



D7.1 Dissemination Plan Version 1.0

Document Information

Contract Number	689772
Project Website	www.hpc4e.eu
Contractual Deadline	29, February 2016
Dissemination Level	PU
Nature	R
Author	Núria Masdéu (BSC), Monica De Mier (BSC),
Contributor(s)	Renata Giménez (BSC), Fernando Cucchiatti (BSC)
Reviewer	Fernando Rochinha (COPPE), Alvaro Coutinho (COPPE)
Keywords	dissemination, exploitation, website



Notices:

The research leading to these results has received funding from the European Union's Horizon 2020 Programme (2014-2020) and from Brazilian Ministry of Science, Technology and Innovation through Rede Nacional de Pesquisa (RNP) under the HPC4E project, grant agreement No

"689772".

© 2016 HPC4E Consortium Partners. All rights reserved.

Change Log

Version	Author	Description of Change
V0.1	Núria Masdeu, Monica De Mier, Renata Giménez and Fernando Cucchiatti (BSC)	Initial Draft
V0.2	Alvaro Coutinho (COPPE)	Review and text changes
V.03	Fernando Rochinha (COPPE)	Review and text changes
v.04	Núria Masdeu (BSC)	Improvements based on the suggestions of the initial review
v.1.0	José María Cela and Marta Rossello (BSC)	Version to submit to the European Commission

Table of Contents

1. Executive Summary	4
2. Introduction	4
3. General objectives.....	4
4. Corporate image.....	7
5. External dissemination tools	9
6. Press strategy	12
7. Collaboration with other energy Brazil-EU related initiatives and projects.....	13
8. Results analysis	14
9. Exploitation.....	15

1. Executive Summary

This document defines the dissemination objectives for the HPC4E project, as well as the different targets for all its activities, the dissemination tools, the interaction with similar projects, its activities to be done during the project, and the policy used to disseminate the results.

The aim of this document is to define the strategy for disseminating the project results taking into account the big social impact that this project will have on society. This plan intends to communicate the benefits of HPC4E's research to the target groups such as research institutions, industry stakeholders, policy makers and the wider public. The strong presence of leading research HPC institutions –both European and Brazilian- ensures the wider dissemination potential through scientific channels, and the industrial partners will focus more on the exploitation and technology transfer activities.

2. Introduction

The main purpose of the Dissemination and Exploitation work package (WP7) is to maximise the visibility and impact of the project and to support the partners and scientists involved for dissemination purposes, as well as to collaborate with related EU and Brazil projects that might benefit from this project's results. This document presents the dissemination tools, communication activities and press strategy for the HPC4E project.

3. General objectives

The main objectives for dissemination of the HPC4E project are:

- To raise awareness about the project and to disseminate its results to the major academic stakeholders in the European, Brazilian and international scientific and research communities.
- To build an online community among individuals from research, scientific, industrial and related sectors and fields.
- To help strengthening the communication and information exchanges between European and Brazilian energy related industries and research.
- To influence the energy industry, in particular, by improving and using more efficiently the exascale HPC and simulation technology.
- To disseminate the project's results via a public website, participation in conferences and presenting papers to scientific journals.
- To identify the exploitable results of the project and define the potential

commercial products and commercial strategies for these results (target market, business model(s), distribution channels and promotional strategy) to reach the market.

- To build a dynamic community of researchers and application designers who engage with the project via the public website.
- To communicate the potential benefits of HPC4E's research to industry stakeholders and the wider public via targeted events and project dissemination materials.
- To facilitate cross -fertilization with other projects working on overlapping areas

3.1 Target audience

This section lists the target groups of the HPC4E project. In particular, this project should be able to attract the attention of the following groups:

- HPC4E partners
- Scientific community involved in the topics related to the project (with special emphasis on the sectors of oil, wind and biomass)
- Industrial energy stakeholders (atmosphere, biomass and geophysics energy markets)
- Politicians and Governmental institutions
- Research organizations (like PRACE and LNCC)
- Research EU, Brazil and international projects
- General public

3.2 Dissemination channels

In order to effectively reach the targets for dissemination and to maximize the visibility of the project, a broad spectrum of dissemination channels will be used. The public website is the first contact and plays a central role in dissemination followed by a careful chosen list of events, as well as the rest of the external dissemination tools described in section 4 of this document.

