

# D6.2 – FIRST ANNUAL REPORT ON COMMUNITY BUILDING

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Responsible scientist/administrator	Leonardo Camiciotti (TOP-IX)
Contributor(s)	Luca Cicchelli (TOP-IX) Andrea Rivetti (TOP-IX) Luca Broglio (CSP)
Internal reviewers	Ilona Cieslik (ATOS), Marion Dreyer (DIA)
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## Abstract

This document covers the activities aimed at community building carried out in the Task 6.1 of the Work Package 6 during the first 12 months of the CoeGSS project.

The work package on awareness creation and community support is the keystone to secure the project success and aims at establishing a self-sustaining interface between stakeholders (politics, business, public) and experts in the global systems science (GSS) and high performance computing (HPC) fields.

This deliverable is about building the community within and around the CoeGSS Project.

For these activities the document describes the general objectives (section 2 and section 3), the current implementation in terms of approach, tools and resources (section 4 and section 5) and the future development (section 6). Current situation regarding the execution of the Community building strategy is also outlined in this document (section 4 and section 5 in particular).

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# 1 Introduction

This deliverable presents the first project year progress of task T6.1 (Community Building, CoeGSS Brand and Website) in WP6 "Awareness Creation and Community Support", with specific focus on activities aimed at (CoeGSS) Community Building.

This task is closely related to other tasks within the Work Package 6 given that, for example, community building can occur through awareness creation which is one aspect of dissemination (e.g. in the form of a newsletter) or through personal engagement which is a form of collaboration with other people, projects, or institutions. This deliverable is therefore closely related with D6.5 "First annual report on training, standardisation, collaboration, dissemination, and communication". In order not to overlap information completely, there will be references to D6.5 whenever necessary.

Similarly, as the WP6 activities are key to the project's aim of establishing a self-sustaining Centre of Excellence for Global Systems Science, this deliverable is closely related to D2.1 "Stakeholder Analysis and Initial Sustainability Model" and will therefore reference the latter, instead of repeating information, whenever possible.

The following chapters provide a description of the pillars of the community building strategy (section 2) and a classification of stakeholders in the CoeGSS Community (section 3). Then, a description of the tools used is provided (section 4) followed by the actions done in the first year of the Project activity (section 5). The final chapter (section 6) wraps up community building at the current stage of development and shows next actions to enforce the CoeGSS community.

The CoeGSS project brings together the power of high-performance computing and some of the most promising thinking on global systems in order to improve decisions in business, politics and civil society. It aims at establishing a Centre of Excellence for Global Systems Science that provides advanced decision-support in the face of global challenges availing of High Performance Computing to empower Global Systems Science to address extremely complex societal and scientific problems.

Further information about synthetic information systems, or the three pilot studies of the Centre of Excellence for Global Systems Science – Health Habits, Green Growth, and Global Urbanization – referred to as "pilots" in this document, can be found in the deliverables from Work Package 4 of the project.

## 2 The pillars of the Community Building Strategy

The CoeGSS project defined a strategy to grow a community interested in the disciplines of High Performance Computing (HPC) and Global Systems Science (GSS).

The strategy CoeGSS is following to build its community is an integral part of the 3-years roadmap to reach the sustainability of the Centre of Excellence described in deliverable D2.1 - section 7.4 which includes steps to define business models, evaluate the markets where the Centre can offer commercial services and leverage the stakeholders in order to assess which proposals are more viable based on their feedback. The three main pillars on which it is based are:

- definition of the CoeGSS Community;
- implementation of the tools needed to engage the identified target audiences;
- definition of the actions through which the community is created and grown.

These three pillars are the result of several tasks performed by different Work Packages.

The different target audiences identified within the definition of the Community are engaged starting from the internal community of project participants and extending the Community Building actions progressively towards the audience outside the project, consistently with the description of the CoeGSS ecosystem by WP2 in deliverable D2.1 - section 3.

The following section of this document details the definition of the target audiences and lists the set of tools, which are subsequently used as categories to organize and describe the related implemented actions.

### 3 Definition of the CoeGSS Community

The CoeGSS community is being created by the project around the GSS and HPC expertise of the project participants and will be expanded throughout the life of the project. The Centre of Excellence needs to engage a diverse set of stakeholders in order to have the expertise and know-how needed to offer complete solutions to its potential end users.

The CoeGSS Community is also going to be expanded in order to include the potential end users of the services of the Centre of Excellence. Then a description of different tools used in the community building is provided followed by a description of the ongoing and planned actions organized by the identified categories of recipients and the tools used.

As detailed in D2.1, the approach of the project takes into consideration two categories of stakeholders:

- **Internal Stakeholders:** the different groups of project partners which are involved in the CoeGSS concept development (as representative members of GSS/HPC groups) and directly linked to project success and further exploitation. As the dissemination activities are running this group will be constantly extended with key partners.
- **External Stakeholders:** further groups of stakeholders who are not directly in charge of the project execution but somehow are interested in its results (eg. they are considering to join project exploitation and might also contribute towards the development or spreading of the CoeGSS concept/ portal). Some of the external stakeholders are:
  - Other European and Global projects such as other Centres of Excellence, projects related to HPC and/or GSS.
  - Communities and networks of HPC and GSS researchers, users, providers, etc.
  - Individuals like experts and researchers who can bring in their expertise.

End users (potential customers) are also considered part of the CoeGSS Community and are divided into two subgroups:

- **Commercial customers** (for profit users).
- **Academic institutions, government agencies, civil society organizations** (not-for-profit users).

Stakeholders are also categorised on the basis of the nature of their interest in participating in the CoeGSS community:

- Commercial

- Business/industrial sector including large companies and SMEs.
- Consulting concerning global challenges.
  
- Scientific
  - Scientific and research communities / networks.
  - EU funded projects, networks and initiatives related to e-Infrastructure, Centres of Excellence, Future Emerging Technologies, etc.
  
- Political
  - Policy makers in Governments and European Commission services (like commonwealth agencies, international organisations including the United Nations and the World Bank, crisis agencies).
  - Not-for-profits who require social research, training and policy advice.
  
- Social
  - Anyone interested in how new scientific approaches can support policy making, crisis management, global sustainability.

The Centre is open for collaborations and the planned outreach actions also support identification of new stakeholders of the Centre and validation of different models for participating in the CoeGSS Community and availing of its services. This Community Building work carried out by WP6 will also represent the input for the Business Model Validation work of WP2.



## 4 Community building Tools

As it has been described in the previous chapter, the different categories of stakeholders and potential end users are being addressed according to the Community Building strategy using specific tools.

The tools used to build and grow the CoeGSS community are detailed in the following paragraphs.

### 4.1 Project Web Site

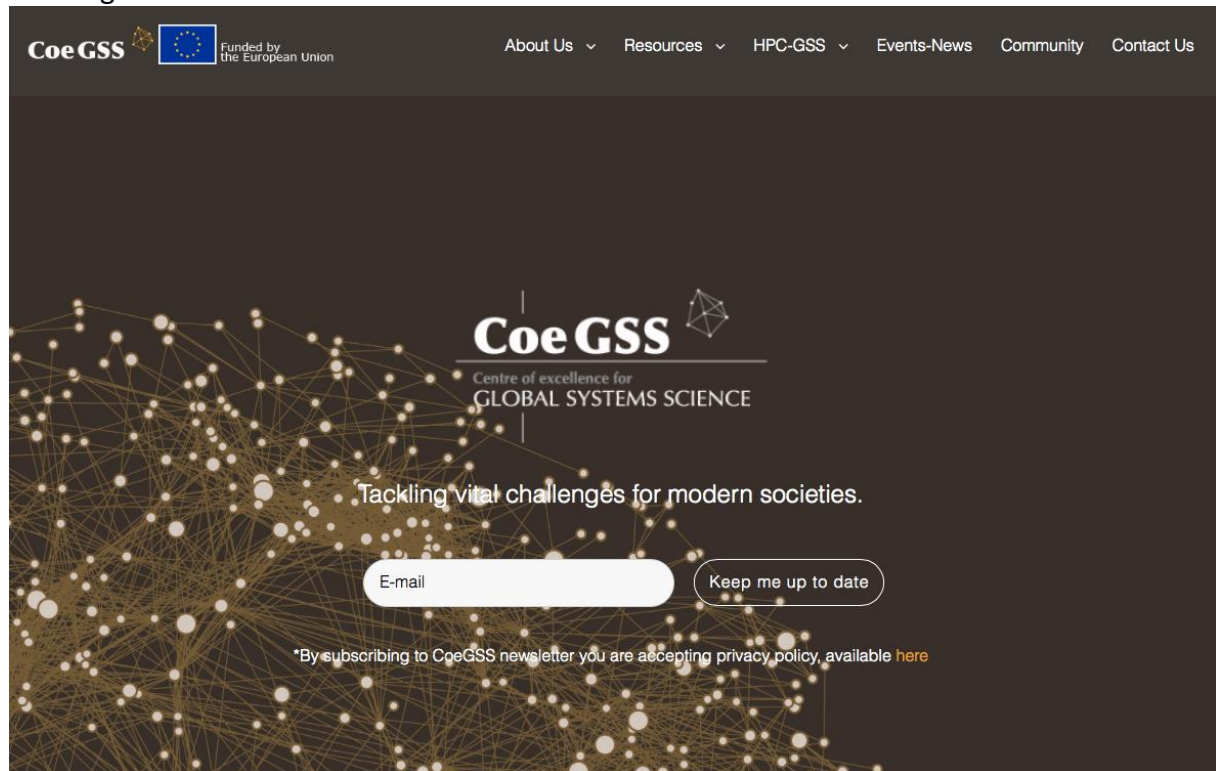
The Web site is an official tool to spread project information and news about CoeGSS facts and activities, while it is also used for other internal activities such as making the official copies of the deliverable available and keeping track of the initiatives CoeGSS is establishing a relationship with.

