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PRACE-4IP

PRACE Fourth Implementation Phase Project

Grant Agreement Number: EINFRA-653838

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Final Communication and Outreach report

Final

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[1]   PRACE-4IP WP3 Deliverable 3.2 – Communication and Outreach Report Year 1
        http://www.prace-ri.eu/IMG/pdf/D3.2_4ip.pdf

[2]   Mailerlite, a Customer Relationship Management System (CRM)

https://www.mailerlite.com/

[3] PRACE Digest 2016 – Industry Edition http://www.prace-ri.eu/prace-digest/

[4] PRACE-4IP WP3 Deliverable 3.1 – Communication and Outreach Update Plan, Confidential deliverable, available to reviewers

[5] PRACE website http://www.prace-ri.eu

[6] SearchWP plug-in www.prace-ri.eu/callproject/

[7] Stand-alone article „The Death of Galaxies" http://www.prace-ri.eu/the-death-of-galaxies/

[8] Press Release on the inaugural PRACE Ada Lovelace Award for HPC http://www.prace-ri.eu/2016praceadalovelaceaward/

[9] INSIGHT Publishers, specialist research dissemination agency www.ipl.eu.com

[10] Alpha Galileo http://www.alphagalileo.org

[11] Science Node https://sciencenode.org/

[12] HPCwire https://www.hpcwire.com/

[13] Scientific Computing World https://www.scientific-computing.com/

[14] The Parliament Magazine https://www.theparliamentmagazine.eu/

[15] PRACE Twitter account https://twitter.com/prace_ri

[16] PRACE YouTube Channel www.youtube.com/user/PRACERI

[17] PRACE LinkedIn Company Page www.linkedin.com/company/prace

[18] PRACE Google + page https://plus.google.com/106259565187155540236

[19] HootSuite https://hootsuite.com

[20] PRACE Wikipedia page https://en.wikipedia.org/wiki/Partnership_for_Advanced_Computing_in_Europe

[21] PRACE Newsletter webpage www.prace-ri.eu/newsletters

[22] PRACE White Papers http://www.prace-ri.eu/white-papers/

[23] PRACE Benchmark Suite http://www.prace-ri.eu/ueabs/

[24] PRACE Best Practice Guides http://www.prace-ri.eu/best-practice-guides/

[25] PRACE CodeVault http://www.prace-ri.eu/prace-codevault/

[26] PRACE MOOCs https://www.futurelearn.com/courses/supercomputing

[27] PRACE Summer of HPC Facebook page https://www.facebook.com/SummerOfHPC

[28] PRACE Project Access http://www.prace-ri.eu/prace-project-access/

[29] DECI http://www.prace-ri.eu/deci-projects/

[30] SHAPE http://www.prace-ri.eu/hpc-access/shape-programme/

[31] PRACE Dare to Think the Impossible Campaign Page www.prace-ri.eu/daretothinktheimpossible

[32] PRACEdays16 YouTube Playlist https://www.youtube.com/playlist?list=PLfDqbLv1vSqjg2r9S9DY9nMPfdH5nSoFm

[33] EUCYS 2016 http://eucys2016.eu/about/european-union-contest-for-young-scientists/

[34] EXDCI https://exdci.eu/

[35] EXDCI Job Portal https://exdci.eu/jobs-and-training/job-portal

[36] ISC www.isc-hpc.com

[37] SC http://supercomputing.org/

[38] PRIDE www.mipro.hr/MIPRO2015.PRIDE/ELink.aspx

[39] MIPRO www.mipro.hr

[40] EU English Style Guide http://ec.europa.eu/translation/english/guidelines/documents/styleguide_english_dgt_en.pdf

[41] ELIXIR http://www.elixir-finland.org/

[42] SUGARCRM https://www.sugarcrm.com

[43] PRACE Summer of HPC webpage https://summerofhpc.prace-ri.eu/

[44] Vision Comunication Consultancy http://www.vision-communication.org/

[45] Dare to Think the Impossible portal http://www.prace-ri.eu/daretothinktheimpossible/

[46] Vlasiator http://vlasiator.fmi.fi/

[47] Twitter Analytics https://analytics.twitter.com/user/PRACE_RI/home

[48] YouTube Analytics
https://www.youtube.com/analytics?o=U#dt=lq,fe=16616,fr=lw-001,fs=16526;fcr=0,r=summary,rps=7

[49] Google Insights
https://business.google.com/u/0/b/106259565187155540236/insights/l/17470896394157560014

[50] Google+ Statistics http://www.allmyplus.com/u/106259565187155540236

[51] LinkedIn Analytics
https://www.linkedin.com/company/prace/analytics?trk=top_nav_analytics

[52] Digital Day HPC video https://www.youtube.com/watch?v=yyB6YjRJSKM&t=3s

[53] Summer of HPC 2016 Projects http://summerofhpc.prace-ri.eu/projects-2016/

[54] Summer of HPC 2016 training week and application site https://events.prace-ri.eu/event/sohpc2016

[55] Summer of HPC 2016 training week agenda https://events.prace-ri.eu/event/477/other-view?view=standard

[56] SoHPC 2016 Youtube playlist page
https://www.youtube.com/playlist?list=PLhpKvYInDmFWy66381nifGkCJBLb6iwGf

[57] SoHPC 2016 Award ceremony page http://www.prace-ri.eu/summer-of-hpc-2016-awards-ceremony-at-cineca/

[58] PRACEdays17 webpage on Indico https://events.prace-ri.eu/event/575/

[59] PRACE Fact Sheets http://www.prace-ri.eu/media/factsheets/

List of Acronyms and Abbreviations

AISBL	Association Internationale Sans But Lucratif (legal form of the PRACE-RI)
BoD	PRACE Board of Directors
BSCW	PRACE shared workspace and document repository
BTYSTE	BT Young Scientist and Technology Exhibitions
CMS	Content Management System
CRM	Customer Relationship Management
Dx.x	Deliverable x.x
DECI	PRACE European Tier-1 HPC resources (national systems) access programme
EC	European Commission
EPSRC	The Engineering and Physical Sciences Research Council (United Kingdom)
ETP4HPC	The European Technology Platform for High Performance Computing
EUCYS	European Union Contest for Young Scientists
EXDCI	European Extreme Data & Computing Initiative
HPC	High Performance Computing; Computing at a high performance level at any given time; often-used synonym with Supercomputing
ICT	Innovate, Connect, Transform/ Information Communication Technology Conference
ICRI	International Conference on Research Infrastructures
IEP	Institute of Experimental Physics, SAS
ISC	International Supercomputing Conference held annually in Germany
IT	Information Technology
JSC	Jülich Supercomputing Centre (Forschungszentrum Jülich, Germany)
KPI	Key Performance Indicators
KIFÜ	Governmental Information Technology Development Agency (Hungary)
MailPoet	A Mass mailing service for WordPress
MIPRO	International Convention on Information and Communication technology, electronics and microelectronics
MoU	Memorandum of Understanding
NUIG	National University of Ireland, Galway
PATC(s)	PRACE Advanced Training Centre(s)
PMO	PRACE Project Management office at JSC
PRACE	Partnership for Advanced Computing in Europe; Project Acronym
PRACE 2	Internal notation for the continuation of PRACE's activities for the second phase of its development
PRACEdays	The annual PRACE Scientific and Industrial conference
PRACE-xIP	PRACE-x Implementation Phase Project
PRACE-PP	PRACE Preparatory Phase Project
PRIDE	Project Information and Dissemination Event
RISC	Research Institute for Symbolic Computation (Austria)
SHAPE	SME HPC Adoption Programme in Europe: a pan-European, PRACE-based programme supporting HPC adoption by SMEs
SAS	Slovak Academy of Sciences
SC	Supercomputing Conference held annually in the USA
SoHPC	PRACE Summer of HPC, PRACE Summer placement programme for early-stage postgraduates and late-stage undergraduate students
SIVVP	Slovak infrastructure for HPC
STEM	Science, Technology, Engineering and Mathematics
Tx.x	Task x.x

Tier-0/Tier-1	Denotes the apex of a conceptual pyramid of HPC systems. In this context the Supercomputing Research Infrastructure would host the Tier-0 systems; national or topical HPC centres would constitute Tier-1
WordPress	A website content management system (CMS) used by PRACE
WPx	Work Package x

List of Project Partner Acronyms

BADW-LRZ	Leibniz-Rechenzentrum der Bayerischen Akademie der Wissenschaften, Germany (3rd Party to GCS)
BILKENT	Bilkent University, Turkey (3rd Party to UYBHM)
BSC	Barcelona Supercomputing Center - Centro Nacional de Supercomputacion, Spain
CaSToRC	Computation-based Science and Technology Research Center, Cyprus
CCSAS	Computing Centre of the Slovak Academy of Sciences, Slovakia
CEA	Commissariat à l'Energie Atomique et aux Energies Alternatives, France (3rd Party to GENCI)
CESGA	Fundacion Publica Gallega Centro Tecnológico de Supercomputación de Galicia, Spain, (3rd Party to BSC)
CINECA	CINECA Consorzio Interuniversitario, Italy
CINES	Centre Informatique National de l'Enseignement Supérieur, France (3rd Party to GENCI)
CNRS	Centre National de la Recherche Scientifique, France (3rd Party to GENCI)
CSC	CSC Scientific Computing Ltd., Finland
CSIC	Spanish Council for Scientific Research (3rd Party to BSC)
CYFRONET	Academic Computing Centre CYFRONET AGH, Poland (3rd party to PNSC)
EPCC	EPCC at The University of Edinburgh, UK
ETHZurich (CSCS)	Eidgenössische Technische Hochschule Zürich – CSCS, Switzerland
FIS	FACULTY OF INFORMATION STUDIES, Slovenia (3rd Party to ULFME)
GCS	Gauss Centre for Supercomputing e.V.
GENCI	Grand Equipement National de Calcul Intensiv, France
GRNET	Greek Research and Technology Network, Greece
INRIA	Institut National de Recherche en Informatique et Automatique, France (3rd Party to GENCI)
IST	Instituto Superior Técnico, Portugal (3rd Party to UC-LCA)
IT4Innovations	VYSOKA SKOLA BANSKA - TECHNICKA UNIVERZITA OSTRAVA, IT4Innovations National Supercomputing Center, Czech Republic
IUCC	INTER UNIVERSITY COMPUTATION CENTRE, Israel
JKU	Institut fuer Graphische und Parallele Datenverarbeitung der Johannes Kepler Universitaet Linz, Austria
JUELICH	Forschungszentrum Juelich GmbH, Germany
KIFÜ	Kormányzati Informatikai Fejlesztési Ügynökség, Hungary
KTH	Royal Institute of Technology, Sweden (3rd Party to SNIC)
LiU	Linkoping University, Sweden (3rd Party to SNIC)
NCSA	NATIONAL CENTRE FOR SUPERCOMPUTING APPLICATIONS, Bulgaria

NTNU	The Norwegian University of Science and Technology, Norway (3rd Party to SIGMA)
NUI-Galway	National University of Ireland Galway, Ireland
PRACE	Partnership for Advanced Computing in Europe aisbl, Belgium
PSNC	Poznan Supercomputing and Networking Center, Poland
RISCSW	RISC Software GmbH
RZG	Max Planck Gesellschaft zur Förderung der Wissenschaften e.V., Germany (3rd Party to GCS)
SIGMA2	UNINETT Sigma2 AS, Norway
SNIC	Swedish National Infrastructure for Computing (within the Swedish Science Council), Sweden
STFC	Science and Technology Facilities Council, UK (3rd Party to EPSRC)
SURFsara	Dutch national high-performance computing and e-Science support center, part of the SURF cooperative, Netherlands
UC-LCA	Universidade de Coimbra, Labotatório de Computação Avançada, Portugal
UCPH	Københavns Universitet, Denmark
UHEM	Istanbul Technical University, Ayazaga Campus, Turkey
UiO	University of Oslo, Norway (3rd Party to SIGMA)
ULFME	UNIVERZA V LJUBLJANI, Slovenia
UmU	Umea University, Sweden (3rd Party to SNIC)
UnivEvora	Universidade de Évora, Portugal (3rd Party to UC-LCA)
UPC	Universitat Politècnica de Catalunya, Spain (3rd Party to BSC)
UPM/CeSViMa	Madrid Supercomputing and Visualization Center, Spain (3rd Party to BSC)
USTUTT-HLRS	Universitaet Stuttgart – HLRS, Germany (3rd Party to GCS)
WCNS	Politechnika Wroclawska, Poland (3rd Party to PNSC)

Executive Summary

This deliverable, entitled Final Communication and Outreach Report, follows on from Deliverable D3.2 - Communication and Outreach Report Year 1 [1] - and reports on the implementation of that plan by the PRACE Fourth Implementation Phase project Work Package 3 (PRACE-4IP WP3), in the reporting period 1 May 2016 – 30 April 2017.