3.3 Dissemination team

The WP7 team includes 13 organizations, which are represented in Table 1. The total number of personal months from each partner is included in the list below.

Participant role	Participant organisation name	Person(s) responsible	E-mail address
WP EU Leader	Barcelona Supercomputing Center	Núria Masdéu	nuria.masdeu@bsc.es
WP Exploitation Leader	Barcelona Supercomputing Center	Monica De Mier	monica.demier@bsc.es
WP Brazil Leader	COPPE - Universidade Federal do Rio de Janeiro	Fernando A. Rochinha	faro@mecanica.coppe.ufrj.br
Participant	ITA	Jairo Panetta	jairo.panetta@gmail.com
Participant	Inria	Stéphane Lanteri	stephane.lanteri@inria.fr
Participant	PETROBRAS	Ricardo de Braganca	rbraganca@petrobras.com.br
Participant	CIEMAT	Rafael Mayo-García	rafael.mayo@ciemat.es
Participant	Federal University of Rio Grande do Sul	Philippe O. A. Navaux, Lucas Mello Schnorr	navaux@inf.ufrgs.br , schnorr@inf.ufrgs.br
Participant	Repsol, S.A.	Jesús García San Luis	jgarciasl@repsol.com
Participant	Iberdrola Renovables Energía	Carlos Lozano	clozanoh@iberdrola.es
Participant	Center for Renewable Energy from the Federal University of Pernambuco (CER-UFPE)	Alexandre Costa	alexandre.acosta@ufpe.br
Participant	TOTAL	Henri Calandra	henri.calandra@total.com
Participant	National Laboratory for Scientific Computing	Antonio Tadeu Gomes	atagomes@lncc.br
Participant	Lancaster University	Xi Jiang	x.jiang@lancaster.ac.uk

Table 1: Dissemination team

The dissemination and exploitation leaders will set regular communication channels in order to ensure an optimal communication flow as the coordination between the European and Brazilian partners is highly important and is key for the success of the project. These communication channels will include both mailings and teleconferences.

It is important to highlight that each project partner will be responsible for identifying the contacts associated with their own institutions to be used to spread the results of the projects. Moreover, the WP7 leaders will ensure that each partner fulfils the following requirements:

- Include a link from the partner's website to the HPC4E project website by month 6
- Disseminate the press releases to their own press contacts

- Include at least one article in an organization-related publication (website, newsletter or other) during the project
- Disseminate the promotional material, when necessary

4. Corporate image

A common graphic identity in all dissemination tasks allows better visibility and recognition as well as branding of the project. All dissemination materials will include the name of the project, the website and the graphic elements described in this section such as the logo, written in English (UK), Arial font, and the corresponding template, if applicable.

The brand of the HPC4E project includes its corporate image, brand and style. Guidelines have been given to all partners to ensure coherence and consistency.

4.1 Logo

The main image of the project is the design of the logo, as follows:



Figure 1: HPC4E project's logo

The image combines the more solid, technologic and legible letters on the left with the brushwork on the right, more flexible, alive and natural. The colours used also combine the palette from both European and Brazilian flags, at the same time colours tightly related to both technology and wind energy, biomass.

This logo, approved by all HPC4E partners, should be included in all documentation related to the project and should be ideally used in colour. There is also a black and white version of this logo to be applied with coloured backgrounds, if needed. All versions of this logo can be downloaded in different formats (eps, jpg, png) on the download section of the website (<https://hpc4e.eu/downloads>).

4.2 Typography

The font used in the website is the Raleway typography, in four different thicknesses depending on the kind of text where it is used. The Raleway font is combined with Italic Baskerville in some subtitles.

The recommended font to be used for all documentation is the Arial font because this font-type is available among the vast majority of computers. The Arial font should be used in all dissemination materials.