The Web site is available at the following URL: <http://coegss.eu>.

The Web site is implemented using the WordPress framework (<https://wordpress.com>). It has a private administrator back-end and a public front-end where content gets published for current and potential stakeholders of CoeGSS Community.

As it contains all information related to CoeGSS Project, it is the basic instrument used by other tools to engage the community around the Project itself. Information published on the website is constantly kept up to date with the Dissemination work of WP6 and the structure of the site is also reviewed and updated when new sections are deemed necessary (e.g. training section added to properly advertise the info about courses curated by WP6).

The Web site has the home page displayed in the enclosed figure (Fig.1) where different sections are available from the menu at the high level of the page.



**Figure 1 - screenshot of website front page**

The CoeGSS web site includes the possibility of subscribing to the CoeGSS newsletter (see also section 2.3) that is a tool for dissemination of the results but also used to keep the community around CoeGSS engaged.

Following figures (Fig.2, Fig.3, Fig.4, Fig.5, Fig.6 and Fig.7) show different sections of the web site in its latest version, as there was a continuous redefinition of content and pages organization according to the inputs of other WPs.

**About us** highlights The Mission of the Project, The Methods used in the Project and The Partners involved.

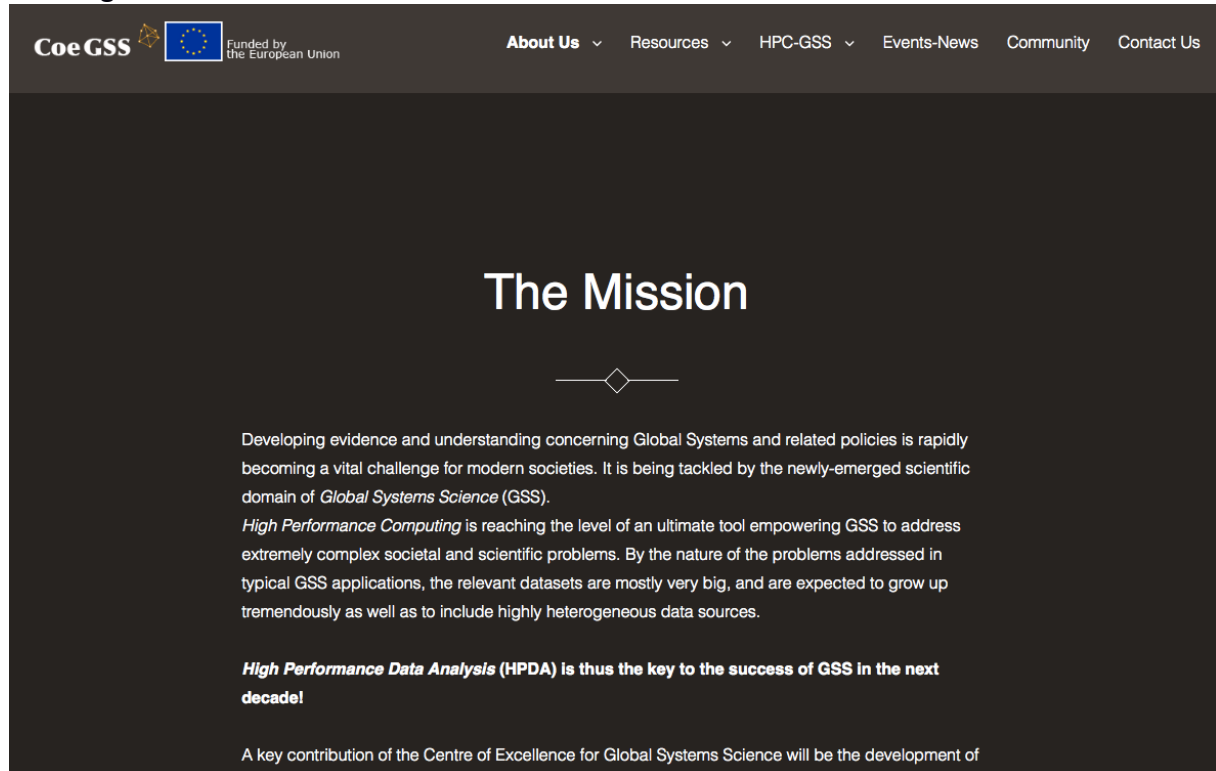


Figure 2 - screenshot of "Mission" page of website

The **Resources** section includes project [Deliverables](#), [Training Material](#) pointing to a curated and categorized list that includes schedules of relevant courses and online material, the [Media Kit](#) that can be downloaded (included CoeGSS logo under CC 4.0 license) and related [Publications](#) (see D6.5 for a complete list of publications).

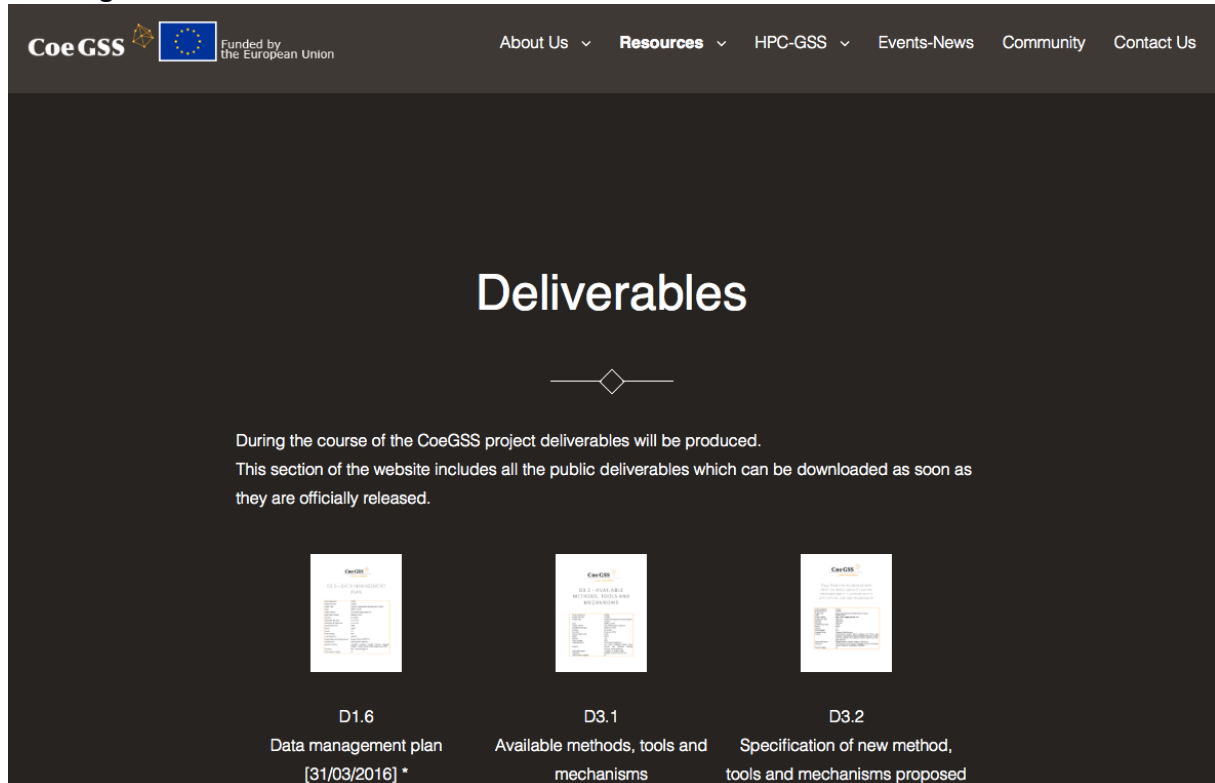


Figure 3 - screenshot of "Deliverables" page of website

The **HPC-GSS** section offers a brief description of the HPC world together with the GSS world that are linked in this CoE. The CoeGSS project is using HPC to address three different global challenges (Pilots). The section also includes a description of GSS projects and a description of HPC projects.