PRACE-4IP WP 3 is composed of the following three tasks:

- Task 3.1 - Dissemination
- Task 3.2 - Brand, Image and Identity
- Task 3.3 - Outreach

The highlights of the 3.1 Dissemination task include:

- The production of the PRACE Digest magazine with focus on HPC for Industry [3];
- PRACE booths at five events including the annual Supercomputing (SC) and International Supercomputing (ISC) conferences;
- The third annual PRACE Scientific and Industrial Conference, PRACEdays16 held in Prague, Czech Republic from 10 to 12 May 2016.

The highlights of the 3.2 Brand, Image and Identity task include:

- The preparation of a new lay-out for the PRACE website homepage, and improvements to the website as a whole in terms of performance;
- Implementation of a new customer relationship management system (CRM, Mailerlite [2]).
- Preparation of a Transition Report that details the most essential tasks of WP3.

The highlights of the 3.3 Outreach task include:

- The successful completion of 21 projects by 21 students at ten High Performance Computing (HPC) sites during the PRACE Summer of HPC (SoHPC) 2016;
- PRACE presence at five science fairs.

PRACE-4IP WP3 has successfully communicated the results of the PRACE-4IP project and promoted and publicised the activities and outputs of PRACE through press releases, news articles, a digest magazine, presence at high-profile events and PRACEdays16. The Transition Report will support the hand-over to PRACE aisbl or to a follow-up PRACE-IP project. The Transition Report serves as a manual for partners who have not been involved in a certain task, e.g. partners in PRACE-5IP WP4 who are taking over the PRACE Summer of HPC from PRACE-4IP WP3.

1 Introduction

The PRACE Fourth Implementation Phase project Work Package Three (PRACE-4IP WP3) builds on, complements and extends the work carried out during the PRACE Preparatory Phase (PP), PRACE-1IP, PRACE-2IP, and PRACE-3IP projects.

The role of WP3 in PRACE-4IP is to disseminate the activities and results of PRACE, strengthen its brand and corporate image, and maintain and expand outreach.

To fulfil this role, WP3 is divided into the following three tasks:

- Task 3.1 - Dissemination
- Task 3.2 - Brand, Image and Identity
- Task 3.3 - Outreach

This deliverable follows on from PRACE-4IP D3.2 [1] and reports on the implementation of those plans by the PRACE-4IP project in the reporting period between 1 May 2016 and 30 April 2017.

This deliverable is divided into five chapters. Chapter two describes the work of the Dissemination task, Chapter three the work of the Brand, Image and Identity task, Chapter four the work of the Outreach task, and Chapter five draws conclusions. Section 3.1.4 – Transition Report lists the essential tasks that need to be transitioned to PRACE aisbl or to a follow-up PRACE-IP project. The Summer of HPC Manual is part of the Transition Report.

2 Dissemination

Dissemination allows PRACE to effectively communicate and connect with its multiple stakeholders, including the scientific community, the general public, users of PRACE services, new and upcoming user communities, governmental stakeholders and the media.

Dissemination material follows the Interim Brand, Image and Identity Guide outlined in PRACE-4IP D3.1 [4].

The dissemination task (Task 3.1) includes the following sub-tasks:

- 3.1.1 Web
- 3.1.2 Science Publications
- 3.1.3 Press
    - Press Releases
    - PRACE Newsletter / PRACE Info Bulletin
    - PRACE Brochure / Posters / Roll-Up
    - Advertising
- 3.1.4 Social Media
- 3.1.5 PRACEdays15, PRACEdays16, and preparation of PRACEdays17
- 3.1.6 General Events including SC and ISC

Each of these sub-tasks is reported on in detail in the following sections.

WP3 also supports the dissemination of the work done by other work packages, e.g. MOOCs [26], SHAPE [30], White Papers, Best Practice Guides, among others. Where relevant, reference is made to these activities in the sections below.

2.1   Web

During the reporting period, the PRACE RI official website [5] (Figure 1) maintained its status as the focal point of the project web presence. Project activities, updates, news and reports were published here. The most important pieces were highlighted on the homepage (Calls for Proposals for Project Access, PRACE Events, Publications, Project Outcomes, etc.).
The technical operation team and the content team continued to work in parallel with regular cross-team interactions to align tasks.

Figure 1 – Current PRACE Website Homepage
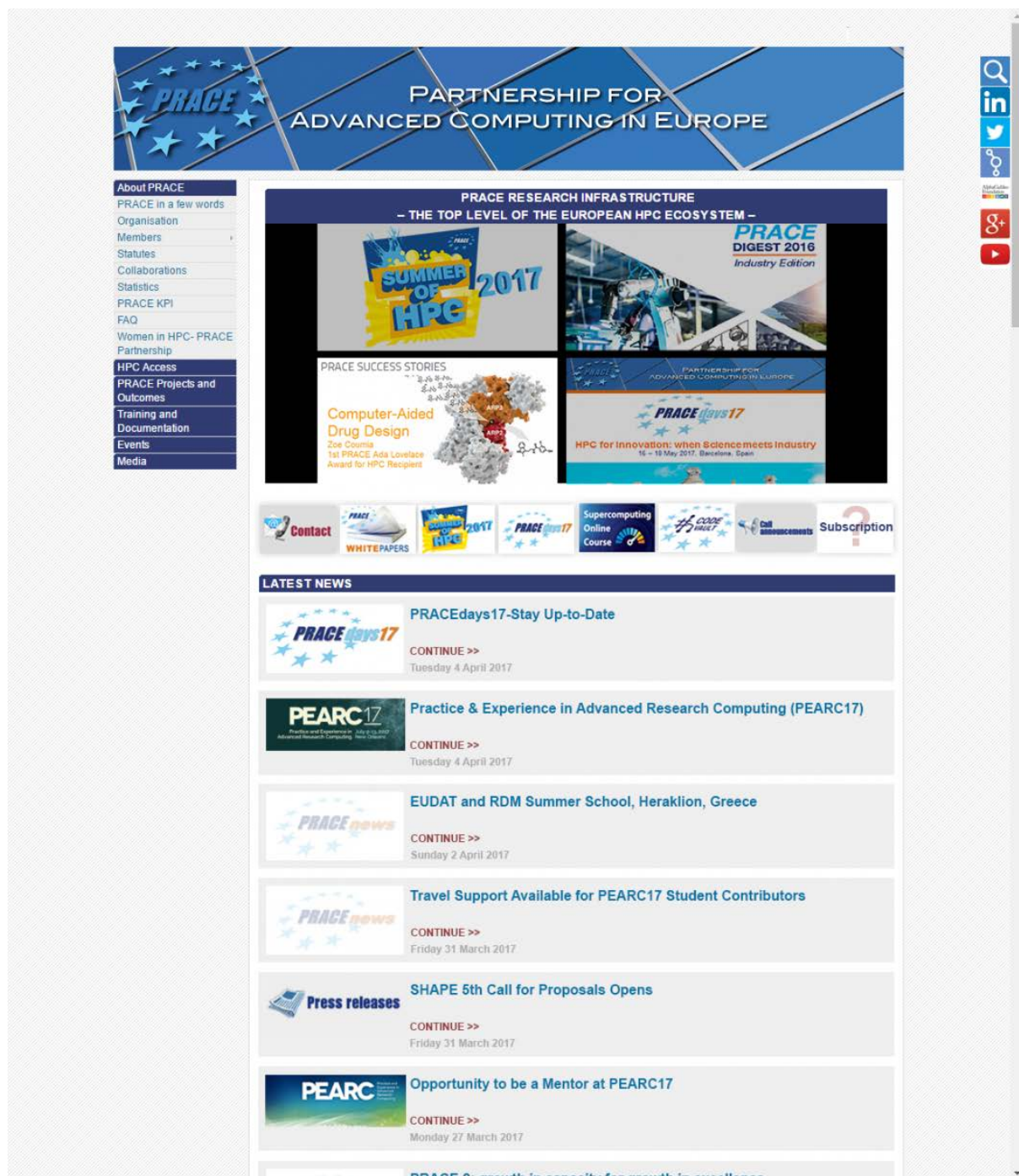
Figure 2 –Future PRACE Website Homepage (example)

Website Statistics

From 1 May 2016 to 1 January 2017 the PRACE website received 118 195 page-views from 32 209 users (Figure 3).
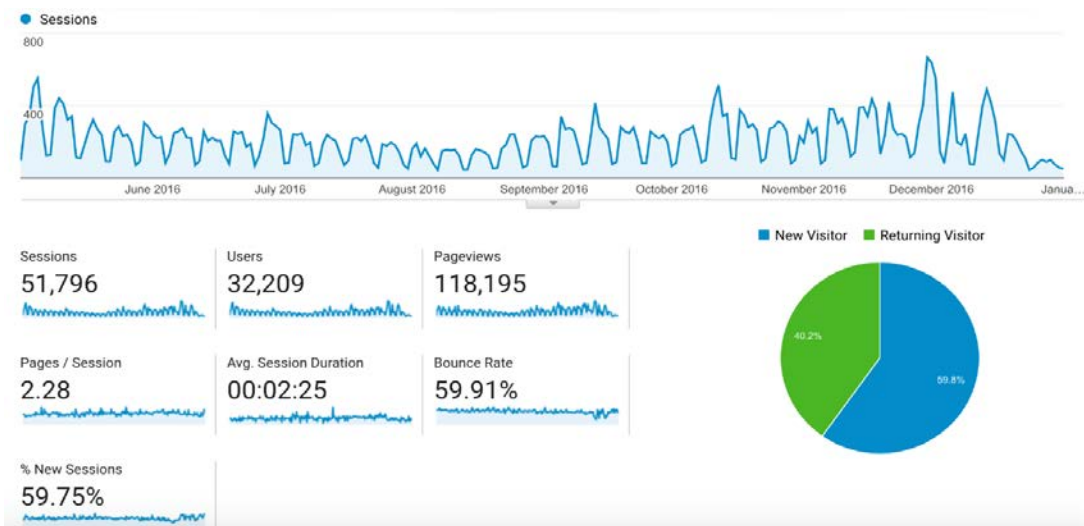
Figure 3 – PRACE Website visitors 1 May 2016 to 31 January 2017

Visits from 164 countries were recorded.
Figure 4 shows the top ten countries from which users originated.
Figure 5 shows sessions by continent.