4.3 Language

The official language of HPC4E project is British English. However, the dissemination material should be translated into the different partners' languages, where possible. Each partner should ensure that the materials are adequately translated into the local languages, e.g. in the case of the press releases for the local media. Funding for this is not included in the dissemination budget.

4.4 Project templates

A set of designed templates will be used in the project.

4.4.1 Power Point

The power point template will be used in all presentations done by all partners and will be added onto the Project portal for all partners to be use. This template gives some design guidelines, as well as a general-purpose HPC4E power point content template that can be incorporated into other presentations in order to disseminate the project and its results.



Figure 2: Power Point template

4.4.2 Poster

All HPC4E posters will follow a template that will be added onto the Project portal for all partners to use (see dissemination pack).

4.4.3 Deliverables

All deliverables will follow a similar look and feel, and structure, as this facilitates the reading. The template will be included in the intranet. All public deliverables will be uploaded onto the website under the section “Downloads / Deliverables”.

4.4.4 Publication acknowledgement sentence

All resulting publications (publications, white papers, technical reports, etc.) should include the following sentence:

The research leading to these results has received funding from the European Union's Horizon 2020 Programme (2014-2020) and from Brazilian Ministry of Science, Technology and Innovation through Rede Nacional de Pesquisa (RNP) under the HPC4E Project (www.hpc4e.eu), grant agreement n° 689772.

5. External dissemination tools

The role of the dissemination tools or activities should ensure that the different targets specified above are aware of the HPC4E project and the strategic relevance and impact of this project for Europe and Brazil. This also includes intensive communication with researchers and industry partners.

5.1 External website

The public website (www.hpc4e.eu) will play the central role as it's the most important channel for disseminating information. It has to provide general information about the project objectives, current activities, publications and achievements of the project.

The WP7 leaders, in collaboration with the dissemination team, are the main people responsible for editing the website content, website deliverables, feedback and statistics. The website will probably be the first contact for all targets and will be regularly updated by all WPs.

The website is designed with a Content Management System called Drupal. This system is managed by a webmaster and web designer team located in the Operations team of the Barcelona Supercomputing Center.

A RSS feed system exists to inform individuals about the latest updates of the websites. The HPC4E webpage also uses a visitor statistics monitoring system from Google Analytics. This information will help to improve the content and structure of the site, as well as having more information about the target audience. The results will be included in the “Final Dissemination and Exploitation Report” deliverable.

The website has been designed as a multi-device experience that works well across different device types: PC, tablets, mobile phones...



Figure 3: HPC4E website (homepage)



Figure 4: HPC4E multi-device website

5.2 Events

Another important dissemination channel will be attendance and presentations at high-level peer-reviewed conferences in the field of HPC, imaging and energy. Presenting the latest updates of the project at such events, meetings or workshops will be an effective means of involving industry leaders in discussions early on. The information will be previously announced on the “Events” page and, if necessary, highlighted in the website and disseminated through social media.

The list of targeted academic/industrial events includes conference and networks of excellence, see tables below.

Event	Dates and location	Partner responsible	Duties
Shaping the cloud excellence between Europe and Brazil. EUBrasilCloudFORUM concertation meeting	18 th March 2016, Rio de Janeiro (Brazil)	COPPE	Presentation
EASC Conference	26 th to 29 th April 2016, Stockholm (Sweden)	CIEMAT	Hot topic abstract
Fostering Collaboration in Research and Technological Developments in Latin America using Cluster, Cloud and Grid Computing co-located workshop at CCGRID 2016	1 day between 16 th to 19 th May 2016, Cartagena (Colombia)	CIEMAT	Article – pending acceptance
ASME Turbo Expo 2016	13 th to 17 th June 2016, Seoul (South Korea)	BSC	Conference presentation
ISC2016	19 th to 23 rd June 2016, Frankfurt (Germany)	BSC	Flyers at BSC booth
9th ICCFD	11 th to 15 th July 2016, Istanbul (Turkey)	BSC	Conference presentation
LNCC-INRIA Workshop	18 th to 22 nd July 2016, Sophia-Antipolis (France)	INRIA and LNCC	Research work includes WP3 and WP6.
SC16	14 th to 17 th November 2016, Salt Lake City (USA)	BSC	Video presentation
SC16	14 th to 17 th November 2016, Salt Lake City	ITA	Attendance