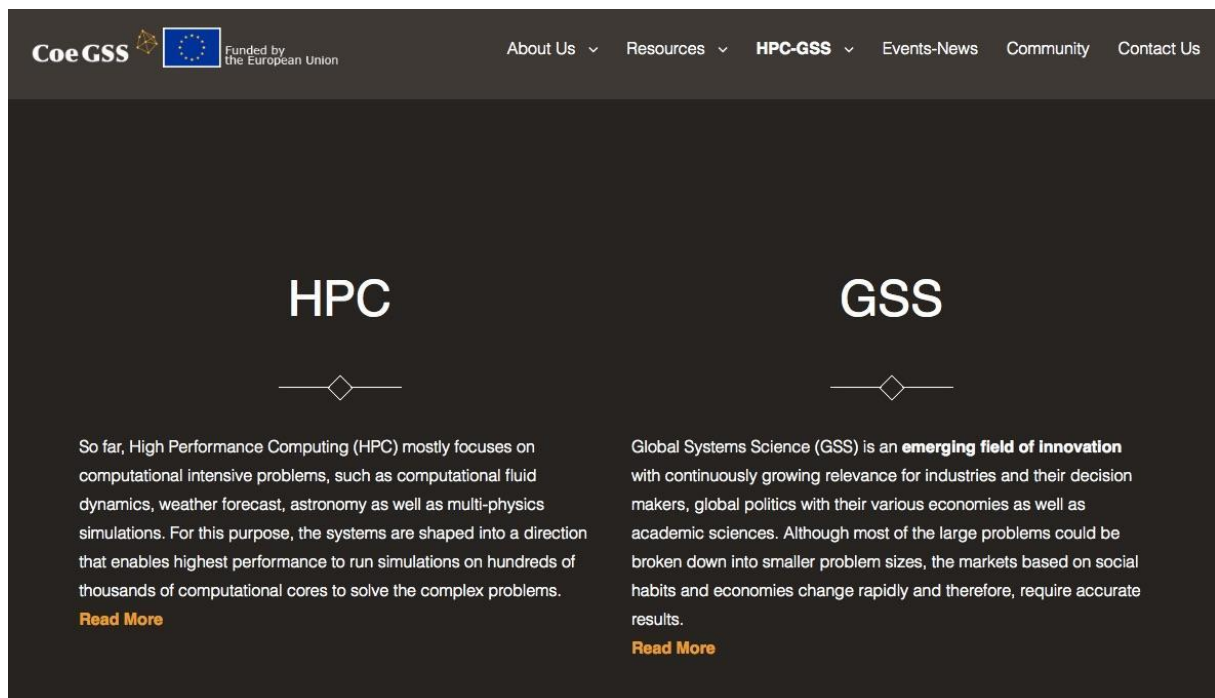
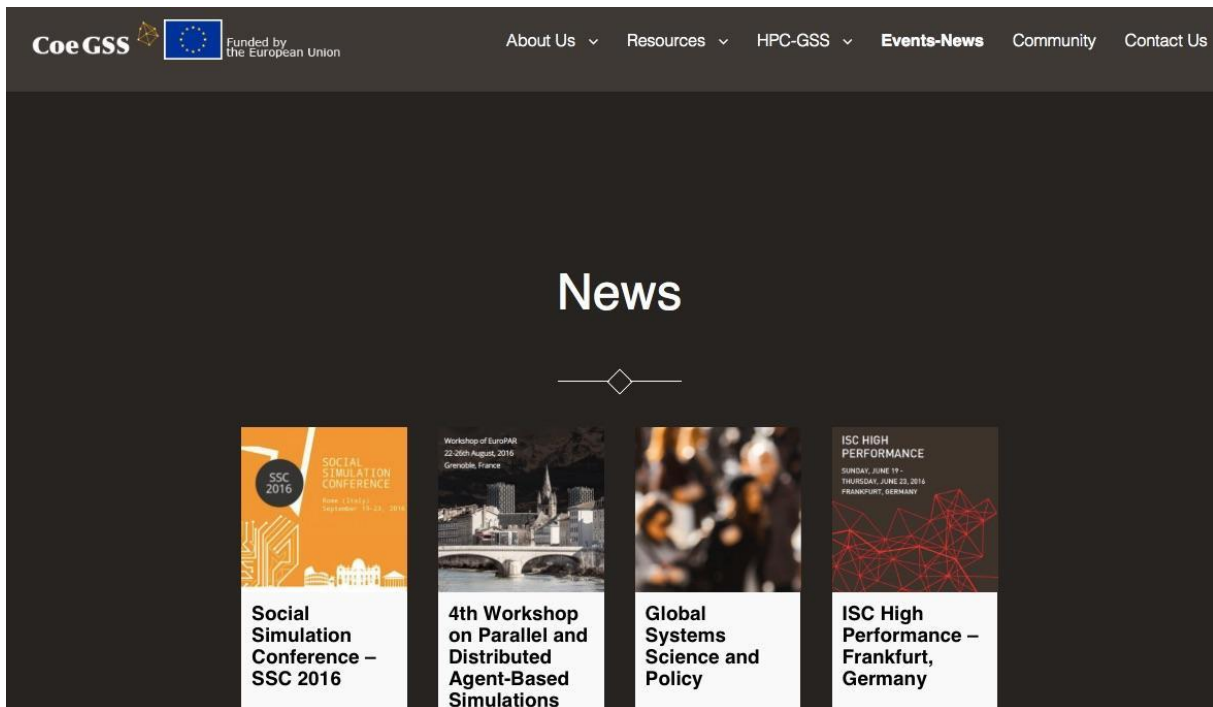


Figure 4 - screenshot of "HPC/GSS" page of website

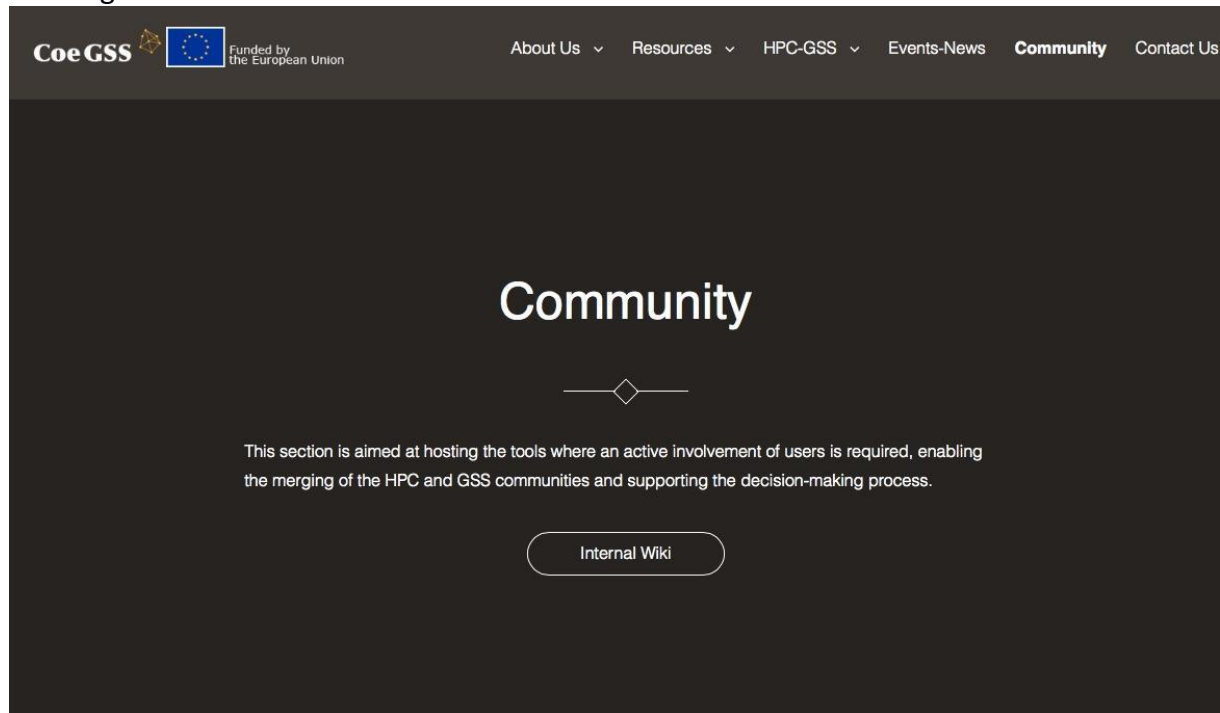
The **Events-News** section has been recently introduced in CoeGSS website (end of May 2016). Since then 5 news have been published online. Each news format contains a key picture of the news, a title with the principal message to be communicated, a short description, a link to provide more details and the day of publication.



