service portal (designed within the WP5) will leverage the expertise of project partners, HPC-GSS community and potential interested stakeholders. The goal is to validate the assumptions on which the business model is based that, by reflection, will influence the design of the service portal. In particular, the interest of potential "customers" will be tested against different possible offers and related terms-of-use options.

3.2 Implementation

The website is published at the URLs:

http://CoeGSS.eu/

http://CoeGSS-project.eu/

http://excellence4gss.eu/

The package containing all the software and contents of the website at the time of writing is also published as a ".zip" archive as a WP06 deliverable in the project's SVN official document repository.

3.2.1 Design and software development processes

3.2.1.1 Design approach

TOP-IX employs a user-centred design approach, with the aim of developing a tool built around users' habits, needs and expectations. All the processes are meant to provide the users with something they could enjoy rather than forcing them to adapt to a standard product.

The design process consists of the following steps.

1. Requirements analysis: the client requirements are analysed and a draft list of the macro-functionalities is provided.

2. User needs identification: the goal of this step is to “merge” the requirements coming from the client with the users’ needs to obtain a first version of the sitemap.
3. Navigation design: the user experience and the most important web pages are outlined taking in consideration the site map and three methodological principles: Visibility, Accessibility and Legibility.

    - Visibility: the page elements should help the users in creating a relevant “picture” of the web page, giving immediately the information of the options at their disposal.
    - Accessibility: the page elements should convey information without any misunderstandings and in a hierarchical manner: from very broad and light definitions to more detailed one, supplying different options tailored to the knowledge of different users.
    - Legibility: the page elements should use adequate fonts and labels, as well as having readable background colours, so as to not fatigue users during navigation. Also, text and messages should have a consistent formulation in line with the overall style of the website.

At the end of the process a “mock-up” of the website is delivered, where all the webpages are illustrated in their user interaction and graphical aspects.

3.2.1.2 Development approach

The TOP-IX Consortium employs the Scrum framework for managing and developing its software projects. The Scrum approach is based on iterative and incremental deliveries, providing full working code at every step. It ensures the flexibility to respond to unpredictable changes and to proactively manage resources in terms of personnel, time and costs. The Scrum framework follows a well-defined process, which can be divided into two specific moments.

1. Product Ticketing

    Following the requirements emerged during the design phase the project overall work is divided into "Tickets". A Ticket clearly defines the functionality that must be implemented, describing:

    - the benefit: indicating what type of value will be delivered to the product;
    - the role: indicating which type of user will employ the functionality;
    - the goal: indicating what functionality it will provide.

EXAMPLE: In order to be informed on CoeGSS activities (benefit) as a general user (role) I want to subscribe to a mailing list (goal).

Once the Tickets covering all the product features are identified, they are evaluated in terms of effort required for their completion on a weighted five levels scale. The Tickets are then inserted on the product backlog (a list that gathers whatever is required in order to provide the final product) and prioritized on a three-level scale according to project goals and constraints.

2. Product Implementation

   In the Scrum framework, the elemental unit of implementation is the "Sprint", which is a work block with a fixed duration, usually two weeks. The Sprint goal is to provide working code for the Tickets.

   The implementation process consists of iterative cycles of Sprints composed by three consecutive steps:

   I. Sprint Planning: a kick-off meeting to identify the human resource responsible for the execution and the tickets to be implemented in the sprint on the basis of their weight and priority.
   II. Sprint Execution: the planned work is implemented during sprint time-span.
   III. Sprint Review: a final meeting to check and monitor that every tickets has been duly implemented.

   The final version of the product is thus the result of multiple Sprint cycles.

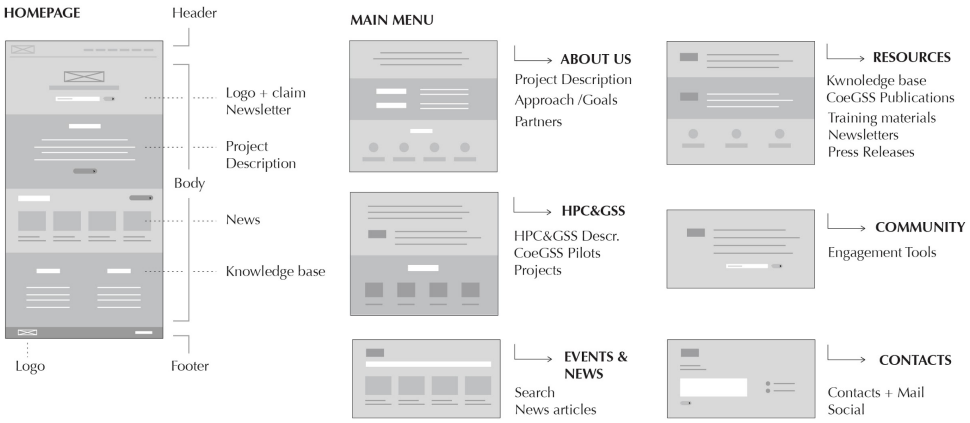
3.2.2 Information Architecture

The website must be organized to fit the material produced by the project and to reflect the structure of the Centre of Excellence, to give to the visitors a clear indication of which activities are carried out by the project, what the Centre consists of and where specific information can be found.