	(USA)		
BDEC conferences	tbd	BSC	Project presentation

Table 2: List of events

5.3 Dissemination pack

5.3.1 General brochure

The general brochure provides information about the HPC4E project, its objectives and future achievements and its impact or benefit to society. The format of the brochure will be a double-sided A4 sheet, so that interested project partners can easily download and print for their own dissemination purposes. It will be distributed in all events or local actions to scientific and industrial contacts defined by each partner. It will also be available on the Downloads section of the HPC4E website by latest month 6.

5.3.2 Poster

A general poster template will be designed to be used by all partners by month 6. It will be used in all events where HPC4E needs to be promoted. The general poster will be done by month 6, and periodically updated, if needed.

5.3.3 Video

A video will be produced to inform about the project aims and its expected results. The idea is to explain about HPC4E project and its outcome promoting the EU-Brazil collaboration, too. The video will include realistic visualizations of simulation data coming from the three application pillars of the project.

This video will be posted at the YouTube channel of BSC and will be presented at the Supercomputing Conference (SC16) exhibition on a screen at the BSC booth. This video will be promoted also via HPC4E social media, as well as the project partners' social media accounts.

6. Press strategy

The press strategy will be consistent with the dissemination strategy and its objectives. As one of the most relevant press activities, the press strategy will last for the complete duration of the HPC4E project.

Press releases are one of the most effective ways of communicating the existence of the HPC4E project to a specific target audience (general public and related institutions). Press releases attract attention to the project's progress and its achievements. The initial press release is the most important one because it defines the HPC4E project objectives as well as its working plan. Ideally, at the end of the project there should be another press release for the dissemination of the project's results.

The content and date of the press release(s) should be ideally agreed by all project partners and each partner has the responsibility of translating the press release in English into their own local language and launching it to the local media.

All press releases will be included in the HPC4E News section of the project website, marked with a tag which will allow its filtering.

Furthermore, all partners will have the opportunity to include it on their institutional website (example: BSC will include the press release into the press section of the website) in order to increase the click rates. The HPC4E website will also include all press releases in all languages as well as all press impacts.



Figure 5: Press conference (BSC, 2016/02/02)

6.1 Social media

The HPC4E project will create a LinkedIn group to share content and information with peers of the same industry or with similar interests and to make industry and expert contacts in order to build a community around the project and to drive traffic to the project website.

The activity of the project in the LinkedIn social network will include the posting of some pieces of news or announcements in third-parties groups, related to energy and with special emphasis on the sectors of oil, wind and biomass.

The activity and engagement levels will be monitored as a way to improve the dissemination team performance in social media.

7. Collaboration with other energy Brazil-EU related initiatives and projects

The collaboration with current (and future) energy Brazil- EU related initiatives and projects is fundamental for the strengthening of the collaboration between European Union and Brazil, as energy is one of the current priorities for EU-Brazil cooperation.

The aim is to encourage synergies between projects and promote activities of

common interest. It will be represented through joint activities such as:

- Collaboration agreements with other energy initiatives and other HPC related projects
- Attendance to EU concertation meetings and participate in concertation activities related with HPC and energy area.
- Promotion of these activities in the different HPC4E dissemination materials such as the website, social media, etc.

8. Results analysis

All dissemination activities and tasks will be carefully monitored. Quality metrics will be examined and some quantitative indicators can be the following ones:

- Number of unique website visitors and their location captured by Google Analytics.
- Number of HPC4E related presentations at public events and events where HPC4E has been present, i.e. through exhibition booth or dissemination materials
- Number of press impacts in national and international media
- Number of people following HPC4E on social media
- Number of social media analysis tools such as LinkedIn Analytics or Twitter Analytics