**Figure 5 - screenshot of "News" page of website**

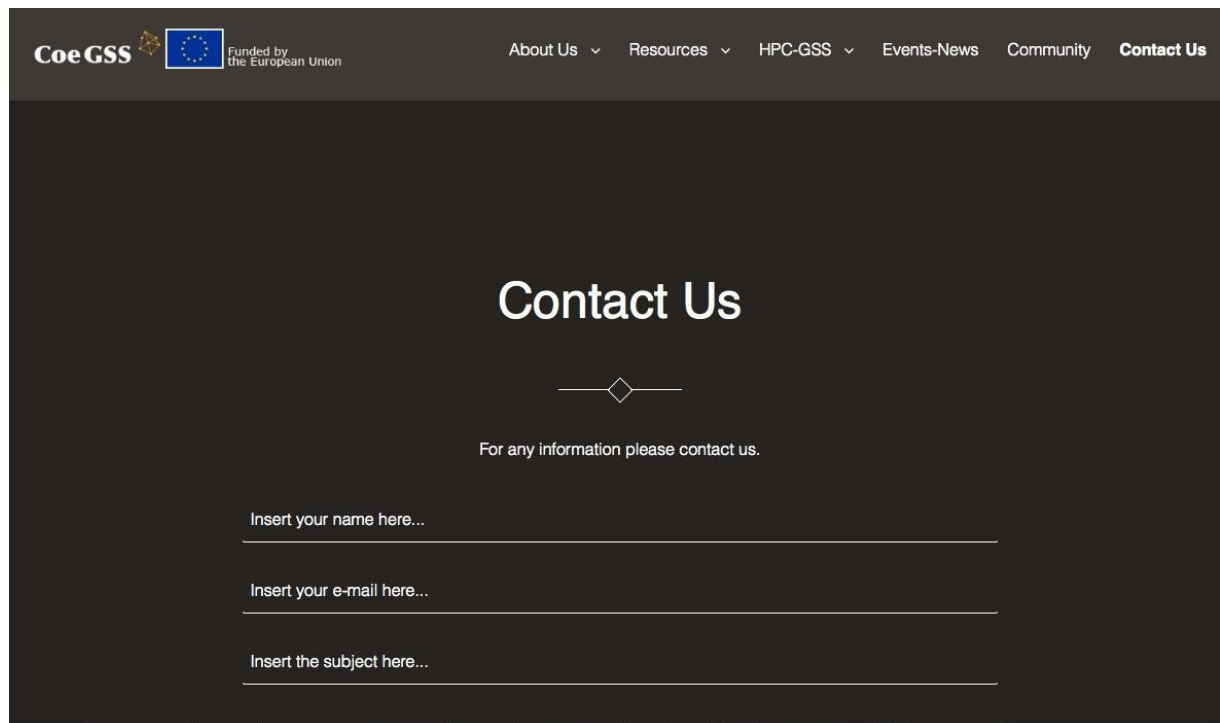
It also contains the Tweet Feed from the CoeGSS twitter account which is automatically updated showing the most recent posts.

The **Community** section aims at hosting the tools where an active involvement of users is required, enabling the merging of the HPC and GSS communities and supporting the decision-making process. At present it points to the access page of the Internal Wiki described in section 4.2.



**Figure 6 - screenshot of "Community" page of website**

The **Contact us** page has the classical form to request information via email. Messages submitted through this form are forwarded to the [coegss-info@lists.projects.hlrs.de](mailto:coegss-info@lists.projects.hlrs.de) email address to be brought to the attention of project participants.

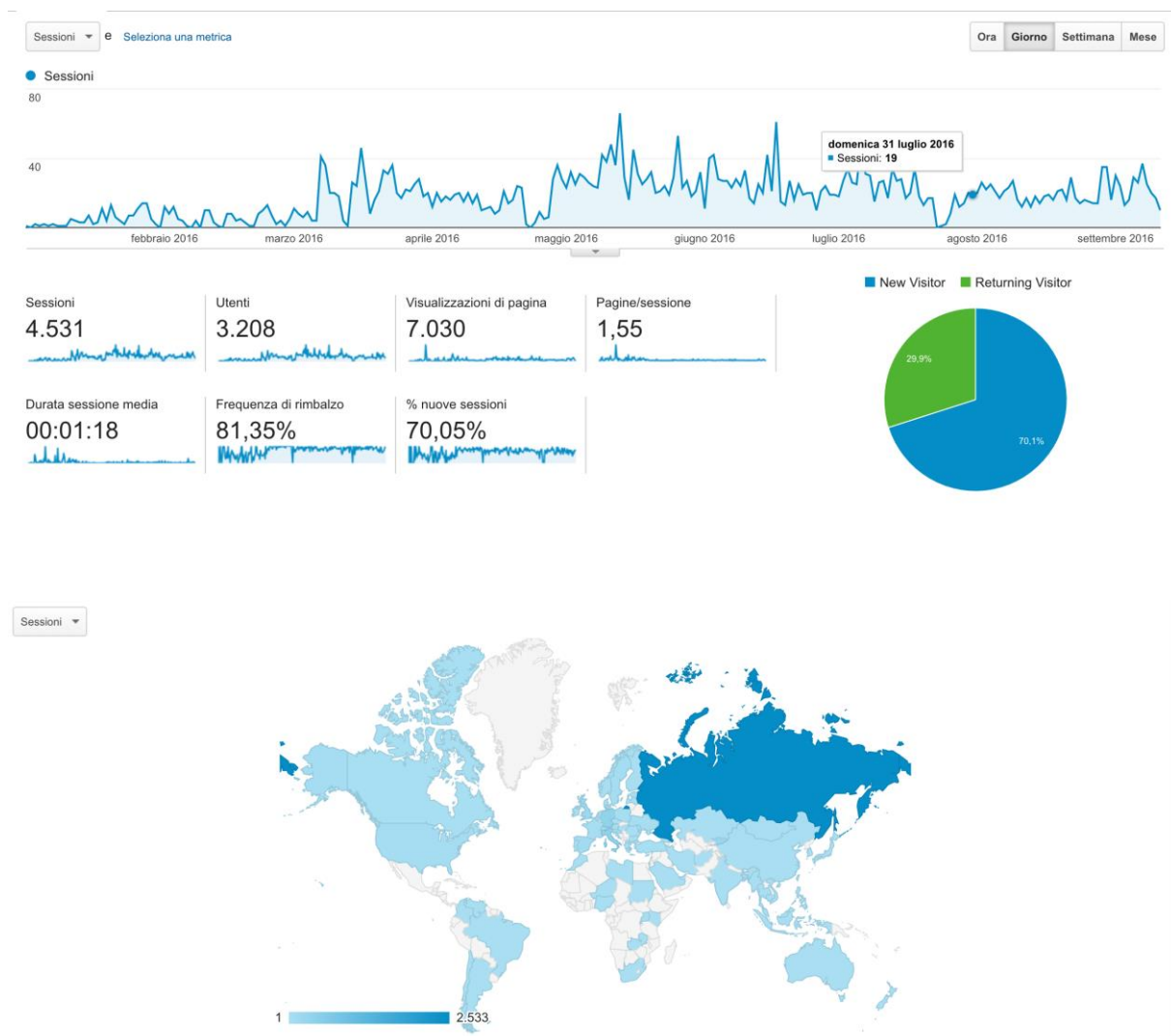


**Figure 7 - screenshot of "Contact us" page of website**

TOP-IX is monitoring the CoeGSS web site access with Google Analytics that provides general information about number of access to different Web pages but also more details like where (on Country basis) people watch CoeGSS web pages.

Visitor activity increased in the initial months of the project and stabilized in the second half of the first year of the project. This level of traffic is in line with the expectations for this phase of the project where no results are published yet and the community is being built.

Geographic distribution of the visitors shows a relevant share of visitors coming from Russia with a visit duration of few minutes that are likely to be mostly “bots” that stand out due to the geographic concentration and to the relatively low level of traffic we are experiencing at present.