	Country	Sessions ⇕ ↓	Sessions ⇕
		75,676 % of Total: 100.00% (75,676)	75,676 % of Total: 100.00% (75,676)
1.	United States	6,771	8.95%
2.	Germany	6,249	8.26%
3.	United Kingdom	6,212	8.21%
4.	France	5,934	7.84%
5.	Italy	5,314	7.02%
6.	Spain	4,676	6.18%
7.	Belgium	4,380	5.79%
8.	Russia	4,190	5.54%
9.	Greece	2,273	3.00%
10.	India	2,158	2.85%

Figure 4 – Top ten countries 1 May 2016 to 31 March 2017
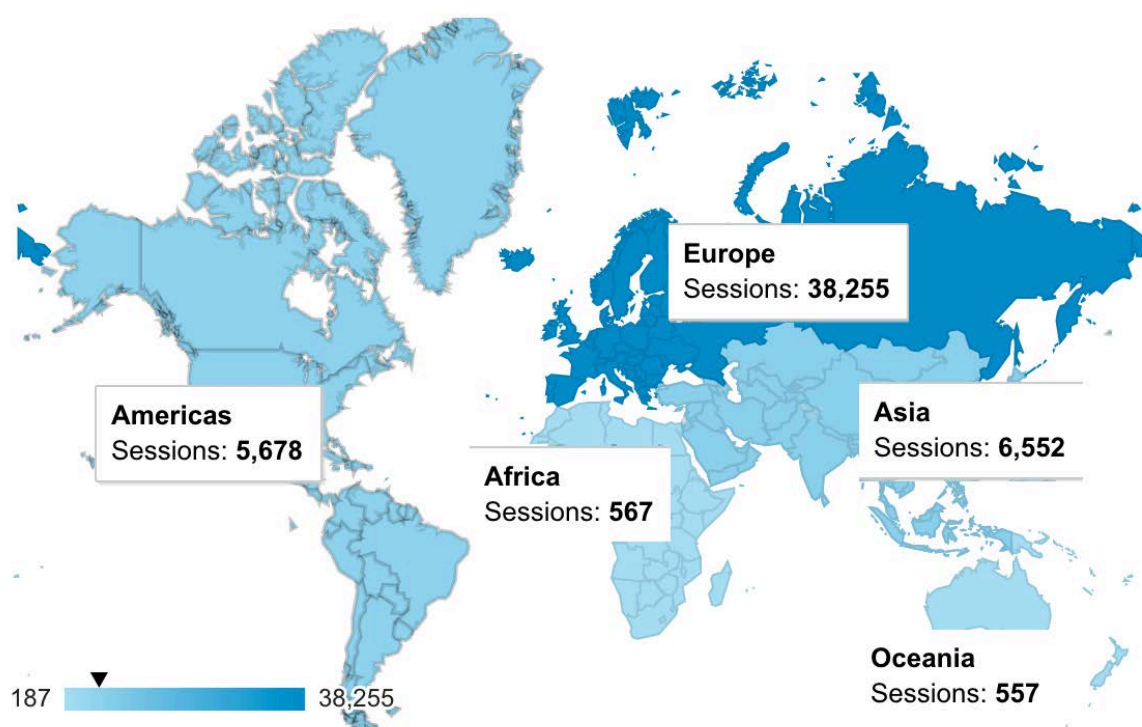
Figure 5 – Sessions by continent

The most visited pages spanned a range of topics including information on PRACE Calls for Proposals for Project Access, resources, job vacancies, and PRACE Best Practice Guides (shown in Table 1).

Rank	Page Title	Page-views	Unique Page-views
1	PRACE Research Infrastructure	21 217	16 997
2	PRACE Project Access	4 582	3 762
3	Best Practice Guide - Intel Xeon Phi	3 581	3 156
4	PRACE Call Announcements	3 137	2 160
5	PRACE in a few words	2 851	2 460
6	Members	2 189	1 851
7	Job vacancies	1 971	1 587
8	Application Procedure	1 844	1 413
9	PRACE Preparatory Access	1 757	1 401
10	PRACEdays16	1 682	1 370

Table 1 – Top 10 visited pages

Content

Web content was continually updated during the reporting period including, among others, the addition of information on PRACE Calls for Proposals for Project Access and results, success stories, press releases, Key Performance Indicators (KPIs), PRACE publications, and information from the HPC ecosystem, such as announcements and events. Furthermore, the site regularly promotes PRACE events, such as PRACEdays, PRACE Seasonal Schools and PRACE's presence at high-profile conferences, with visually enhanced pages and banners. The website has been the primary forum for disseminating achievements of other WPs, like White Papers [22], Benchmark Suite [23], Best Practice Guides [24], CodeVault [25], and PRACE MOOCs [26].

Operation and improvements

The primary objective of the web task is to sustain high availability and integrity of the website and its content, without any disruption or performance issues. Over the course of the project, the operation team continuously monitors the website to maintain a high level of security to avoid any malicious events occurring, by analysing potential vulnerabilities.

Reviews of existing content have been undertaken and have resulted in the removal or amendment of dead links and out-dated content, as well a double content caused by automated posting systems. The performance of automated mail sending is also under improvement, and regular updates from the webpage mail database to the CRM database (Mailerlite) were made.

Ways of improving performance were investigated by running performance profiling of the system running the website and enhancing caching features. After the integration of the new CRM system (Mailerlite – see 3.1.3), the mass mailing feature of website was shut down, further improving overall performance.

A new calendar system integrated with PRACE Events Portal (featuring mainly Training Events and Internal Meetings) was introduced to have a visual overview of the upcoming PRACE events (Figure 6).

Figure 6 – PATC event calendar at http://www.prace-ri.eu/patcs-courses-calendar/

To make PRACE news more visible in the "Latest News" section of the homepage, the job vacancies were moved to the Job Portal of the European eXtreme Data and Computing Initiative (EXDCI [34], [35]) and the top menu item "Job vacancies" on the PRACE website now redirects to this portal.

The homepage was enhanced to include links to PRACE content on scientific and social media. Efforts to restructure the menus were undertaken to reduce the number of items displayed on the front page.

Currently all information on projects awarded by PRACE is available on the website via this route: Home page » HPC Access » PRACE Awarded Projects » Project Access Calls » PRACE Project Access-**x**th Call for Proposals (with a different page for each Call). This will be augmented (by the time of submission of this Deliverable) by an advanced search module, which will offer a more flexible interface to browse both the projects and their related publications.

A completely new module was developed to offer easy access to the results of projects from each Call for Proposals for Project Access. So far PRACE has had 14 Calls of which the projects are published with:

- Title of the project
- Call the project was awarded under
- Unique ID number of the project
- Leader of the project (principal investigator)
- Affiliation of the project leader
- Collaborators
- Research field
- Resources awarded (total and machine)
- Allocation start date and end date
- Abstract
- Publications (projects, talks, papers, and theses separately)

The page offered by the module provides listing projects of each call, and listing publications of each project. This allowed for an integration of the previously separate pages on the projects themselves and their scientific output. The available views are explained in Figure 7.
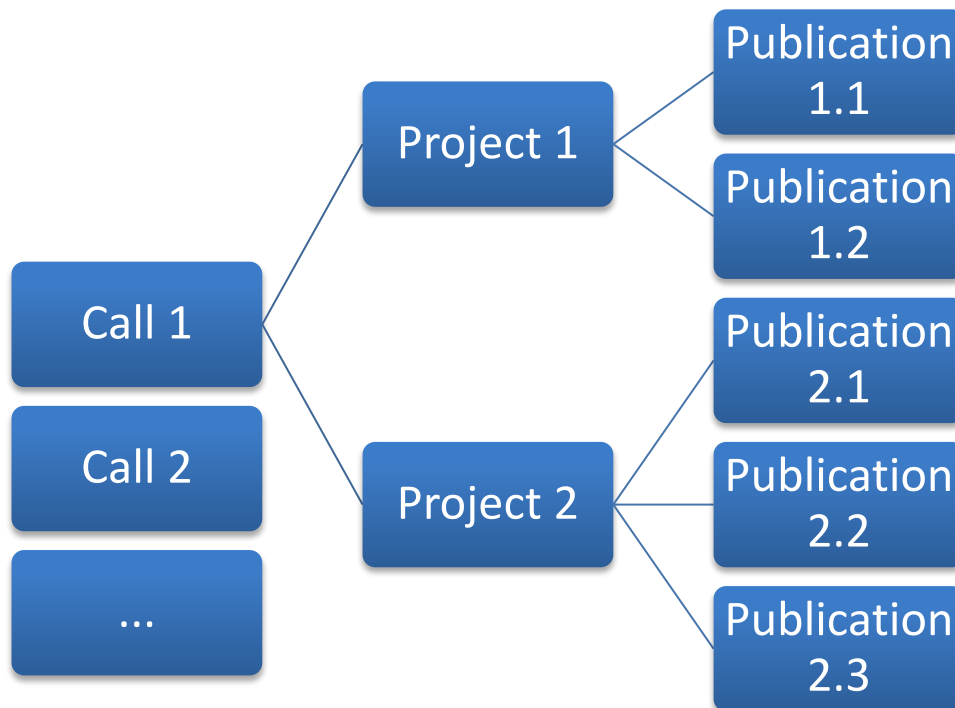
Figure 7 – Views offered by advanced result search module

Currently all information on projects awarded by PRACE is available on the website via this route: Home page » HPC Access » PRACE Awarded Projects » Project Access Calls » PRACE Project Access-xth Call for Proposals (with a different page for each Call). This will be augmented (by the time of submission of this Deliverable) by an advanced search module, which will offer a more flexible interface to browse both the projects and their related publications. The publication search page offers an interface listing projects and an overview of the publications in numbers. It includes a search bar allowing visitors to select to list publications of a selected call or search them by their principal investigator. The call identifiers and the names are automatically listed when typing into the search field.

Figure 8 – PRACE publication search and results page

The module stores result data in its own structured database, therefore requires the import of existing data. To automate the import process a separate module was developed to enable importing result data from Excel files of previous and upcoming calls through a separate administrative interface.

2.2   Scientific Publications

The objectives of the scientific publications sub-task is to showcase PRACE supported research results in order to disseminate news of PRACE activities and results, strengthen the PRACE brand and corporate image, foster a closer working relationship with researchers who use PRACE resources, and make a meaningful contribution to scientific literature resources.

Throughout PRACE-4IP, this has been accomplished by the publication of two PRACE Digest magazines and four stand-alone scientific articles on research that made use of PRACE resources. Two additional stand-alone articles were produced to highlight specific topics. Each edition of the PRACE Digest includes between 12 and 14 articles; a mix of PRACE Project Access projects and DECI projects. Publication dates are scheduled to coincide with major HPC events and exhibitions that PRACE participates in, in order to leverage these events for maximal distribution of the publications. PRACE Digests are scheduled for publication at the SC exhibition held in November each year in the USA and two of the six stand-alone articles will coincide with the annual ISC exhibition held in Germany in June/July.

For this task, the PRACE-4IP WP3 team works with INSIGHT Publishers [8] a specialist research dissemination agency that writes and publishes articles on a wide range of private and nationally funded research projects and large EC research projects across a broad spectrum of thematic areas. PRACE has a successful, long-term track record working with this agency and exploiting the full range of research dissemination services they offer for a variety of projects, including PRACE Annual Reports, the Women in HPC Magazine and more.

Stand-alone article 3

"*The Death of Galaxies*" Orianne Roos, CEA-Saclay, France, June 2016: distributed at ISC16 [9].

PRACE SUCCESS STORIES

The death of galaxies

When a galaxy stops forming stars, the remaining stars will slowly fade away and the galaxy will "die". But what causes this to happen? Orianne Roos has been simulating primeval star-forming galaxies to try and understand how winds from stars and supermassive black holes can couple to affect the gas content of the galaxy and its ability to form new stars.

The observable universe contains several hundred billion galaxies, including ours: the Milky Way. Galaxies are gigantic, mostly disk-shaped structures made of gas, stars, dust and dark matter and can be observed by collecting the light they emit.