Key Performance Indicator	Frequency	Total target (by the end of the project)
Press releases	At least 1 in a year	2
Media clippings	Articles appeared at the press about HPC4E	75
Project flyer	At least one brochure regularly updated	1
Website sessions	Number of sessions registered by Google Analytics	6,000 sessions/year
Video	Promotional video to disseminate the project	1
Events attended	Where the project had a presence and was disseminated through a presentation, booth, poster, etc.	30
Collaboration agreements	Over the project	Between 3 - 5

Table 3: Key Performance Indicators

9. Exploitation

Together with dissemination, WP7 includes the exploitation of the results and the knowledge transfer of the project to the research community, industry, policymakers and society. The objective is to identify the exploitable results of the project and define the potential commercial products and commercial strategies for these results (target market, business model(s), distribution channels and promotional strategy) to reach the market.

Through this task, the HPC4E consortium will build a deep understanding of the project market and exploitation context, aiming at providing a solid base for further exploitation actions. The main activities are:

- Analysis of the exploitation context: it will be carried out in order to find out what is the actual market situation. The potential target market (or target users) and the early adopters will be identified and analysed. Also the competitive situation and the main market player and their solutions will be studied.
- Exploitation strategy: based on the exploitation context analysis, we will elaborate an exploitation plan.
- Synergies with major European and Brazilian energy-related initiatives. Europe currently develops a strong energy effort with initiatives such as the European Energy Research Alliance (EERA), KIC InnoEnergy and/or the European Strategic Forum of Research Infrastructures (ESFRI) energy section, where the highest stakeholders define the future road-maps and advice on European energy development and deployment. Some HPC4E partners, such as CIEMAT, are national representatives in these initiatives and can disseminate the project outcomes. In Brazil, Petrobras is a key actor in the energy market. Brazilian Universities, Laboratories and Petrobras also interact with the Brazilian Petroleum Agency, the Brazilian regulatory agency for the oil and gas.

The consortium partners have already identified their intentions for using and exploiting the results of the project. They are presented in the table below:

	Partner	Exploitation Plans
EU	BSC	BSC will use the results of this project to improve its internal research lines in exascale computing, wind farm modeling, combustion and seismic imaging. The benefit will be: the new algorithms and methods that are going to be developed and tested; the new data sets with industrial significance that will be reused; and the reinforcement of the collaboration with key partners both in EU and Brazil. Our regular collaboration with Brazilian research groups will be increased in terms of joint publications, organization of events, etc. An important point for BSC is technology transfer with industry. Some of the BSC developments in this Project will be used inside REPSOL and IBERDROLA platforms, increasing BSC exposition to industrial relevant problems.
	INRIA	<p>For INRIA, the results generated by the project will take the form of (1) theoretical and methodological results, (2) software and, (3) data obtained from the application of algorithms and software tools. Concerning the first type of results, the main objective will be to disseminate the corresponding data to the research community through publications in scientific journals and participation to international conferences. These results will also be useful in educational training both internally and externally. Software results will contribute to enhanced functionalities and new versions of existing software modules, libraries or dedicated tools linked to the activities considered in work packages WP2 and WP3. In most cases, INRIA has already setup the appropriate mechanisms for the dissemination and exploitation of these software entities when they are made available to a larger user community through an appropriate licensing scheme. These mechanisms (websites, user group meetings, newsletters, etc.) will thus be upgraded in order to take into account the results generated by the project. Finally, results of application of algorithms and software tools will be those obtained in the context of work packages WP4 to WP6.</p> <p>In particular, in the case of the geophysics for energy application context, some of the results of INRIA's activities in WP2 and WP3 will be directly exploited in proprietary simulation platforms of PETROBRAS and TOTAL. More generally, the project results will also be used to strengthen the existing scientific collaborations between INRIA project-teams and groups from the participating Brazilian academic institutions (joint publications, co-organization of special sessions and mini-symposium in international conferences, submission of joint proposals to other funding schemes, etc.). The young researchers (doctoral and postdoctoral students) involved in the project will have the opportunity to work closely with major industrial companies in the energy domain, and take advantage of that for their future professional careers.</p>