**Figure 8 - visits of website**

Paese ?	Acquisizione			Comportamento			Conversioni		
	Sessioni ? ↓	% nuove sessioni ?	Nuovi utenti ?	Frequenza di rimbalzo ?	Pagine/sessione ?	Durata sessione media ?	Tasso di conversione all'obiettivo ?	Completamenti obiettivo ?	Valore obiettivo ?
	4.531 <small>% del totale: 100,00% (4.531)</small>	70,07% <small>Media per vista: 70,05% (0,03%)</small>	3.175 <small>% del totale: 100,03% (3.174)</small>	81,35% <small>Media per vista: 81,35% (0,00%)</small>	1,55 <small>Media per vista: 1,55 (0,00%)</small>	00:01:18 <small>Media per vista: 00:01:18 (0,00%)</small>	0,00% <small>Media per vista: 0,00% (0,00%)</small>	0 <small>% del totale: 0,00% (0)</small>	0,00 US\$ <small>% del totale: 0,00% (0,00 US\$)</small>
1.  Russia	2.533 (55,90%)	76,15%	1.929 (60,76%)	96,88%	1,04	00:00:25	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
2.  Italy	394 (8,70%)	28,93%	114 (3,59%)	37,56%	4,20	00:07:13	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
3.  Germany	355 (7,83%)	57,75%	205 (6,46%)	53,24%	2,01	00:01:54	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
4.  Kyrgyzstan	245 (5,41%)	67,76%	166 (5,23%)	96,33%	1,04	00:00:21	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
5.  United Kingdom	186 (4,11%)	83,87%	156 (4,91%)	69,89%	1,69	00:01:15	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
6.  Spain	107 (2,36%)	48,60%	52 (1,64%)	44,86%	2,03	00:02:23	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
7.  Sweden	76 (1,68%)	32,89%	25 (0,79%)	60,53%	1,80	00:00:44	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
8.  United States	59 (1,30%)	88,14%	52 (1,64%)	84,75%	1,44	00:00:41	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
9.  Ukraine	43 (0,95%)	83,72%	36 (1,13%)	69,77%	2,07	00:01:59	0,00%	0 (0,00%)	0,00 US\$ (0,00%)
10.  France	39 (0,86%)	71,79%	28 (0,88%)	41,03%	2,74	00:01:38	0,00%	0 (0,00%)	0,00 US\$ (0,00%)

Figure 9 - website visitors by country

## 4.2 Internal Project Wiki

A Wiki system based on the free DokuWiki software (<https://www.dokuwiki.org>) has been setup for sharing working documents and information between project members.

The system does not have any publicly-accessible section and each individual person involved in the project has a personal user account.

The Wiki page has been created initially to start working on the shared Knowledge Base which eventually will be made available to the public. It is now heavily used by project participants to work on shared documents in the sections for each WP, to maintain project-wide cross-WP documents (e.g. tracking dissemination activities) and to work on interdisciplinary initiatives (e.g. the visualization working group).

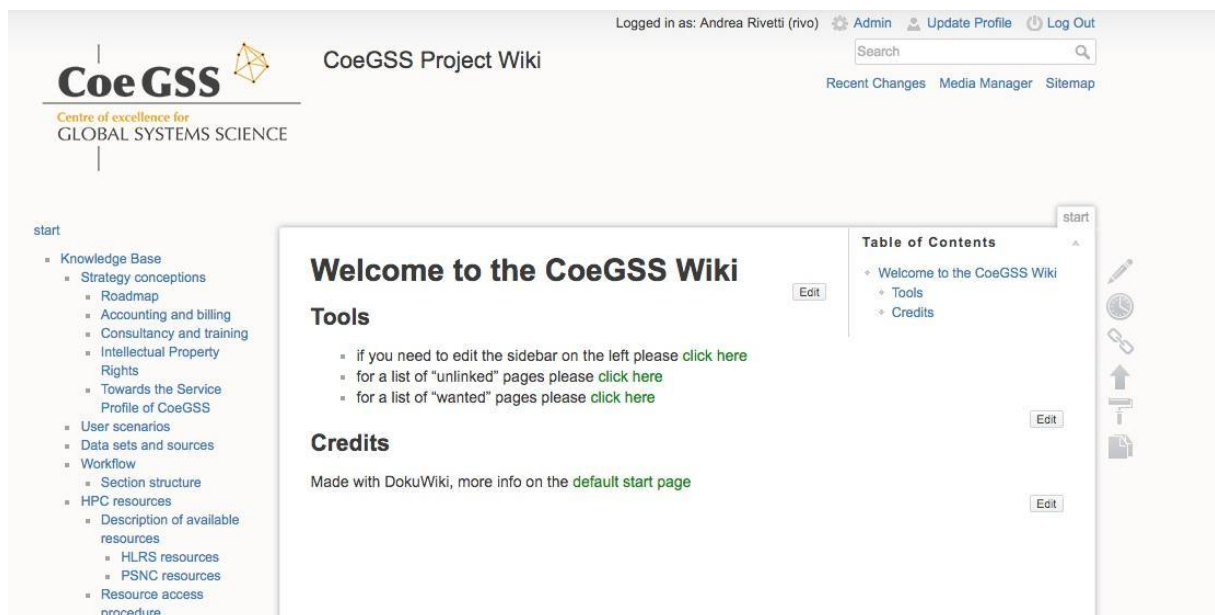


Figure 10 - screenshot of internal project wiki page



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The CoeGSS wiki page is reachable at the address <http://wiki.coegss.eu>

### 4.3 Twitter account

While the Web Site is the official tool, nowadays social networks are widely used to spread information about a topic and/or a community of interest, also because they fit well with mobile devices.

CoeGSS chose Twitter as social network platform to be used to share information towards its stakeholders through the project account @CoeGSS.

A measure of the validity of the community is related to number of tweets and followers. Certainly this is a typical chicken and egg dilemma but it is clear that more news “tweeted” bring more followers for the chain (“viral”) effect, typical of most social networks.

Part of the Dissemination work of WP6 is to keep the CoeGSS Twitter feed alive with posts relevant to both HPC and GSS. All project partners have been involved in creating content for the CoeGSS Twitter channel in order to successfully create a social media channel focused on both fields. CoeGSS also follows many relevant influencer (projects, initiatives, events, etc.) in order to get involved in a Social Media community around both HPC and GSS.

Below a screenshot is reported of @CoeGSS today as seen from a browser on a laptop.



**Figure 11 - screenshot of project Twitter webpage**

As said, the power of Twitter, as other social networks, is related to the application available for mobile devices (in different platforms) that allow people to read tweets everywhere they

have an Internet connection but also to tweet news or other information at any time, especially live during events (Conferences, Forums, etc.).

Following picture (Fig.12) shows @CoeGSS profile as seen on a mobile device.



**Figure 12 - screenshot of project Twitter mobile page**

Currently, @CoeGSS followers are 74, which are expected to reach at least the 200 indicated as target in the Project KPIs, given that during the next two years there will be a growing number of news to communicate, which should trigger a “viral” growth of followers. Also the Twitter channel of the project has been published on our dissemination material as a way to keep in touch with CoeGSS through social media.

Therefore, a significant increase of followers is expected in the following months with more information available on the project (deliverables included) and as a result of the actions listed in the chapter 3 (Planned actions) of this deliverable.

## 4.4 Newsletter

The Newsletter is another tool used to develop a dissemination plan and to foster the community building process.

The Newsletter serves as a periodic appointment to update users about project news, to increase community loyalty and to recommend GSS/HPC events and workshops. Deliverable D6.5 contains more details about the scope of the newsletter. We report here some technical aspects about the newsletter format.

**Building**

Based on established and approved contents (with the project partners), the email layout has been designed and sent using Mailchimp tool (<http://mailchimp.com>), an online email marketing solution to manage mailing lists, send emails and analyse results.

The contacts list, which receives CoeGSS emails, represents the main mailing list of newsletter subscribers, that is those who have decided, spontaneously or after personal invitation, to provide their emails to CoeGSS through the online form (in the official website homepage).

The first email sent, called “CoeGSS Newsletter #1”, was organised in 4 content sections:

1. An introduction to the mail (called “Message from the coordinator”).
2. In a nutshell, CoeGSS project (“About CoeGSS”) and GSS - HPC disciplines.
3. A focus on the project pilots.
4. An Events & workshops section.

In the head of email, there was the European Union logo (with the relative reference), the name and the number of the newsletter.

Lastly, in the Mailchimp disclaimer, there were useful links that allow the user to manage his/her own newsletter subscription.

CoeGSS Newsletter #1 was sent in the morning on July 18th, 2016 and had the look shown below.



Funded by the European Union

[#1 CoeGSS Newsletter](#)



### **News from CoeGSS**

The **Centre of Excellence for Global Systems Science** has been launched in October 2015. Read about what we do in the "message by the coordinator" and about how we do it explained from a Global Systems Science (GSS) and High Performance Computing (HPC) perspective. Find out who we are and find an example of what we will produce below.