Following common Web standards, the page is structured in three parts:

1. Header: it hosts the main menu bar containing the Menu buttons and the EU flag. It remains the same throughout the website.
2. Body: it hosts the content of the page and changes accordingly throughout the website.
3. Footer: it hosts legal information on the project and the main contact info. It remains the same throughout the website.

The content of the pages is described in the next paragraphs.



3.2.2.1 Landing page

This page is reached when opening the website and when clicking on the CoeGSS logo in the main menu bar. It contains:

- large CoeGSS logo and claim;
- form to subscribe to the project mailing list;
- brief preview of each section with a link. Previews differ according to the relative section (Carousel, recent posts, etc.).

This landing page gives an overview of the project according to its brand identity and gives users the chance to connect to the community by subscribing to the mailing list.

3.2.2.2 About us

This section contains general information on the project and the partners, in particular:

- a description of the project and about the Centre of Excellence;
- approach and methods adopted in the project;
- partner list with links to their institutional websites.

The section role is to provide the "business card" for the project and the partners/consortium.

3.2.2.3 Resources

This section of the website provides a repository of relevant resources for the Centre of Excellence and the HPC-GSS communities. Particularly, during the project the following types of content will be uploaded and published:

- articles, publications and scientific papers: all this information is filterable and searchable following an established taxonomy;

- public documents produced by the project partners about the progress of the Centre's activities and the results;
- training material (videos, presentations, ...) produced and selected by the project partners;
- project past newsletters;
- press releases.

This section is meant to be extended in contents and search functionalities in order to become an effective and comprehensive knowledge base.

An effective search, filter and tag mechanism is planned to make the section flexible and useful in locating the material of interest for the website visitor.

In order to nurture the creation of a vibrant community, it is necessary to provide a growing curated collection of resources about the GSS and HPC fields. Given the multiple fields of possible applications, the intention is to stimulate the novel and effective use of combined HPC & GSS knowledge to face complex challenges and promote global sustainable development.

3.2.2.4 HPC-GSS

This section contains:

- a portfolio of projects and initiatives relevant in the HPC/GSS field;
- pilot projects promoted by the CoeGSS project itself.

This section is a way to establish an effective connection with other projects and initiatives in the HPC and GSS fields, with a special focus on those projects which might be identified as a bridge between the two fields

Every project listed has a dedicated page where the relevant information are displayed. The projects portfolio is meant to be filterable and searchable, in order to provide a smooth navigation. Moreover the taxonomy employed within the "Resources" section will be exploited here, in order to give a common framework for better understanding differences and peculiarities in every sphere of application.

3.2.2.5 Community

The "Community" section hosts the tools for which an active involvement of users is required, enabling the merging of the HPC and GSS communities and supporting the decision-making process as far as the CoeGSS business model is concerned.

It is thus possible to divide those tools into two families:

1. Merging HPC-GSS communities. Tools aimed at creating a common knowledge base shared between the Centre of Excellence partners as well as functionalities aimed at stimulating debate and deep analysis of complex problems will be investigated and tested, keeping as permanent functionalities those that will be deemed more useful by the interested stakeholders. A partial list of potential tools to include under testing is:
    - Wiki: allowing collaborative creation of content.
    - Forum: hosting discussions of the community.
    - Ideas gathering: enabling users to propose concise ideas on relevant subjects.
2. Supporting business model definition. These tools are designed to support informed decisions on the choices to be made for identifying the most relevant business model in the CoeGSS area of impact. Decisions will embrace a wide range of subjects: CoeGSS positioning in the relevant market, definition of the customer segment, definition of services to be delivered through the portal and processes for accessing those services. The business model definition (designed within WP2) will run as follows:
    - A hypothesis is made on the base of the available information.
    - The hypothesis is tested gathering opinions and feedbacks from stakeholders. This is the step where digital tools of the website might be employed. Those tools will essentially deliver poll and survey functionalities.
    - The hypothesis is confirmed or rejected; in the latter case the process restarts from the beginning.

Based on the nature of information most of these tools will require an authentication process for users to access and interact. Moreover, according to the specific stage of the main projects different tools may be activated, removed from public version or limited to a specific class of users.

3.2.2.6 News and Events

This section is intended to contain:

- project announcements;
- upcoming events hosted by or related to the project and in the HPC-GSS community at large;

- feed from other websites/social media.

The main goal of the “News and Events” section is to create a frequently updated section to aggregate news about the Centre of Excellence, about upcoming events in the GSS and HPC fields and relevant updates from other areas of research that are impacted by GSS and HPC.