Orianne Roos and her colleagues from the Astrophysics Department of CEA-Saclay have been looking to solve two key astrophysical problems: what physical mechanism makes galaxies suddenly stop forming stars, and why do numerical models create galaxies which are too massive compared to observations? Nowadays, telescopes such as the Very Large Telescope and the Hubble Space Telescope are so powerful that the details they are able to probe inside galaxies can only be explained by accurately modelling their internal physics with numerical simulations.

Such simulations are so complex that astrophysicists need advanced high performance computing (HPC) techniques to be able to execute them. With supercomputers like Curie and organisations like PRACE, astrophysicists now have the means to actually run these simulations. Roos wrote a proposal to look at whether supermassive black holes and stars are able to create outflows powerful enough to remove a substantial amount of gas from their galaxy and stop its star formation activity, and was granted 11 million core hours on the Curie supercomputer.

"A galaxy is "alive" as long as it is changing the gas it contains into stars. When the star formation process stops, the galaxy "dies", as its old stars slowly fade away," explains Roos. "In this research project, known as "POGO: Physical origins of galactic outflows", we focused on the physical mechanisms that are likely to kill galaxies."

Supermassive black holes found at the centre of most massive galaxies are a likely cause for the death of galaxies. Such black holes are so massive that they attract gas clouds and stars orbiting near the galactic center. As matter falls on the black hole, it becomes extremely luminous. The central region of the galaxy — its nucleus — is then said to be active, and is known as an active galactic nucleus (AGN). Gas surrounding the AGN is illuminated, heated, and pushed outside the galaxy. In principle, these outflows (or winds) can clear out the galaxy of its gas, suppressing star formation and therefore killing it.

Similarly, stars can also create galactic winds, though they are less powerful. Such stellar winds are slow galactic fountains that recycle the gas of massive galaxies, and are not able to remove gas from massive galaxies on their own. Lower-resolution simulations and theory predict that AGN and stellar winds strongly couple to each other, and give birth to ultra-fast outflows, able to blow away the entire gas content of the galaxy. The goal of Roos' project is to verify these theoretical arguments with very high-resolution adaptive mesh refinement (AMR) simulations. The typical size of the dark matter halo of a galaxy is 1 000 000 light-years, and the resolution of these simulations can go to five light-years.

"A galaxy is alive as long as it is changing the gas it contains into stars. When the star formation process stops, the galaxy dies"

Roos describes what her thoughts were before starting the project: "If the coupling between AGN and stellar winds is physical and ultra-fast outflows are created in our simulations, that would help to explain why galaxies suddenly die and expel their gas content. However, if wind-driving mechanisms do not strongly couple, and therefore do not create super-winds in our simulations, astrophysicists will have to find another culprit, i.e. another physical phenomenon able to stop star formation and starve a galaxy."

1

Figure 9 – 4IP Stand - alone article 3 - June 2016

Stand-alone article 4

This article is in the process of publication at time of writing this Deliverable, and will appear by 30 April 2017. The article features the work of Dr Matteo Dal Peraro, Ecole Polytechnique Federale de Lausanne, EPFL, Switzerland, on the "*Characterization of the bacterial membrane and its interaction with antimicrobial peptides*".

Stand-alone article 5

This additional stand-alone article was prepared on the work of Zoe Cournia, the winner of the inaugural PRACE Ada Lovelace Award for HPC (2016). This additional stand-alone article was prepared to follow up on the PRACE Digest 2015 themed "Women in HPC".

This article is in the process of publication at time of writing this Deliverable, and will appear by 30 April 2017. It will be highlighted at PRACEdays17.

Stand-alone article 6

This additional stand-alone article consists of an interview with Luna Backes Dault, who participated in the PRACE Summer of HPC 2013 (first edition) and the International HPC Summer School (2015), and who is now developing her career in HPC.

This article is in the process of publication at time of writing this Deliverable, and will appear by 30 April 2017.

PRACE Digest

PRACE Digest 2016 - Special Issue on HPC in Industry, November 2016: Distributed at SC16 [3].

Figure 10 – PRACE Digest 2016

2.3   Press

The goal of the Press sub-task is to produce press releases, newsletters, advertisements, brochures, posters and roll-ups to promote PRACE in the media and at events. It is divided into four sub-sub-tasks:

- Press Releases
- Newsletters
- Brochure, Posters and Roll-up
- Advertising

2.3.1 *Press Releases*

24 Press Releases were published in the reporting period as listed in Table 2. Each piece was published on the PRACE website, disseminated via the PRACE CRM system (Mailerlite [2]), disseminated via Alpha Galileo (a specialist media service that connects journalists and research organisations) [10] and/or ScienceNode (on online science publication with a HPC focus) [11] to editors of HPC specific publications such as HPCwire [12] or Scientific Computing World [13], where relevant. In addition, call notices (PRACE Project Access, DECI, and SHAPE) were disseminated via the PRACE CRM system (Mailerlite). To attract a more political audience, the editors of The Parliament Magazine [14] are also included in the dissemination (since February 2017).

#	Date	Full title
1	2016-04-04	PRACE 12th Call for Proposals Reinforces FET Flagship Projects
2	2016-04-11	SHAPE Third Call Selects Eight Innovative Projects from European SMEs
3	2016-05-02	Winner of the 1st PRACE Ada Lovelace Award for HPC
4	2016-05-18	PRACEdays16 concludes with ambitions met and raised
5	2016-06-23	PRACE Launches Fourth Call for Applications Under SHAPE
6	2016-06-29	PRACE Council elects new leadership
7	2016-06-30	PRACE @ ISC16 – Wrap up
8	2016-07-20	7th International HPC Summer School took place in Ljubljana, Slovenia
9	2016-08-30	2016 Annual HPCwire Readers' Choice Awards
10	2016-09-12	PRACE 13th Call for Proposals includes new Marconi system
11	2016-10-17	ICRI 2016: PRACE strengthened its International connections
12	2016-10-19	PRACE Autumn School: Modern HPC Development for Scientists and Engineers
13	2016-10-31	PRACE welcomes new Managing Director Serge Bogaerts
14	2016-11-07	Contracts Awarded in Third and Final Phase of Pre-Commercial Procurement (PCP)
15	2016-11-24	PRACE look back to a successful week at SC16
16	2016-12-10	PRACE Call 14 now open – More Systems, More Power, More Hours
17	2016-12-16	PRACE SHAPE 4th Call awards 4 new innovative European SME projects
18	2017-01-20	2017 International Summer School on HPC Challenges in Computational Sciences
19	2017-02-01	PRACE opens Tier-1 for Tier-0 service
20	2017-03-03	Nominations open for PRACE Ada Lovelace Award for HPC 2017
21	2017-03-13	PRACEdays17 Registration Open
22	2017-03-20	PRACE 2: growth in capacity for growth in excellence
23	2017-03-31	SHAPE 5th Call for Proposals Opens
24	2017-04-06	15th PRACE Call for Proposals for Project Access open until 30 May 2017 – Apply Now!

Table 2 – PRACE Press Releases

2.3.2 *Newsletters*

PRACE newsletters are periodic publications, which include the latest PRACE related news and events reported in an easily digestible format. Newsletters are published online [21].

Two newsletters were published in the reporting period: Newsletter #17 was published in June 2016 and highlighted at ISC16. Newsletter #18 was published in November 2016 and highlighted at SC16.

Figure 11 – Covers of Newsletter 17 and Newsletter 18

2.3.3 *Brochure, Posters, and Roll-Up*

A roll-up was produced and sent to each PRACE Member, for them to use at events and meetings to highlight their membership in PRACE.

One of the PRACE roll-ups was included in a promotional tweet of ELIXIR [14] for a course in co-operation with PRACE Member CSC, Finland (Figure 12).

Figure 12 – Tweet by @ELIXIRFinland on 4 April 2017

The PRACE Brochure and Posters were updated towards the end of PRACE-4IP with the latest information on PRACE 2.

2.3.4 *Advertising*

The objective of the advertising task is to highlight PRACE's offerings, promote PRACE's presence at exhibitions and conferences and to introduce PRACE to new audiences.

During the reporting period PRACE undertook the following advertising campaigns (in print):

- A half-page advertisement in the April/May 2016 edition of Scientific Computing World (SCW) highlighting PRACE and PRACEdays16, distributed at PRACEdays16;
- Full page in June/July 2016 edition of SCW, promoting PRACE activities at ISC16, which was distributed at ISC16;
- Full page in August/September 2016 edition of SCW, which promoted PRACE training activities;
- Full page in October/November 2016 edition of SCW promoting PRACE training and PRACE's presence at SC16, which was distributed at SC16;
- A half page in February/March 2017 edition of SCW promoting PRACE MOOCs;
- A full page in February/March 2017 edition of SCW promoting PRACEdays17;
- A full page (inside of front cover) in two editions (6 March and 20 March) of The Parliament Magazine, promoting PRACEdays17;

- A Facebook campaign to drive applicants to the SoHPC 2017 programme, February 2017.

The following advertisement is still to be published in PRACE-4IP:

- A full page in April/May 2017 edition of SCW pre-announcing PRACEdays18

Figure 13 – PRACE ISC16 ad (left), PRACE training ad (right)

In addition, to support the PRACE MOOCs, the advertising task prepared customisable logos for the courses.

Figure 14 – Customisable banner for PRACE MOOCs

Figure 15 – Customisable header for PRACE MOOCs

2.4   Social Media

The main objective of the social media sub-task in the period 1 May 2016 to 31 April 2017 is to follow on-going key activities:

- Publish and post regularly relevant information about PRACE (active dissemination):
  - Press releases
  - Announcements
  - Success stories
  - Single articles from Digest or Newsletter
  - Events
  - Videos
- Observe the activities on all social media platforms (passive observation)
- Analyse and create statistics about all activities (monitoring)
- Grow the community and generate more followers and readers
- Offer followers and readers valuable external content and share relevant information from PRACE-related institutions (content curation)

Channels

PRACE is present on following Social Media Channels – these were already investigated and chosen in Year 1 of PRACE-4IP:

- Twitter [15]

- YouTube (PRACE-RI) [16]

- LinkedIn [17]

- Google+ [18]

PRACE is also represented on the following platforms, which are social or scientific networks in a broader definition:

- Wikipedia [20]

- Science Node [11]

- Alpha Galileo [10]

Furthermore, PRACE Summer of HPC is present on Facebook [27] because of the specific target group (students).

The Social Media Team is working with the online tool Hootsuite [19]. Monthly statistical reports are generated and sent out to all work package members and also to WP2 of PRACE-4IP.