### **Message from the coordinator:**

#### **CoeGSS - Our Motivation**

*Humankind is getting more and more entangled with global systems - the Internet, financial markets, fossil fuel use, public health are just a few examples. In the years and decades to come these systems will present **major challenges and opportunities for many actors**. To deal with the challenges or to identify and seize opportunities, one needs capabilities for **transdisciplinary work** that cannot be mastered without **very big datasets and algorithms** that require the power of high performance computing.*

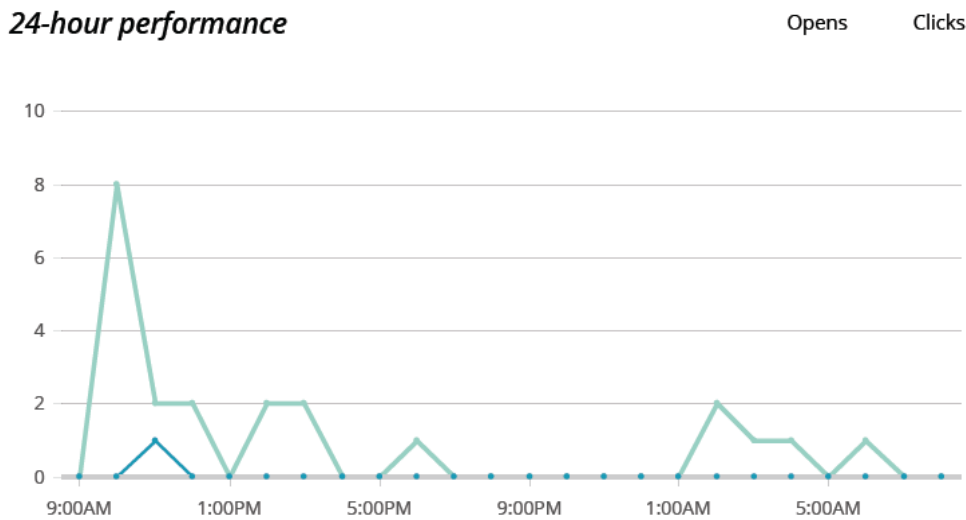
**Figure 13 - page from newsletter**

The email was sent to the list of newsletter subscribers (main mailing list = 75 emails) and to project representative contacts (Coegss-Up-To-Date list = 52 emails).

Email addresses collected through the online form on the website are processed according to the stated privacy policy. The CoeGSS Privacy Policy is published on the website and is reachable through a link on the front page.

Newsletter #1 track results, sent to Main Mailing list, are shown below:

Successful deliveries: **100%**                      **75 email sent**  
 Open rate: **34,7%**                              **26 Opened**                      **58 Total openings**  
 Last opened: **8/4/16 4:27 AM**



**Figure 14 - newsletter statistics**

Here the detailed data of Click Rate, the percentage and the number of the links click:

Click rate: **1,3%**                              Click per unique opening: **3,8%**

**3 Total Clicks**

The level of engagement of this first issue of the newsletter remains low with a 35% rate of newsletters that has been actually opened and 4% of newsletter readers actually clicking on one of the links pointing to full articles or information about events. This is in line with the expectations for this phase of the project where actual results have not been published and disseminated yet.

URL	Total	Unique
<a href="https://www.futurelearn.com/courses/global-sys...">https://www.futurelearn.com/courses/global-sys...</a>	1 (33%)	1 (33%)
<a href="http://www.padabs.org/">http://www.padabs.org/</a>	1 (33%)	1 (33%)
<a href="http://coegss.eu/hpc-gss/#gss-opened">http://coegss.eu/hpc-gss/#gss-opened</a>	1 (33%)	1 (33%)
<a href="http://coegss.eu/about-us/#thepartners">http://coegss.eu/about-us/#thepartners</a>	0 (0%)	0 (0%)
<a href="http://coegss.eu/">http://coegss.eu/</a>	0 (0%)	0 (0%)
<a href="http://coegss.eu/hpc-gss/#hpc-opened">http://coegss.eu/hpc-gss/#hpc-opened</a>	0 (0%)	0 (0%)

**Figure 15 - newsletter click statistics**

## 4.5 Feedback forms

A feedback form has been developed by WP2 in order to get a direct feedback on what partners expect the Centre of Excellence to offer and how services/resources and know-how should be offered.

This first “CoeGSS Partner Engagement Questionnaire” is meant to get feedback from internal stakeholders. More questionnaires are planned for general distribution among external stakeholders in order to evaluate their interest in the offering of the Centre.

## 4.6 Partner Events

An initiative presented and agreed during the project General Meeting in Poznan was talking about CoeGSS and its main features of HPC and GSS at specific partner events. So while each partner is organizing an event (conference, workshop, forum, etc) he/she can introduce an informal related event (meet-up) style aiming at:

- ENGAGING people on the GSS and HPC themes.
- DISSEMINATING CoeGSS goals and pillars.
- CREATING bottom-up a real community.

Final scope of such initiative is helping to create the real community from informal events that is common in the start-up world. One possible approach for the future development of CoeGSS could come from the “lean approach”, where the engaged stakeholder community of first users helps to develop the product/service by providing strong and effective feedbacks.

First hypothesis is about working on format of a specific CoeGSS event that could be replied in different events hosted by each Consortium member, with the goal of about 8 episodes (of

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maximum 120 minutes) each year involving 40-60 people very time. Episodes have in common the main agenda with:

- CoeGSS goals and pillars presentation.
- 1-2 case studies and Q&A with domain experts.
- On site survey (CoeGSS business model validation) .
- Free networking.

Other features that each episode should include are:

- Online registration platform.
- Common graphic layout.

Furthermore, each episode might add:

- Specialized training activities.
- Extended time duration.

After the discussion in the General Meeting, where the format was agreed by all partners, budget constraints on community building emerged. It became clear that a program of 8 dedicated events, while very appealing, is not financially feasible. Therefore, in order to find an efficient trade-off between the community building goals and the available resources, it has been agreed that the event format could be applied during events (e.g. conferences, exhibitions, internal workshops, etc.) that the different partners have already planned to participate in, so that no additional ad-hoc resources will be required and the different partners' networks will be naturally leveraged and engaged with the aim to achieve a multiplication effect. The next chapter contains an example of community building events that leverage the partners' networks.

### 4.6.1 CoeGSS presentation during TOP-IX BIG DIVE course

One first episode of these series of CoeGSS community-building events was organized in Torino, during the fifth edition of the TOP-IX training program BIG DIVE. BIG DIVE (<http://www.bigdive.eu>) is a 5-week training initiative aimed at teaching and boosting the technical skills needed to “dive” into the Big Data universe, to extract value and to create impact. Particularly, BIG DIVE is characterized by a cross-disciplinary program where the main tracks are related to Data Visualization, Data-driven Development and of course Data Science.

In 2016, the BIG DIVE class was composed by 22 students from 5 different countries (Germany, Italy, Switzerland, Poland, USA), each of them with a very different background (PhD students, PostDoctoral, research centres, private companies, freelance world, ...). This mix of knowledge, experiences and stories is definitely one of the main assets of the course promoted by TOP-IX together with its main partners: Isi Foundation (also partner in CoeGSS), Axant (a local coding agency) and TODO (an interaction design studio).



**Figure 16 - photo from Big Dive CoeGSS presentation**

The event consisted of a brief introduction by Dott. Leonardo Camiciotti (Dev. Program Manager in TOP-IX) followed by a remote presentation by Dr. Bastian Koller (Manager at HLRS - High Performance Computing Center Stuttgart) using a Skype connection. Particularly, Bastian Koller explained the origin of the project, the pillars of the Centre of Excellence and the main goals of the initiative funded by the European Community. The photo above (Fig.16) shows Leonardo Camiciotti introducing the remote talk by Dr. Koller.

The computing resources availability and the scientific approach (today made available to a wider audience) are two of the enabling factors in the BIG DATA trend explosion, so the class showed a deep interest in the project explanation.

After the speech session and in the following days some of the students asked to TOP-IX more information about the project: most of the questions are related to the tools used for simulating the project use-cases and the scientific approach in general.

The BIG DIVE Alumni community counts now more than 90 members. This might be a valuable “sounding board” for some of the choices made during the project about the scientific side but also from the perspective of a potential private “user” of the Centre of Excellence future “services”.

The structure used in this event (a local introduction by one of the partner and some remote contribution from other experts) could be an easy-to-replicate (cheap but effective) formula.



## 5 Community Building Actions

The process of creating a community around CoeGSS started with the kickoff event of the project with the aim of progressively engaging the different stakeholder and end user categories described in the previous chapter.

Therefore, the community building effort started with a focus on the project participants (internal stakeholders) in order to create a team of GSS and HPC experts who could work together in an effective manner and is progressively widening the scope of its actions towards the outside of the project community.

This section details the actions currently in progress organized by the target audience and by the tool used as defined in the “Definition of the CoeGSS Community” and “Community building Tools” sections respectively.