In particular, other projects funded by the European Commission related to the HPC and GSS areas might contribute to this section highlighting their activities and events, thus maximizing their audience. Of course visibility will be given also to conferences and other events that members of the Consortium will participate at in order to give evidence of how the activities of the CoeGSS project are gaining recognition and relevance in different sectors.

3.2.2.7 Contacts

This section contains:

- mail form for messaging the project consortium;
- social media links (Twitter in the first instance,...)

This section gives website users a way to connect directly to the project owners and it is the collector of social media accounts related to the project.

3.2.3 Software documentation

The current implementation of the website consists of a HTML frontend developed with jQuery and Angular framework. These technologies and tools are used:

- HTML
- CSS
- Javascript
- Php
- JSON
- Mandrill API
- Google Form API
- Twitter API
- Google Analytics script

Every static page contains a Google Analytics script to track users behavior.

The publication list is actually managed with a JSON (JavaScript Object Notation) file which is read by javascript functions to filter and format the information

The “newsletter subscription form” is implemented using a Google Form and a Google Spreadsheet. The javascript code grabs the user request and updates the Google Spreadsheet

As required by EU regulations, a message at the bottom of the page informs the users that the website makes use of cookies. The user can dismiss the message and/or read more information about cookie usage.

3.3 Future Evolution

The current implementation of the website is meant to establish a well-defined web presence since the early stages of the project. It is a starting point for the creation of a richer platform with functionalities such as community building, customer validation and content management tools. These functionalities are going to be defined in detail (eg. which users can access which content and with which permissions, how can users register, etc) based on the actual needs of the community as it progresses during the life of the project. This section contains a brief overview of the features that are being designed and of the tools that are being considered for deployment in the website.

3.3.1 Content Management System functionalities

A web Content Management System is required for the growth and evolution of the website functionalities in order to provide:

- dynamic content management, such as news and blog posts;
- multiple authors from each project participant to publish content directly;
- user self-registration process;
- comment system that can be activated for specific content for logged-in users;
- filtering and tagging of content;
- media library for published material;

The CMS that has been selected for integration in the CoeGSS website is Wordpress due to:

- wide adoption, most authors already familiar with the system;
- availability of a large library of plugins for user interaction (polls, feedback forms, social media, etc);

- integration with other data sources via custom plugins if needed;

The design of the website after the migration to CMS will be kept as close as possible to the current look and feel with an attention to guarantee universal accessibility.

3.3.2 Community building tools

The planned development of the website is going to focus on the selection of appropriate tools to assist the development of the community of project participants and the community of third parties external to the project. The latter includes stakeholders, users interested in HPC resources and in the GSS expertise, researchers from other projects or initiatives.

The functionalities that are being evaluated are:

- collaborative wiki system, for project participants and if needed for external users
- online forum or comment system

3.3.3 Customer validation tools

The customer validation activities mainly consist in a way to collect feedback from stakeholders in general about services made available by the Centre.

The tools that are being evaluated for the future development of the website are functional to implementing future features such as:

- online polls
- web statistic analysis
- newsletter

3.3.4 Search Engine Optimization

Search Engine Optimization (SEO) includes all those actions performed in order to improve the positioning of the pages of a website in the "organic" results (also called "natural" results) returned by search engines in relation to the keywords that are considered more strategic.

The algorithms used by search engines could appear to be too complex and search engines give little information about how a website can achieve better positioning therefore getting more traffic.

A careful analysis of the main guidelines provided by the three main search engines (Bing, Google, Yahoo) can reveal that many factors affect the probability of a particular website appearing in the first page of results. Some of these factors are:

- number of other websites linking to the website
- content of the pages and its quality in relation to the specified keywords
- weight of the pages and the URLs pointing each page
- presence of a hierarchy of links rooted at the main page that reaches any page in the website, better if links are static and made up of meaningful text
- presence of precise and descriptive tags associated to each page
- frequency of website updates
- changes in search algorithms and other factors

Best practices based on these factors are difficult to follow for a static HTML-only website. Porting the CoeGSS website from a static implementation to a dynamic CMS implementation using Wordpress will allow the use of plugins that will optimize the way search engines index the website based on the principles detailed above and will make it possible to share the content on social networks in the most accurate way.

The main points to focus on are:

- Indexation
- Accessibility
- URL Structure
- Titles / Descriptions
- Meta tags & Microformats
- Images
- Social Media

The Wordpress plugins that are best suited to improve these seven basic points for best SEO are (in alphabetical order):

- All in one Seo Pack (https://wordpress.org/plugins/all-in-one-seo-pack/)
- Yoast SEO (https://wordpress.org/plugins/wordpress-seo/)

After a careful analysis the Yoast SEO plugin has been selected for the better granularity of its options, the available features and the best chances of getting improvements in the medium term. During the activity of the project the opportunity of introducing other

changes can or adopting other solutions will be constantly assessed based on the results achieved.