In the reporting period the following engagement on Social Media was recorded:

Twitter	• > 150 Tweets with > 520 retweets • Approximately 420 Twitter mentions • Increase in Twitter followers from 1 364 to 1 642
LinkedIn	• > 75 LinkedIn updates
Google +	• > 83 posts on Google+ with 22 photos
YouTube	• > 2 725 views on YouTube (PRACE-RI)

Table 3 – Social Media Statistics

Use case: Social Media Evaluation #PRACEdays16

For PRACEdays16 numerous supporting media activities were undertaken, e.g. announcements before (speakers, deadlines, etc.) and during the event (live posts, videos). The hashtag "#PRACEdays16" was used on all social media channels. After the event, various videos, social media posters, and posts to highlight the event's posters and presentations, were posted continuously. Special Social Media posters were produced to promote the video interviews with speakers and guests Figure 16. Thanks to all these activities, there was high-level engagement and a community growth on Twitter and LinkedIn.
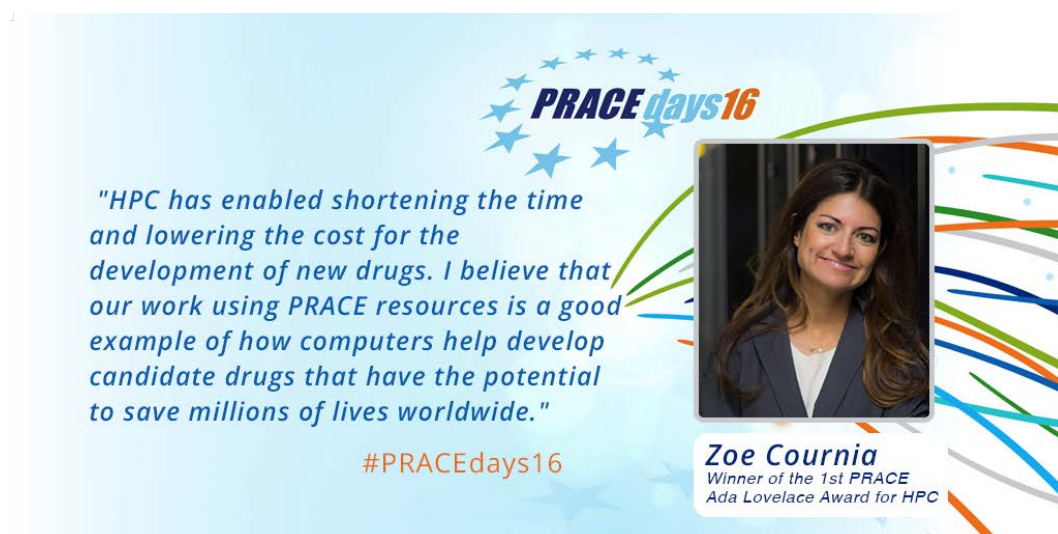
Figure 16 – Example of a social media poster from PRACEdays16

Statistics Twitter	
Unique Tweets including "#PRACEdays16"	144
Thereof posted by @PRACE_RI	59
Number of retweets	162
Number of Engagements	634
Number of participated Twitter Users	35
Number of Impressions	82 366
Number of URL clicks	147
Increase of followers May-September 2016	175

Table 4 – Statistics Twitter for PRACEdays16
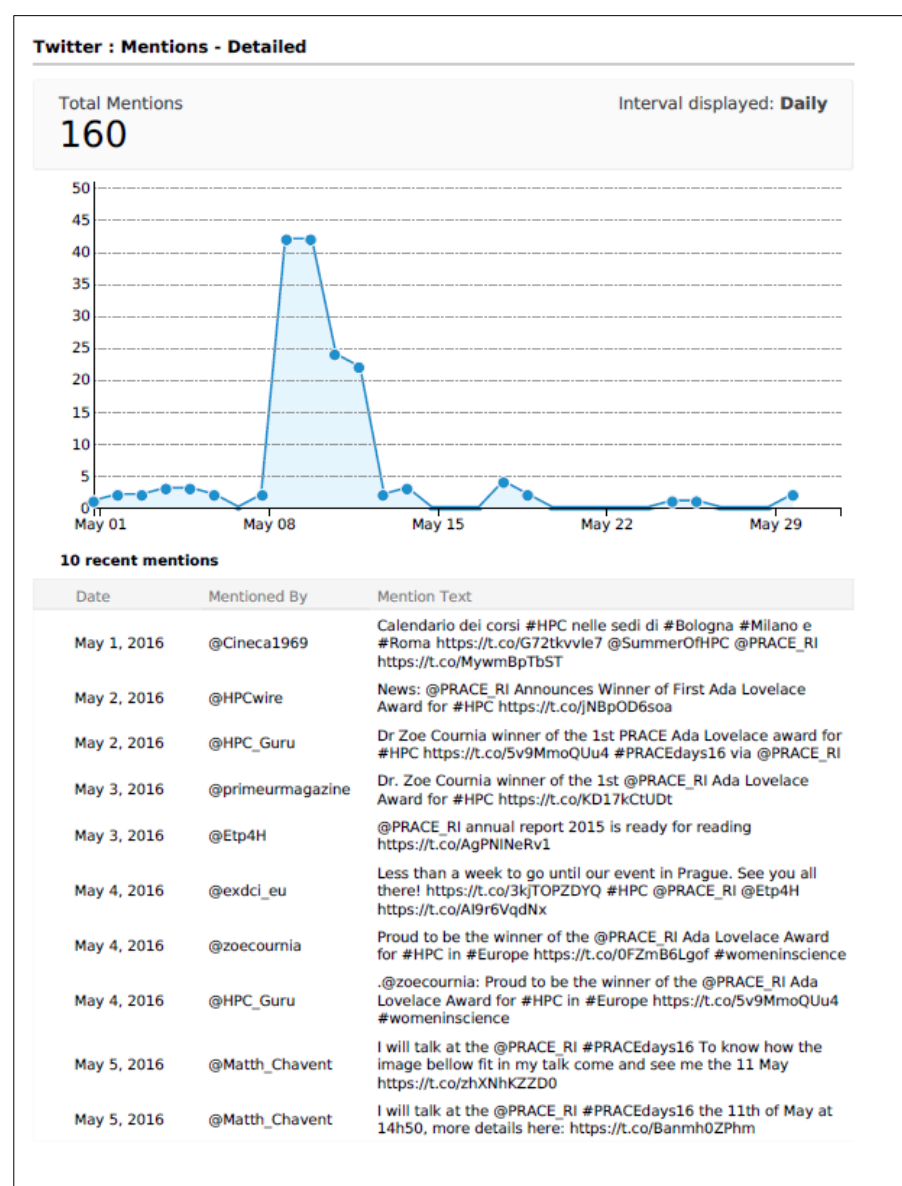
Figure 17 – Fast increase of mentions on Twitter between 10 and 12 May 2016

Statistics LinkedIn	
Number of Updates	40
Impressions	23 488
Clicks	186
Interactions	151

Table 5 - Statistics LinkedIn for PRACEdays16

Figure 18 – Screenshot of PRACE LinkedIn Company Page

2.5   PRACEdays16

PRACEdays16 was held from Tuesday 10 to Thursday 12 May 2016 in Prague, Czech Republic. More than 220 participants joined the plenary and parallel sessions for keynote presentations and discussions about and between science, industry and HPC.

In 2016 for the first time, PRACEdays16 became the centre point of the **European HPC Summit Week**, which started with a workshop organised by EXDCI on Monday 9 May, followed by a EuroLab4HPC workshop on Tuesday 10 May, and ending with an ETP4HPC workshop on Thursday 11 May.

The PRACEdays16 programme itself included 8 keynote presentations and 18 session talks that covered a range of HPC related topics from science and industry.

PRACE presented four Awards:

- Samet Demir of Istanbul Technical University received PRACEdays16 **Best Poster Award** for his poster entitled "*Computational design of hydrogen storage materials*";

- Niels Aage form the Technical University of Denmark received the PRACEdays16 **Award for Best Industrial Presentation** for his talk on "*Ultra large scale structural optimisation-topology optimized wing structure*";

- Matthieu Chavent of Oxford University took home the PRACEdays16 **Award for Best Scientific Presentation**. His talk was entitled "*Membrane Protein Crowding: filling the gap between computations and experiments*";

- The **PRACE Ada Lovelace Award for HPC** 2016 was officially presented to Zoe Cournia of the Biomedical Research Foundation, Academy of Athens (BRFAA), Greece.

Figure 19 – Group Photo from PRACEdays16

2.6   PRACEdays17 (preparation)

Just after the closing of PRACEdays16, the preparations for PRACEdays17 started. PRACEdays17 will be held from 16 to 18 May 2017 in Barcelona, Spain, and will be the central event of the European HPC Summit Week (15 to 20 May 2017), organised by the EXDCI project [34]. The PRACEdays17 event webpage is online on the PRACE Indico system [58].

2.7   General Events including SC and ISC

PRACE is dedicated to making the IP Projects´ results visible and transparent to our existing and prospective users and target audiences. Therefore PRACE aims to be present at the most influential HPC-focused exhibitions in Europe and in the United States.

Below is a list of major HPC events, where PRACE was present in the second year of PRACE-4IP.

International Supercomputing Conference (ISC) 2016

Figure 20 – PRACE booth staff at ISC16 in Frankfurt, Germany

The ISC High Performance Computing conference and exhibition congregates the major stakeholders of the HPC community in Europe. In 2016, ISC was held in Frankfurt, Germany, from 19-23 July.

The PRACE booth at ISC focused on informing the visitors on various activities of PRACE by offering multiple short presentations during the week. More than 245 people visited the PRACE booth to engage in interesting conversations about HPC and to gather more information about PRACE.

PRACE organised a half-day workshop aiming at initiating an open dialogue with the HPC ecosystem stakeholders on addressing the challenges and tackling the skills gap in HPC and Computational Science by providing a platform to discuss number of current issues. PRACE aims to intensify online training with its own MOOCs (Massive Open Online Courses) [26].

During the ISC Research Paper session Alison Kennedy, EPCC and Managing Director of PRACE between 1 October 2015 and 31 January 2017.presented the PRACE ISC Award 2016 to James Sokhum King on behalf of his team, including Thomas Gilray, Robert M. Kirby, and Matthew Might of the University of Utah, Salt Lake City, United States, for their paper entitled "*Dynamic Sparse-Matrix Allocation on GPUs*".

Project Information and Dissemination Event (PRIDE) 2016

Figure 21 – PRACE booth at PRIDE 2016 in Opatija, Croatia

MIPRO [39] is the largest non-commercial IT venue in the Balkan region, consisting of several conferences and exhibitions that attract over 700 participants each year. PRIDE is a supporting event of MIPRO that enables further dissemination of projects. In 2016, PRIDE was organised in Opatija, Croatia from 31 May to 3 June.

PRACE was present with a booth at the PRIDE exhibition, where other HPC-oriented projects (Fortissimo, Cloudflow, SESAME Net, etc.) promoted their activities. 2016 HPC forum highlighted the topic of HPC for SME advancement where Max Lemke, European Commission Head of Unit for Complex Systems and Advanced Computing, presented the vision of ICT for innovation for manufacturing in Europe. During the 4-day long PRIDE exhibition the PRACE booth received many visitors that were interested in access to PRACE HPC systems and overall activities undertaken by PRACE.

ICT Proposers' Day 2016

Figure 22 – Shared booth at the ICT Proposers' Day in Bratislava, Slovakia

The ICT Proposers' Day 2016 was held in Bratislava, Slovakia, on 26 and 27 September as a networking event promoting European ICT Research and Innovations and focusing on Horizon 2020. PRACE had a shared booth with other Research Infrastructures in the Excellence Village at the event. Participants at this event were interested in PRACE's work and visited PRACE booth to get more information.

International Conference on Research Infrastructures (ICRI) 2016

Figure 23 – PRACE booth at ICRI 2016 in Cape Town, South Africa

The International Conference on Research Infrastructures (ICRI) is a well-established international forum that enhances global networking and cooperation between stakeholders from all around the world active in Research Infrastructures. In 2016, ICRI was held in Cape Town, South Africa from 3 to 5 October. PRACE was present with a booth, and our experts welcomed participants who were interested in the European HPC Research Infrastructure.

Supercomputing Conference (SC) 2016

Figure 24 – PRACE booth staff at SC2016 in Salt Lake City, USA

The annual Supercomputing Conference is the most anticipated HPC event that brings together the international supercomputing community at a global level. The programme of the conference is internationally recognised and the number and wide range of exhibitors guarantee high numbers of visitors from all over the world. In 2016, SC was held from 13 to 18 November 2016 in Salt Lake City, Utah, United States. PRACE was there as an exhibitor, promoting the European HPC infrastructure. Several mini-presentations were held at the PRACE booth to highlight interesting topics like training, women in HPC, SHAPE and our Peer Review Process. Visitors had the chance to engage with PRACE on-site experts and widen their knowledge about PRACE's activities and the European HPC Research Infrastructure. We registered more than 500 visitors at the booth.