### 5.1 Actions toward internal stakeholders

The internal stakeholders have been naturally addressed as the first interested, involved and committed group, through the development of a set of dedicated actions, which are briefly described here below:

- Project Website
  - The website is the authoritative source of information about project participants and their role in CoeGSS. A first version of the website has been published shortly after the project kickoff in order to establish immediately a web presence. This step involved all participants in evaluating proposals for graphic appearance, structure and content and required all the participants involved to start working as a team.
- Internal Project Wiki
  - The CoeGSS participants expressed the need for a flexible way to share working documents and internal information where multiple users need to collaborate at the same time. The project wiki has been put in service and at present it contains pages visible to project participants only.
- Newsletter
  - The process of managing subscriptions, collecting news from participants, writing the articles and publishing the newsletter is now running and is being used to advertise the project events and milestones both internally and externally.
- Internal evaluation poll for member organizations
  - A first survey has been completed among project participants in order to evaluate how the current evolution of the project matches the expectations

in terms of impact of the project on the field in which each member organization is operating. This tool for collecting feedback is being refined to be used in the future to get feedback from external stakeholders and potential customers.

## 5.2 Actions toward external stakeholders

The second “level” of the community building process moves towards the larger group of the external stakeholders, which have been addressed through the following actions:

- Project Website
  - The Website represents the authoritative source of information about the project’s objectives and its status. Visitors can access a repository of official project documents documenting its progress and more informal posts about the project activities.
  - The Website contains a growing collection of material regarding the GSS and HPC disciplines. Material presented include research papers, information about training courses and links to other projects and initiatives in the GSS and HPC areas.
  - A directory of HPC and GSS initiatives is being constantly expanded identifying the initiatives of interest in the field as part of the market watch analysis carried out in Work Package 2. Organizations promoting other initiatives relevant for the work of CoeGSS are contacted to establish a cross-link between websites and to explore possible future synergies.
- Newsletter
  - The newsletter is being promoted towards potential stakeholders to advertise the progress of the project. Each partner informed its internal and external communities about CoeGSS newsletter and provided them with a link to sign up.
- Curated Twitter feed
  - The CoeGSS twitter feed is being used to advertise events, articles and project activities and as well to interact with other Twitter users and communities using hashtags and mentions in their posts.
- Presence at relevant GSS and HPC conferences and events (more information in deliverable D6.5):
  - CoeGSS participated directly with a booth at ISC High Performance Computing event in Frankfurt <http://isc-hpc.com/>.

- Project participants attending HPC and GSS events are also being active in presenting CoeGSS at conference sessions and collecting contacts for the project mailing list.
- Specific side events focused on CoeGSS (partner events) have been organized by individual project participants during larger conferences. More of such events are planned for the coming months.

### 5.3 Actions toward potential end users

In this phase of the project, the form of the services offered by the Centre of Excellence to potential end users is not finalised yet.

However, based on the work carried out by WP2 and described in the deliverable D2.1 a clear picture of the market for services in the GSS and HPC areas is being defined, which will allow the project to define the services offered and the business models to be validated and adopted. This work will also identify a list of potential end users to which the Centre's services can be advertised in order to evaluate the models that better match the expectations of users in this field. Indeed, this validation process will be key in order to guarantee the sustainability of the Centre, and to this extent the progressive building of an engaged community is the necessary concurrent activity to be carried out starting from month 12 of the project itself.

## 6 Future development

After 1 year of project life, it is the right time to sum up about the community around CoeGSS and develop the right actions to meet the expected KPIs. In the following paragraphs a situation of current CoeGSS stakeholders is depicted highlighting strengths and weaknesses and, from this starting point, the selected actions, discussed with all WP6 partners and shared with WP2, are described.

### 6.1 CoeGSS community at 1st year

At present (1st year of the Project) the CoeGSS community has following figures (KPIs), as depicted in previous paragraphs:

- 74 Twitter followers
- 75 newsletter subscribers (in addition to 52 that are within CoeGSS Partners)

Related to stakeholder engagement we can also mention 4.351 sessions (i.e. accesses) to CoeGSS website.

Beyond these figures we can state that Internal Stakeholders are very well engaged with the use of Web site, Wiki and newsletter.

External Stakeholders and Potential Users (of CoeGSS future services) require more actions in order to increase numbers that will be useful to get feedback and to validate the Business Models proposed in WP2 and described in the D2.1 deliverable.

Of course, this situation is common in every project started from one year only because (trivial but essential) the internal community needs to be developed and enforced before going with external players. Externally, the project does not have yet sufficient technical and scientific results to be disseminated, and approaching a wide external community from the outset could raise unrealistic expectations.

The clear and detailed analysis of relevant stakeholders from WP2 provides the appropriate basis to increase the contact with external stakeholders and potential end users.

### 6.2 Planned Actions

Community building (e.g. increasing number of stakeholders around the project) is related with other project activities like Dissemination (T6.5) and Development of the CoeGSS Business Models and Sustainability (WP2), therefore allowing some “economies of scale”:

- Dissemination of Project Activities and results connects new people and entities to the project, i.e. helps in establishing contact with new stakeholders.
- Activities aimed at development of the CoeGSS business models and Sustainability activities require a large community to have continuous feedback

and input about projected business models and their sustainability, which also helps in establishing contacts with potential stakeholders.

The following paragraphs set out planned, low-budget actions for community building initiatives during the second year of activity of the project.

### 6.2.1 Increasing dissemination through social media

Credentials for the CoeGSS Twitter account (which represents the main social media channel the project is using) will be shared among project participants along with basic guidelines about which content to share and how to present it.

This will make the CoeGSS Twitter feed more interesting to all the categories of audience the project is working to engage and will add more dynamic content to the project pages where the Twitter feed is published (website, portal).

To improve our presence in social media, the consortium Partner ATOS participated in EU webinar called “Social media training webinar” organized by Jakub Kajtman from DG Connect in September 2016 to streamline the consortium efforts in social media campaigns and community building. Following the outcome of this training session some good practices will be shared among the partners to make CoeGSS presence in social media more visible.

### 6.2.2 Extending the network of external stakeholders

The work of WP2 included identifying entities active in the GSS and HPC fields that could become external stakeholders of the Centre of Excellence.

Four areas have been identified:

<b>PRIVATE SECTOR (BUSINESS)</b>	<ul style="list-style-type: none"> <li>• Large corporations</li> <li>• Managers, CEOs, Presidents of global companies</li> <li>• Industry SMEs, SME organizations / federations, start ups</li> <li>• Large interdisciplinary projects</li> <li>• Consulting companies and independent consultants, analysts, experts</li> <li>• Media: Business Journals and trade press</li> <li>• Private R&amp;D Centres</li> <li>• Spin-offs from Universities</li> <li>• Information and communications systems developers</li> </ul>
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Building

	<ul style="list-style-type: none"> <li>• Business Associations</li> <li>• Insurance providers &amp; finance enterprises &amp; private banks</li> </ul>
<b>PUBLIC SECTOR (POLICY)</b>	<ul style="list-style-type: none"> <li>• European Commission services</li> <li>• Policy makers / Decision Makers</li> <li>• Public authorities, city councils</li> <li>• Governments and government agencies</li> <li>• Members of local, national and international charities</li> <li>• International Financial Institutions and Central banks</li> <li>• International organizations</li> <li>• Emergency &amp; Crisis National Agencies</li> <li>• Advisory / Scientific committees</li> <li>• National and local government civil servants and politicians</li> <li>• Not-for-profit organizations</li> <li>• Associations/ unions/ chambers</li> </ul>
<b>CIVIL SOCIETY</b>	<ul style="list-style-type: none"> <li>• Mass (social) media</li> <li>• Public opinion</li> <li>• Anyone interested</li> <li>• Citizen Initiatives</li> <li>• Third sector organizations: CSOs, NGOs, labor unions, informal networks of citizens</li> </ul>
<b>ACADEMIC SECTOR (EDUCATION &amp; SCIENCE)</b>	<ul style="list-style-type: none"> <li>• Universities &amp; Research Organisations</li> <li>• Researchers, scientists,</li> <li>• Other R&amp;D&amp;I projects</li> <li>• Students (via online platforms)</li> </ul>

**Table 1 - categories of external stakeholders**

**Building**

A list of entities to get in touch with has been provided by WP2 including HPC programmes, Global Systems Science projects, H2020 HPC Projects, European Research Infrastructure initiatives regarding HPC in societal challenges, projects related to Cloud, Big Data and ICT.