	ULANC	<p>The exploitation at Lancaster University will be carried out mainly through the SUPERGEN Bioenergy Hub (http://www.supergen-bioenergy.net/), which brings together industry, academia and other stakeholders to focus on the research and knowledge challenges associated with increasing the contribution of UK bioenergy to meet strategic environmental targets in a coherent, sustainable and cost-effective manner. The research outcomes of WP5 can be further exploited by the relevant industrial sectors in the EU and Brazil.</p>
	CIEMAT	<p>CIEMAT is a R&D multidisciplinary centre with dozens of groups using HPC facilities, the computational developments that will be achieved by HPC4E will be directly adopted by those groups in their codes/applications with the support of the CIEMAT staff involved in the project. Efficient computational and algorithm techniques produced by WP2 and WP3 will improve the quality and quantity of scientific results in many disciplines, but mainly in the energy sector, as CIEMAT is the main Spanish public organism working on this topic.</p> <p>CIEMAT is also deeply interested in improving the understanding of the operation of small size reformers using bio-mass derived gas fuel to produce hydrogen (T5.4). This is an active line of technological development that has a direct transfer of knowledge to the industry. In this sense, it is of utmost importance to ensure that the community will have access to these results, which will be published in peer-reviewed international journals with open access.</p> <p>In addition, it is worth mentioning that CIEMAT holds the Spanish representation at EERA and ESFRI-ENERGY, so the results produced by HPC4E will have a direct impact in the European energy sector.</p>
	REPSOL	<p>Until 1999 REPSOL had not activity in exploration and production in O&G. REPSOL focused its activities in the area of downstream (refining, petrochemicals and marketing of gas). REPSOL understood the importance of developing leading edge proprietary technology in the sector, in order to compete in a market where it was a newcomer, This view was especially fruitful in hydrocarbon exploration geophysics, and since 2007 REPSOL maintains an ambitious development plan in Imaging Technology. REPSOL plans to use the results of the project to increase their knowledge about implementation of imaging algorithms on exascale HPC systems. Moreover we want to use this technology to reduce exploration risk, characterize areas with exploratory interest and monitor production sites.</p>

	IBR	<p>In the last two years Iberdrola has been awarded with the construction and operation of 378 MW (additionally to 50 MW already in operation) in Brazil. This makes Brazil the main growing area of Iberdrola's wind assets. This is just a step in the continuous target for the company to grow in Brazil as a promising new renewable energy market.</p> <p>Wind energy resource in Brazil at certain areas is very high, and precise energy evaluation techniques are critical to ensure the economic and technical viability of the wind farms development.</p> <p>Supercomputing applied to CFD's algorithms will be applied in the development of these new wind farms, these new techniques will reduce uncertain and de-risk investment portfolios, that would help in applying to new energy auctions in the future.</p>
	TOTAL	<p>Scalable numerical methods for seismic depth imaging are a challenging problem.</p> <p>The design of an accurate sub-surface model is key for minimizing economical risks. Having access in advance to leading edge technology such as advanced numerical methods for solving elastic wave equation and advanced High Performance Computing is an unique opportunity to develop new seismic depth imaging providing a competitive advantage. TOTAL plans integrate the results of this project in the in-house seismic depth image suite used at TOTAL for seismic projects. We will first integrate and tests the prototypes developed during the different phase of the project. After a full validation and benchmarking process, specific workflow will be designed to integrate these new tools into the production platform.</p>
	COPPE	<p>COPPE is the largest graduate school in Engineering and Computer Science in Latin American and recognized as an excellency center in both areas. COPPE operates the 2nd largest HPC machine in the Brazil. COPPE is a pioneer in the development of HPC applications in Brazil and has a long collaboration with Petrobras and the other Brazilian partners. The present project will boost COPPE's collaboration with industry in highly demanding areas and strengthen its partnership with leading institutions in Brazil and Europe.</p>