3   Brand, Image and Identity

Task 3.2, Brand Image and Identity aims to ensure that visibility of PRACE as the European HPC Research Infrastructure is strengthened through strong branding, and clear and consistent corporate image and identity. This task is designed to support the Research Infrastructure into its next phase, PRACE 2.

The task consists of four sub-tasks:

- Task 3.1 Corporate Identity Manual & Design
- Task 3.2 Promotional Material
- Task 3.3 Database Management
- Task 3.4 Transition Report

3.1.1 *Corporate Identity Manual*

A corporate identity manual or brand book is a set of rules and guidelines relating to the brand identity of an organisation and the communication of that brand. The proposed PRACE corporate identity manual was intended to consist of approved messaging including text, logos, slogans, images, colours, and style guidelines that reflect PRACE and the messages it wishes to convey to its stakeholders.

However, in response to the negotiation of PRACE 2 (internal notation for the continuation of PRACE's activities for the second phase of its development), it was established that refining and defining PRACE messaging and core imagery during the PRACE-4IP project was premature, as it is subject to change once PRACE 2 was agreed. PRACE 2 was concluded in March 2017 and efforts are undertaken to include as many updates as possible in PRACE-4IP. This work mainly pertains to publications and printed materials - such as posters, brochures, Fact Sheets- and the website.

As an alternative, in the previous reporting period a draft PRACE style guideline was produced which outlines guidelines for writing in "PRACE style" and outlines rules for using existing PRACE colours and visuals. A glossary of common HPC and PRACE terminology was also developed along with a word cloud. Several version of the word cloud are now under review to get to a final version for use on the website, at the PRACE booth at different events, on posters, on roll-ups, etc. The language guide is based on the EU English Style Guide [40] with some deviations specific to PRACE. Once refined and approved, this style guide was disseminated among the PRACE partners and is now being used to create and review texts and imagery issued by PRACE or in the name of PRACE.

For new visuals and standard imagery, an incremental approach has been adopted, as can be seen in the dissemination task (Chapter 2). Incremental changes to current designs have and will be made as needed and additional graphic design completed whenever a certain dissemination material or graphical asset (e.g. PRACE brochure, posters, etc.) needs updating. Component parts will be made available for future design tasks and in this way a library of more current imagery will be produced. This process of incremental changes will be augmented by requests for specific templates (e.g. Power Point slides) and will replace the initial plan to bundle all requests together and do a full tender for a suite of templates.

The outcomes will improve upon and enlarge the existing PRACE imagery and style guide.

Figure 25 –PRACE Word Cloud (example, not final)

3.1.2 *Promotional Material*

The goal of the promotional material sub-task is to order, store and supply appropriate high-quality give-aways and promotional materials for PRACE conferences, exhibitions and

outreach and training events. Key criteria for choosing the suppliers are: price, quality and delivery times. Promotional material is ordered, stored and shipped by the PRACE partners RISC Software GmbH (RISCSW) in Austria. Standard promotional materials (such as pens and USB keys) are always in stock and can be requested by the PRACE members. Specific promotional materials are ordered for special events in smaller amounts.

In the reporting period there were several re-orders of the standard promotional materials and separate orders for special items. For re-orders the supplier remained the same to guarantee the same quality. For special promotional materials, the best providers were found. For SC in the USA, local providers were chosen to avoid customs and shipping costs.

Figure 26 – Various PRACE Promotion Materials

Standard promotional materials	Special promotional materials for events
- Pens - Lanyards - USB sticks - A5 pads - Neck pillows - Cotton bags	- Bluetooth Headphones - USB travel sets - Travel Plugs - Carabiners - Mobile Phone Arm Holder - Binoculars - Notebooks - T-Shirts - Umbrellas

Table 6 – List of promotional materials

3.1.3 *Database Management*

The PRACE Customer Relations Management (CRM) system is used as a database to store contact details of people who have consensually provided their details to PRACE. The PRACE

CRM system has been in place since PRACE-1P and has continued throughout all PRACE Implementation Phase (IP) Projects.

The CRM currently stores the details of just over 11 000 contacts from all over the world. The table below identifies the number of contacts from PRACE Members and from other continents – where such data is available.

Country	Number of Contacts		Country	Number of Contacts		Country	Number of Contacts
Austria	17		Ireland	46		Switzerland	40
Belgium	40		Israel	17		Turkey	23
Bulgaria	9		Italy	414		United Kingdom	422
Cyprus	83		Netherlands	75		Other European Countries	130
Czech Republic	51		Norway	24		Africa	95
Denmark	19		Poland	26		Asia	457
Finland	143		Portugal	13		Australia	82
France	293		Slovakia	6		North America	799
Germany	579		Slovenia	11		South America	38
Greece	22		Spain	230		Country Not Available	6 965
Hungary	15		Sweden	62		**Total**	**11 246**

Table 7 – Contacts in the PRACE CRM

The contact details stored in the PRACE CRM system are gathered in various ways, with the majority of these collected at different conferences (such as ISC, SC and PRACEdays) and PRACE and PATC training events. The figure below shows the number of academic and non-academic contacts gathered throughout all SC and ISC editions that PRACE has participated in.
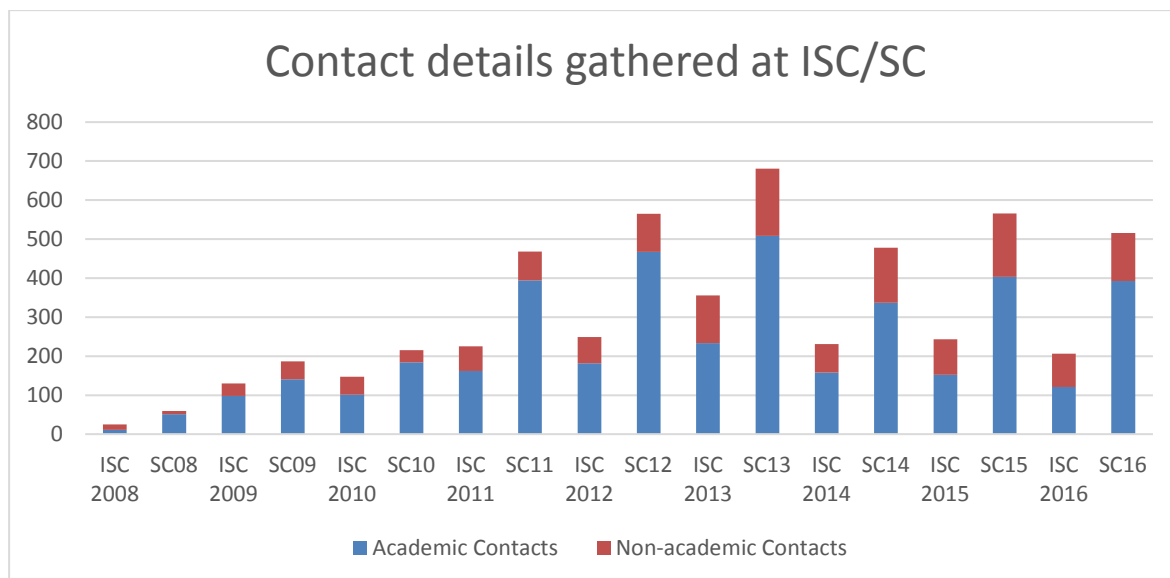
Figure 27 – Contact details gathered at ISC/SC

In this section we report on the PRACE Database Management activities carried out between 1 May 2016 and 31 April 2017.

During this period, the general work on and with the PRACE CRM system has continued in much the same manner as previous months and previous IP projects.

Specifically, during this time, the database of the PRACE CRM system was expanded with new contact details and updated with changed contact details. Outdated contact details were removed. Recipients of PRACE mailings via the CRM system can easily unsubscribe using a link at the end of each mailing.

Contact details that were updated or added to the CRM system included contacts gathered at conferences such as ISC, SC and other similar events such as the PRACEdays conferences. Contact details from training contacts who attended PATC training events and Seasonal Schools were also added to the PRACE CRM system.

The majority of the work in this task was the migration of the PRACE CRM from the SugarCRM [42] software system, to the Mailerlite marketing software system [2]. This migration was carried out so that a more modern software system could be used for PRACE database management and allow for more, better and easier to use functionalities to become available to this task.

The Mailerlite system was chosen after an extensive search of various types of software that are available. Initially, the software that was explored were Customer Relations Management (CRM) solutions, until it was confirmed that such a system is not really required for this project task. This is because CRM systems are mostly designed for salespeople and include more functionality than what Task 3.2.3 will ever require. After a clearer definition of our software requirements it was decided to focus on marketing software – as such systems would allow us to keep and maintain a contact database, be able to mass-mail our contacts and provide us with mailing statistics. After looking into various such solutions and evaluating their relative merits, Mailerlite was chosen as the software to use for this task. It is easy to use web-based software, functional and covers the requirements of this task.

The initial migration to Mailerlite occurred in July 2016 and included a two-month evaluation period. Since September 2016 Mailerlite has been the main software used for the PRACE database management task. During this two-month transition period both the SugarCRM and

Mailerlite systems were in place simultaneously to avoid a loss of data in case of unforeseen software problems.

Since then, Mailerlite has been used to maintain the PRACE contacts database and to communicate various PRACE-related news, e.g. the opening of PRACE Calls for Proposals for Project Access, PRACEdays17 announcements, etc.

3.1.4 *Transition Report*

The PRACE-4IP WP3 transition report task aims to provide documentation outlining critical information for PRACE-4IP WP3 tasks, which require curation and transfer across implementation phases of the project or to the PRACE aisbl should no subsequent implementation phase take place, for example social media accounts or web hosting information. This documentation has been collated into a Transition Report. As the PRACE-5IP project has been confirmed, this report has been made available on the projects' shared workspace and documentation repository, the BSCW, to inform the continuing tasks and task leaders in PRACE-5IP.

The Transition Report task was broken down into two phases:

1. Identification of relevant tasks and information in the WP
2. Production of documentation and collation into the Transition Report

In phase one, the following activities were determined to have a need for information curation and transfer across projects.

- Hosting and management information regarding the PRACE website now hosted at Centre Informatique National de l'Enseignement Supérieur, France (CINES), and Training Portal now hosted at Computation-based Science and Technology Research Centre, Cyprus (CaSToRC).
- Hosting and management information regarding the PRACE CRM system (Mailerlite) administered by CaSToRC.
- Access and management details of the PRACE social media accounts including HootSuite (currently managed by RISC)
- Project management information including budget, contacts & suppliers regarding the production of the PRACE Digest.
- Project management information including budget, contacts & suppliers for PRACE's presence at ISC and SC.
- Project management of PRACEdays – the PRACE Scientific and Industrial Conference
- Project Management of the PRACE Summer of HPC, currently managed by University of Ljubljana, department of Mechanical Engineering (ULFME), blog hosted by the Irish Centre for High-End Computing (ICHEC). As the PRACE-5IP proposal included moving the PRACE SoHPC from PRACE-4IP WP3 (current) to PRACE-5IP WP4, it was identified that a detailed SoHPC Manual including all information necessary to manage the programme should be produced.

In phase two, the transition report was produced. The SoHPC manual was provided as an annex to the transition report due to the requirement for a standalone guide for the programme. The following information was outlined in the Transition Report:

Website & Training Portal

- Details of hosting arrangement and security certification
- Information on the operation of the website CMS

- Details of administrator accounts on the website
- Information on integration of the website with other PRACE services i.e. PRACE events portal, PRACE CRM.