**HPC programmes:**

- PRACE - Partnership for Advanced Computing in Europe ([prace-ri.eu](http://prace-ri.eu))
- The European Technology Platform (ETP) in the area of High-Performance Computing (HPC) ([etp4hpc.eu](http://etp4hpc.eu))
- High Performance Computing Contractual Public-Private Partnership (HPC cPPP) ([www.ec.europa.eu/digital-single-market/en/high-performance-computing-contractual-public-private-partnership-hpc-cppp](http://www.ec.europa.eu/digital-single-market/en/high-performance-computing-contractual-public-private-partnership-hpc-cppp))
- The ECSEL Joint Undertaking ([ecsel-ju.eu](http://ecsel-ju.eu))

**Global Systems Science projects:**

- CIMPLEX - Bringing Citizens, Models and Data together in Participatory, Interactive Social EXploratories ([cimplex-project.eu](http://cimplex-project.eu))
- CONSENSUS - Multi-Objective Decision Making Tools through Citizen Engagement ([consensus-project.eu](http://consensus-project.eu))
- CRISIS - Complexity Research Initiative for Systemic Instabilities ([crisis-economics.eu](http://crisis-economics.eu))
- Emergence By Design (MD) ([emergencebydesign.org](http://emergencebydesign.org))
- EUNOIA - Evolutive User-centric Networks for Intraurban Accessibility ([eunoia-project.eu](http://eunoia-project.eu))
- EU Community ([www.project.eucommunity.eu](http://www.project.eucommunity.eu))
- EveryAware ([everyaware.eu](http://everyaware.eu))
- Forecasting Financial Crisis ([focproject.eu](http://focproject.eu))
- GLODERS ([gloders.eu](http://gloders.eu))
- GRACeFUL - Global systems Rapid Assessment tools through Constraint FUunctional Languages ([graceful-project.eu](http://graceful-project.eu))
- G.R.O.W.T.H.C.O.M - Growth and Innovation Policy-modelling: applying next generation tools, data and economic complexity ideas ([growthcom.eu](http://growthcom.eu))
- INSIGHT - Innovative Policy Modelling and Governance Tools for Sustainable Post-Crisis Urban Development ([insight-fp7.eu](http://insight-fp7.eu))

Building

- NESS stands for Non-Equilibrium Social Science ([nessnet.eu](http://nessnet.eu))
- Policy Compass ([policycompass.eu/app](http://policycompass.eu/app))
- SENSE4US ([sense4us.eu](http://sense4us.eu))
- Simpol ([simpolproject.eu](http://simpolproject.eu))
- SYMPHONY ([projectsymphony.eu](http://projectsymphony.eu))
- DOLFINS ([dolphinsproject.eu](http://dolphinsproject.eu))
- IBSEN ([ibsen-h2020.eu](http://ibsen-h2020.eu))
- FuturICT ([futurict.inn.ac](http://futurict.inn.ac))
- Action for the Science of Complex Systems and Socially Intelligent ICT (ASSYST) ([assystcomplexity.eu](http://assystcomplexity.eu))
- COMPLEXITY-NET (European network of funding agencies - coordination of national complexity research and training activities) ([complexitynet.eu](http://complexitynet.eu))
- The Earth System Governance Project ([earthsystemgovernance.org](http://earthsystemgovernance.org))
- The EURACE Project
- GLOBIS
- GSDP ([globalsystemdynamics.eu](http://globalsystemdynamics.eu))
- INSITE ([insiteproject.org](http://insiteproject.org))
- Responses to Environmental & Societal Challenges for our Unstable Earth (RESCUE) ([esf.org](http://esf.org))

H2020 HPC Projects:

- EXTRA - Exploiting eXascale Technology with Reconfigurable Architectures ([extrahpc.eu](http://extrahpc.eu))
- Mont-Blanc 3 ([montblanc-project.eu/montblanc-3](http://montblanc-project.eu/montblanc-3))
- ExaNoDe - European Exascale Processor Memory Node Design ([exanode.eu](http://exanode.eu))
- ECOSCALE - Energy-efficient Heterogeneous COmputing at exaSCALE ([ecoscale.eu](http://ecoscale.eu))
- ExaNeSt - European Exascale System Interconnect and Storage ([exanest.eu](http://exanest.eu))
- NEXTGenIO - Next Generation I/O for Exascale ([nextgenio.eu](http://nextgenio.eu))
- SAGE - Percipient Storage for Exascale Data Centric Computing ([sagestorage.eu](http://sagestorage.eu))
- ExaHyPE - An Exascale Hyperbolic PDE Engine ([exahype.eu](http://exahype.eu))



## Building

- NLAFFET - Parallel Numerical Linear Algebra for Future Extreme-Scale Systems (nlafet.eu)
- ExCAPE - Exascale Compound Activity Prediction Engine (excape-h2020.eu)
- ExaFLOW - Enabling Exascale Fluid Dynamics Simulations (exaflow-project.eu)
- ComPat - Computing Patterns for High Performance Multiscale Computing (compat-project.eu)
- READEX - Runtime Exploitation of Application Dynamism for Energy-efficient eXascale computing (readex.eu)
- ALLScale - An Exascale Programming, Multi-objective Optimisation and Resilience Management Environment Based on Nested Recursive Parallelism (allscale.eu)
- ESCAE - Energy-efficient SCalable Algorithms for weather Prediction at Exascale (hpc-escape.eu)
- INTERTWINE - Programming Model INTERoperability ToWards Exascale (intertwine-project.eu)
- ANTAREX - AutoTuning and Adaptivity appRoach for Energy efficient eXascale HPC systems (antarex-project.eu)
- MANGO: exploring Manycore Architectures for Next-GeneratiOn HPC systems (mango-project.eu)
- Green Flash - energy efficient high performance computing for real-time science
- EuroLab-4-HPC (eurolab4hpc.cms.chalmers.se)

## European Research Infrastructure initiatives regarding HPC in societal challenges:

- EoCoE - Energy oriented Centre of Excellence for computer applications (eocoe.eu)
- BioExcel - Centre of Excellence for Biomolecular Research (bioexcel.eu)
- NoMaD - The Novel Materials Discovery Laboratory (nomad-coe.eu, nomad-repository.eu)
- MaX - Materials design at the eXascale (max-centre.eu)
- ESIWACE - Excellence in Simulation of Weather and Climate in Europe (esiwace.eu, is.enes.org, verc.enes.org)
- E-CAM - An e-infrastructure for software, training and consultancy in simulation and modelling (e-cam2020.eu)
- POP - Performance Optimisation and Productivity (pop-coe.eu)
- SESAME-NET (esamenet.eu)

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- EXDCI (exdci.eu)

Projects related to Cloud, Big Data and ICT:

- HelixNebula - Europe's Leading Public-Private Partnership for Cloud (helix-nebula.eu)
- SERISS Synergies for Europe's Research Infrastructures in the Social Sciences (seriss.eu)
- FORTISSIMO (fortissimo-project.eu)
- SoBigData (sobigdata.eu)
- The EGI Federated Cloud (egi.eu/infrastructure/cloud)
- RDA: Research Data Alliance (rd-alliance.org/node)

Entities such as the ones listed in this section are going to be actively engaged in order to establish cross-linking of the websites (which has already been done for some of the projects in HPC and GSS as reported in Fig.16 and Fig.17) and to invite them to provide feedback in order to evaluate their interest in partnering with CoeGSS with their expertise and resources.



**Figure 17 - screenshot of "GSS Projects" page of website**



**Figure 18 - screenshot of "HPC Projects" page of website**

### 6.2.3 Engaging potential end users

The collection of feedback from external stakeholders will allow CoeGSS to investigate which of the services the Centre of Excellence is planning to provide are of most interest to the target audience and which models to sustain the business fit best the expectations of the potential end users.

The work of other Work Packages will come together providing elements including:

- Actual use cases where the CoeGSS value is demonstrated.
- Functional service portal to interact with users and present the available services and resources.
- Study of the business models that can allow the Centre to support its activities.

A specific questionnaire aimed at potential customers will be used to validate the proposed services against the actual interest from the identified audience.

## 7 Conclusions

The document provides the description of Community Building in CoeGSS in first 12 months of project, starting from the pillars of the strategy and a classification of stakeholders.

After a description of tools used it shows the actions done in first year of the Project and, wrapping up the actual stage, it presents the ideas and actions to increase the Community around CoeGSS in the next two years.

Different tools have been developed in order to engage internal and external stakeholders and possible end users. The related actions will be increased according to the progressive development of the CoeGSS project and within the limits imposed by the allocated budget. The community building process will be carried out by following the stakeholder map developed in WP2, in order to test and validate alternative business models, which should make the CoE sustainable after the duration of the project.

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# 9 List of tables

Table 1 categories of external stakeholders

## 10 List of abbreviations

CoeGSS	Centre of Excellence for Global Systems Science
CSO	Civil Society Organization
GSS	Global Systems Science
HPC	High Performance Computing
KPI	Key Performance Indicator
NGO	Non Governmental Organization
R&D	Research and Development
R&D&I	Research, Development and Innovation
SME	Small and Medium Enterprises
WP	Work Package

# 11 References

D6.1 - CoeGSS Website and brand

D2.1 - Stakeholder context and initial sustainability model

D6.5 - First Annual Report on Training, Standardization, Collaboration, Dissemination and Communication