	LNCC	<p>The National Laboratory for Scientific Computing (LNCC) aims to create and apply mathematical models and numerical methods to simulate complex phenomena, develop and manage high-performance computing environments (a petaflop system with hybrid architecture will be installed in July 2015), train human resources, and promote technology transfer and innovation. In the context of this project, the LNCC plans to adopt the new simulator software as a platform to make the innovative numerical techniques and the underlying computational parallel algorithms available for the scientific community. Also, the LNCC intends to collaborate in the transfer of these novel technologies to Petrobrás/Brazil and Total/France, tailored to the high demanding-applications proposed by these oil companies. Teaching and training high-quality human resources in the cutting-edge numerical and computational techniques is also central in this project. This should use intensively an open-source version of the simulator software.</p>
	ITA	<p>ITA has elite undergraduate and graduate programs in Engineering with strong ties to universities and research centers in Brazil and abroad, but lack interactions with the EU project partners. It is ITA intention to build ties with the EU partners that should last over time, with large impact on graduate programs. Furthermore, a sensible part of the research in Exascale HPC of the EU project partners use computing machinery build in Europe that is not available in Brazil. Access to such equipment certainly induces research directions that will last longer than the project lifetime. Furthermore, the knowledge build on optimizing seismic kernels to exascale machinery will influence the more than two decades long cooperation with Petrobras daily seismic production.</p>
	PETROBRAS	<p>PETROBRAS has in its strategic plan, the goal of Discover and appropriate reserves in Brazil and also to develop exploratory efforts in the Brazilian sedimentary basins. Most of these reserves are in the sub salt fields and to face the new challenges posed by the sub salt geological complexity, PETROBRAS need to boost its seismic processing capabilities to a new level. The results of this project could be of invaluable help for this achievement. We can use the results of this project in order to define the best HPC hardware for our goals and directly use the new algorithms and techniques provided by this project inside the core of our own seismic software in order to improve the quality of subsurface image.</p>

<p>INF-UFRGS</p>	<p>The Parallel and Distributed Processing Group (GPPD), from the Institute of Informatics of the UFRGS, will work especially on WP2 to develop new technologies to optimize the performance and the energy consumption of applications models from the WP4, 5 and 6. Using heterogeneous architectures with accelerators (CPU with GPU) will be used for enhancing the performance and the energy efficiency on Geophysics Models. Development of tools for promoting the best combination for heterogeneous systems (CPU + co-processors) looking for the best computing performance is a very relevant research for the HPC. The results of the project will guide new research activities at the INF UFRGS related to HPC, opening new research lines and preparing to develop new technologies and software that can be used by both industries and academia. We plan also to use the results and problems of the project to train graduate and undergraduate students to work on the new technologies and preparing them to industries challenges. This research projects will increase the international cooperation between EU and Brazil, between universities and industries and opening opportunities for graduate student research with double advisory agreement between universities.</p>
<p>CER-UFPE</p>	<p>UFPE has been developing R&D activities, training human resources and promoting technology transfer and innovation on Wind Energy since the beginning of the 90s when it installed the first large scale commercial wind turbine generator (connected to the grid) all over South America. Particularly in this project, the Centre for Renewable Energy from UFPE (CER-UFPE) aims to improve statistical and dynamical models to describe the wind and wind power behaviour at different time scales (from some hours to several years) and to optimise the implementation of such models in high-performance computing environments. The gained knowledge will improve the CER-UFPE's free training programs in undergraduate and graduate levels and will boost the CER-UFPE's collaboration with industry, universities and research centres all over the world in extremely important areas for the Energy sector as well as HPC sector.</p>

Table 4: Partners exploitation plans

Although some public synthetic models will be generated, most data will be private to the companies involved, unless they want to exceptionally release it. Thus, the IP will stay with partners 100%, except for open-access prototypes and community models.

WP7 leaders and the dissemination manager will work on close coordination to ensure maximum dissemination and impact of the project.



List of Figures

Figure 1 – HPC4E project’s logo	8
Figure 2 – Power Point template	9
Figure 3 – HPC4E website (homepage)	11
Figure 4 – HPC4E multi-device website	11
Figure 5 – Press conference (BSC, 2016/02/02)	14

List of Tables

Table 1 – Dissemination team	6
Table 2 – List of events.....	12
Table 3 – Key Performance Indicators.....	16
Table 4 – Partners exploitation plans.....	17