PRACE CRM

- User account and access information
- How to conduct the administration of the CRM
- Dashboard and menu overview
- Instructions on how to conduct a campaign, including A/B testing
- Instructions for updating/amending the subscriber lists
- Details on how to segment subscriber lists
- Instructions on how to produce web forms for subscription

PRACE Social Media

- Account information
- Guidelines on how to use social media in line with PRACE communications strategy
- Hootsuite management information
- Information on analytics services associated with accounts

PRACE Digest

- Supplier Contacts
- Budget requirements
- Description of production pipeline

PRACE presence at ISC and SC

- Supplier contacts
- Budget requirements
- Staff effort outline
- Information on PRACE promotional material including suppliers details

PRACEdays

- Budget requirements
- Recommendations for local organisation (location varies annually)
- Description of the activities of the Organisation and Programme Committee

SoHPC

- Recommended timeline for the programme
- Roles & requirements, including effort required
- Budget
- Social media & blog access and administration
- Site Selection process & guidelines
- Application process & guidelines
- Student Selection process & guidelines
- Information on how to organise the training week
- Information on how to support participants
- Blog moderation guidelines
- Awards adjudication process & guidelines
- Awards ceremony organisation information

It is anticipated that the Transition Report will be a useful tool for PRACE-5IP WP3 to introduce new team members to tasks and for PRACE-5IP WP4 to support them in the management of the PRACE SoHPC. It will also inform the corresponding task in PRACE-5IP WP3.

4 Outreach

The principal objective of the outreach task in PRACE-4IP is to enlighten the general public and the next generation of HPC users on the benefits of HPC and its ability to address society's grand challenges. It also aims to encourage the younger members of our society to work in the area of supercomputing.

These objectives are addressed through two sub-tasks:

- 3.3.1 Summer of HPC (SoHPC), divided into two editions:
  - o   Summer of HPC 2015
  - o   Summer of HPC 2016
- 3.3.2 General Outreach, divided into three further sub-subtasks:
  - o   Videos
  - o   Science Fairs and Museums
  - o   Fact Sheets

4.1.1   *Summer of HPC*

The PRACE Summer of HPC (SoHPC) outreach programme continues the successful SoHPC pilot programme started in 2013 and light edition of SoHPC 2014 completed in the no cost extension to the PRACE-3IP project. Each year the programme prepares projects at up to ten PRACE HPC member sites, which are completed by students under the mentorship of Project Mentors. Each site nominates a Site Coordinator who is responsible for the day to day running of the programme on site.

Summer of HPC projects are related to PRACE technical and other PRACE work with emphasis on visualisations that students may prepare as an outcome of each project. Attention is given to outreach aspects of the programme, which aims to introduce future engineers and scientists to HPC and its applications in the modelling and simulation of natural and man-made objects and processes, thus inspiring them to engage with HPC in their future careers. Outreach is conducted through social media activities and a blog on the PRACE Summer of HPC website [43]. Students contribute posts during the summer, while they complete their projects and attempt to engage their peers and the general public in discussion about HPC and its applications. Further outreach and interest in HPC is created through the PRACE HPC ambassador and best visualisation awards that are presented at the end of each year's programme. A training week is also provided to give participants an introduction to PRACE, HPC and visualisation. The goal of the SoHPC programme is to ensure a positive experience for all students and encourage them to become HPC users in future and by example show what can be achieved. Visualisations created by students are available to PRACE for further outreach and dissemination activities.

Summer of HPC 2016

The PRACE Summer of HPC (SoHPC) outreach programme continued 2016 edition with 21 students selected out of 110 applicants matching 21 projects [53]. Site coordinators at 10 hosting HPC centres arranged necessary travel itinerary for their students from home to training

week site and from there to hosting HPC site and finally, return at end of August to student's home.

Training week

The PRACE SoHPC training week introduces participants to HPC, PRACE and the SoHPC programme and provides training in HPC, outreach and visualisation. Team building is also an important part of the week.

Several proposals were received from PRACE members to host the SoHPC training week. Host selection though MB approved selection criteria and procedures was done by two members of the SoHPC coordination team. The FZJ HPC centre was selected for training week organisation.

Training week took place from 4 July to 8 July 2016 in Juelich with students (see group photo in Figure 28 arriving a day or two before and departing on Saturday to their hosting site. Training programme (available with slides on [56]) covered introduction to SoHPC and HPC with parallel programming and visualisation techniques. Access to HPC resources and wiki page for attendees were provided by FZJ trainers.

Figure 28 – SoHPC 2016 participants at Training week in Juelich, Germany. 4-8 July 2016

Social activities organised by the hosts at FZJ included gathering at the guesthouse where students were accommodated. Training in social media during the dense training week schedule assumed students working in pairs to interview each other for their first presence on SoHPC blog site [43].

Social Media and Blog Outreach

As the goal of SoHPC is outreach, there is a particular emphasis on social media and the blogs written by the participants. Participants are required to write at least three blog posts for the SoHPC website, which must highlight the project they are working on and the host site they are working with. Participants are encouraged to share this on their personal social media and it is of course promoted on the official SoHPC social media.
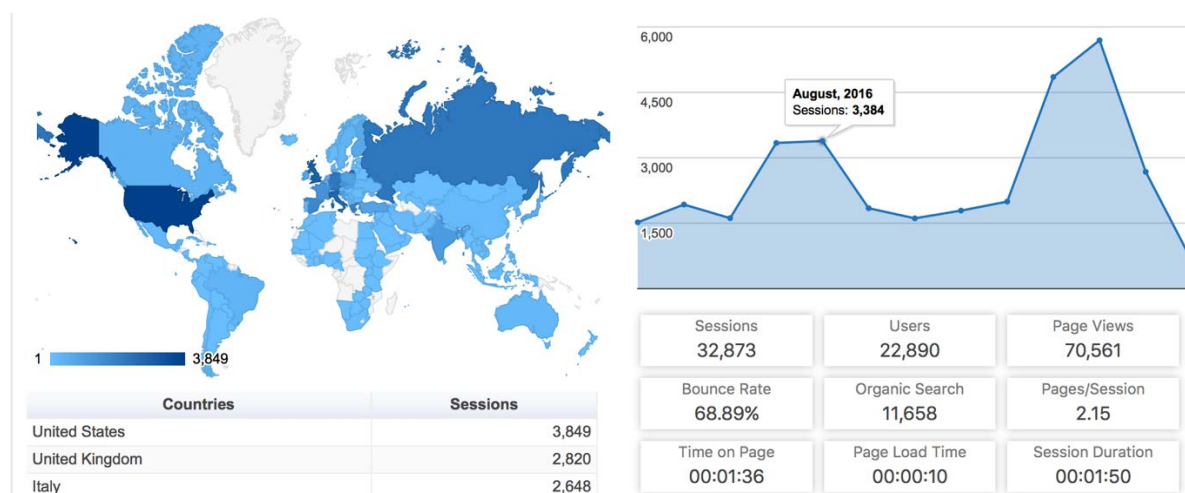
Figure 29 – Page views on SoHPC blog site per country (left) and sessions from April 2016-April 2017 (right).

As seen in Figure 29, most views are coming from US, then UK, Italy, Russia, Germany, Greece, Spain and France. Page sessions are most active during the summer and during the time when application are open in January and February (Figure 29 right).

Participants promote their activity though their Facebook and re-tweets from PRACE official @SummerOfHPC account [57] that received 1780 page follows so far.

At end of the summer students prepare videos that are posted on YouTube channel and are collected as a playlist [56] page. Videos, blog site and overall project impact are main points for award committee that selects two students for awards.

Award ceremony

The 2016 SoHPC Awards Ceremony was held on December 1 at CINECA, Italy. The winners were Anurag Dogra for visualisation award (who conducted his own project to CINECA) and Marta Čudova as HPC ambassador. Both students presented their experience at the event [57]. Both winners received €1500 towards attending a HPC related conference or training event, a SoHPC Award Trophy and Award Certificate.

Transition of the SoHPC programme to WP4

In PRACE-5IP the SoHPC programme is handed over from dissemination (WP3) to training (WP4) as many HPC sites are more easily involved with the hosting. SoHPC matured to high quality training programme with its goals for dissemination unchanged. SoHPC 2017 edition will therefore maintain broad presence in promoting the HPC career to its generation by example of HPC projects done during the summer.

Figure 30 – SoHPC 2016 winners at award ceremony in CINECA

4.1.2 *General Outreach*

PRACE General Outreach activities are mainly targeted at the general public, and at students and schoolchildren more specifically. Popular means of information, such as videos and Fact Sheets, as well as video games, are presented at HPC events, science fairs, via social media, and on the PRACE website.

Videos

Video is a powerful tool to deliver a particular message in communication or to raise awareness about PRACE and HPC in Europe. The main objectives of the PRACE video task 3.3.2 are:

- To bring knowledge about particular HPC topics to a large audience;
- To promote existing PRACE social media channels, especially the YouTube channel (and increase its views and subscribers);
- To promote PRACE outreach activities such as Summer of HPC and science fairs;
- To promote PRACE scientific results, with a special focus on industry.

All PRACE videos are posted on the PRACE YouTube channel [16]. YouTube provides an embedding functionality to place videos on webpages, in press releases, in the PRACE newsletter, on social media, etc., and offers an application to watch videos on all types of devices (laptops, mobile phones, tablets, etc.).

An internal working procedure was put in place to define responsibilities. This procedure covers the idea, the development and validation of the storyboard or script, the video recording and editing, and the final approval, up to the posting on YouTube. All videos were recorded and edited in collaboration with an external provider called Vision Communication [44]. This guarantees the consistency of the PRACE brand in all videos.

Title	Description	Video available
PRACE in industry	The promotion of the European HPC infrastructures in companies and its industrial applications is a key element for the future of HPC.	April 2017
Interview of Luna Backes	This interview will try to promote the PRACE Summer of HPC 2017 edition in order to encourage students to apply and promote the scientific careers.	April 2017
Science fairs and museums	All outreach tasks summarised in a single video.	April 2017
Training video	The aim of this video is to promote all training activities where PRACE plays an important role.	April 2017
PRACEdays17	The promotion of this event is essential as it is the flagship conference for PRACE.	May/June 2017

Table 8 – PRACE Video Plan

Between 1 May 2016 and 31 April 2017, the following videos were developed:

Title	YouTube link
PRACEdays16 (24 videos) • 19 single interviews • 1 summary video • 1 warming up video • 3 daily snapshot videos	https://www.youtube.com/playlist?list=PLfDqbLv1vSqjg2r9S9DY9nMPfdH5nSoFm
PRACE Summer of HPC 2016 at BSC	https://www.youtube.com/watch?v=HgnyzA4LfD0&t=3s

Table 9 – List of PRACE videos created during the reporting period

PRACEdays16 video campaign

The major video campaign during the reporting period covered PRACEdays16 in Prague, Czech Republic. All videos recorded during those days were uploaded on a separate reproduction list called "PRACEdays16" [32] that contains 24 videos. The team involved can be summarised in the image below:
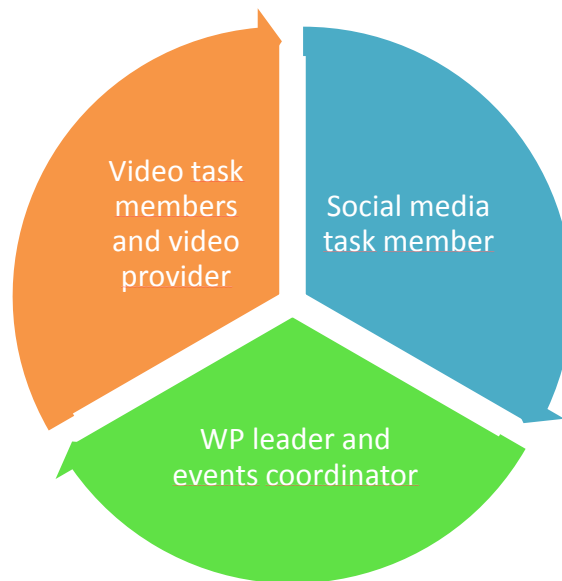
Figure 31 - PRACEdays16 videos team

The video campaign was carefully prepared and planned jointly with the Social Media and Events Teams as there were various tasks to be done before, during and after the event:

- Daily snapshot videos to give an overview of each day uploaded to the YouTube channel and promoted via Twitter;
- Interviews with keynote speakers and PRACE guests;
- A summary video after the event promoting next year's edition.
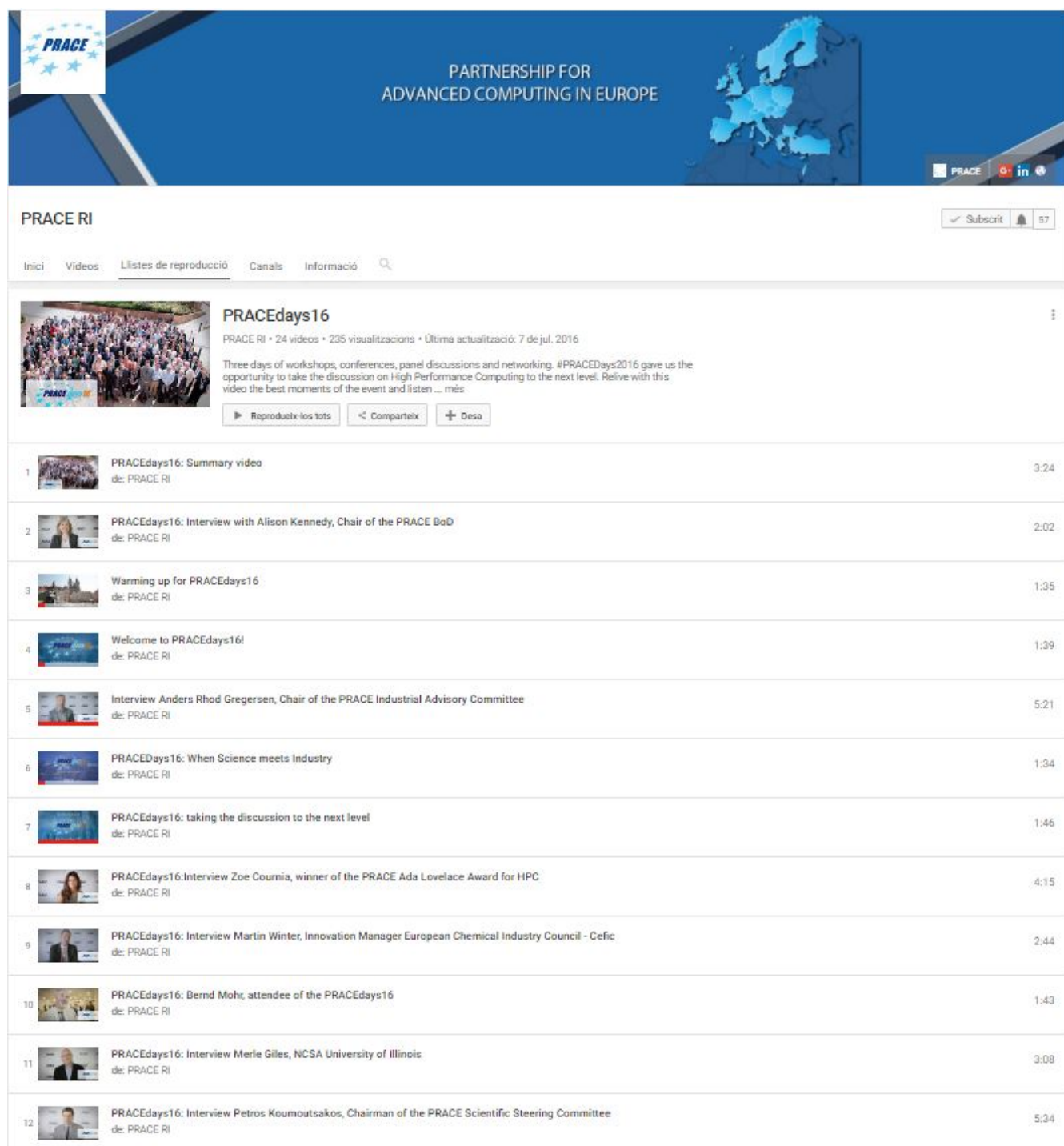
Figure 32 – Image of PRACEdays16 playlist on PRACE YouTube channel

In close collaboration with the Social Media Team, all videos were carefully prepared for the Twitter and LinkedIn channels by creating social media posters with key messages of each interview. The videos during the PRACEdays16 created will also be re-used to promote other topics such as, for example, PRACE call or the PRACE SHAPE programme.

Figure 33 – Image of PRACEdays16 banner on Twitter

In summary, this campaign has been extremely successful in order to reinforce PRACE's brand as a European Research Infrastructure. Following also the trend in digital communication of giving more relevance to video marketing campaigns and promoted via social media, the videos task will be continued and further developed in PRACE-5IP.

Digital Day 2017

The European Commission requested a special video made to support the HPC session during the 2017 Digital Day on 23 April 2017, which also commemorated the 60th anniversary of the Rome Treaty. The video was shown during the plenary session of the event and uploaded on the PRACE YouTube channel [52].

Science Fairs and Museums

The aim of the sub-task Science Fairs and Museums is to engage the younger generation (students and schoolchildren) and to draw their attention to science and research with a focus on scientific computing. The events were organised and/or participated in locally by the Members of PRACE.

Science fairs attended

- Colours of Ostrava, 14-18 July 2016, Ostrava, Czech Republic
- EUCYS 2016, 16-19 September, Brussels, Belgium
- Researchers' Night, 30 September 2016, Ostrava, Czech Republic
- University Open Day, 10 November 2016, Ostrava, Czech Republic,
- BT Young Scientist and Technology Exhibitions, 12-14 January 2017, Dublin, Ireland

Colours of Ostrava, Ostrava, Czech Republic

Every July the city of Ostrava in the Czech Republic is enlivened by the music festival Colours of Ostrava. Each year the festival is visited by around 40 000 visitors of all ages. 2016 was the

first year that IT4Innovations was invited by the city of Ostrava to exhibit within the "relax zone". An island of science and technology was created surrounded by the sea of world music. For four days (14-18 July) IT4Innovations presented PRACE, HPC, and supercomputers to a very colourful and diverse audience. Two students who were spending their summer in Ostrava for the PRACE Summer of HPC programme (Gözde Sarikaya and Alejandro Rodriguez Segrelles) were present as well promoting the programme and PRACE. The car racing game **ParallelRACE** – developed at IT4Innovations by Summer of HPC students Nicola Luminari and Michael Weber – formed an attraction to crowds of all ages.

Figure 34 – Gozde Sarikaya participant of the Summer of HPC 2016 at the Colours of Ostrava with visitors at the booth

European Union Contest for Young Scientists 2016, Brussels, Belgium

During the final event of European Union Contest for Young Scientists 2016 (EUCYS), from 16-19 September, PRACE presented HPC and the Research Infrastructure to the participating students as well as to visitors from the general public and schools at a booth. PRACE became a partner in EUCYS 2016 and supported the event with a PRACE Award. The winners of the award were invited to the IT4Innovations National Supercomputing Center for a week-long visit during which they had the chance to experience the atmosphere of the supercomputing centre, see the supercomputers and how they are operated, as well as interact with researchers from different fields such as engineering or nanotechnology. The visit took place from 21 to 25 November 2016.

Figure 35 – Students the winners of the EUCYS 2016 in Brussels Belgium

Researchers' Night 2016, Ostrava Czech Republic

This event was organised in various places all over the Czech Republic and IT4Innovations participated for the first time. The centre welcomed more than 420 visitors. Together with the presentation of the centre's infrastructure and research activities, its participation in the PRACE IP Project was also promoted. The booth dedicated to PRACE was both informative and entertaining. The two games developed for PRACE (**ParallelRACE** and **Shooting Stars**) were used to demonstrate what research can do using supercomputers.

Figure 36 – PRACE booth at the Researcher's Night at IT4Innovations in Ostrava, Czech Republic

<u>University Open Day 2016, Ostrava, Czech Republic</u>

The University Open Day is a traditional event organised by the VSB - Technical University of Ostrava. IT4Innovations as one of the organisational units of the University takes part every year. Around 1 200 school children and students visit the event each year. Within the booth organised by IT4Innovations, the HPC, supercomputers and scientific projects solved using supercomputers were presented. For the promotion of PRACE the interactive game **ParallelRACE** was used.

Figure 37 – Visitors of the University Open Day in Ostrava, Czech Republic

<u>BT Young Scientist and Technology Exhibition 2017, Dublin, Ireland</u>

Building on the success of PRACE's presence at previous BT Young Scientist and Technology Exhibitions (BTYSTE), PRACE in conjunction with Irish partner ICHEC once again showcased the power and relevance of High Performance Computing to thousands students and of members of the public at the RDS, Dublin. With over 59 000 people in attendance, and over 500 student science projects presented, the BTYSTE was an excellent opportunity to engage the next generation on the topic of HPC. During three jam packed days (12-14 January 2017) visitors had the opportunity to explore demonstrations of remote sensing enabled by satellite images and HPC, a 360 virtual reality tour of the Irish national supercomputer 'Fionn', a medical imaging demonstration powered by cutting edge HPC technology, and an exhibit and interactive quiz on the scale of data.

Figure 38 – Visitors at the joint ICHEC and PRACE booth at the BTYSTE

Video Games

Video games are used at science fairs to attract schoolchildren to the PRACE booth and teach them in a playful way the possibilities of a supercomputer, with the aim to inspire them to pursue a career in science and HPC.

The Dare to Think the Impossible portal [45] developed under the PRACE Second Implementation Phase (PRACE-2IP) project, was updated with the most recent information on PRACE, and photos of the newest machines of the PRACE Hosting Members. Updating the page is a non-trivial task, as it was originally developed in HTML and is not integrated into the WordPress CMS, which offers a more intuitive user interface.

A new video game dubbed "PRACE Mars Mania" was developed. It is based on the research of Minna Palmroth into space weather and the Vlasiator hybrid-Vlasov simulation code [46].

Figure 39 – Example of the look of the Video Game "PRACE Mars Mania"

PRACE Fact Sheets

In PRACE-4IP a new task was added to the already existing list of communication and dissemination activities. It was foreseen that during the first 12 months of the project, 6-8 Fact Sheets would be produced. Following this plan the work was divided into two phases: first to produce the first set of most urgently required four Fact Sheets and once those were finalised to prepare the second set of Fact Sheets according to new or existing needs.

The first set of the Fact Sheets included the following topics:

- What is PRACE?
- What is HPC?
- PRACE in Numbers
- PRACE for Society: How HPC helps you

The topics were agreed beforehand, so the work on drafting the text started immediately. Once a broad consultation and approval of WP3 members had taken place, the graphic design was prepared by an external company. After additional comments and feedbacks, the Fact Sheets were finalised and approved by PRACE Project Management Office (PMO) and Board of Directors (BoD) at the end of 2015. In January 2016 the four documents were published on PRACE website [59].

While finalising the first set of Fact Sheets, the work on the second set started already. Based on the needs and requests it was agreed that Fact Sheets on the following additional four topics would be produced:

- PRACE for Industry
- PRACE Training and Education
- PRACE Success Stories
- PRACE Summer of HPC

By the end of January 2016 the text of all the remaining four documents was finalised and consulted with members of WP3 and WP4 (regarding training and education) and with external experts and project's PIs (regarding success stories and project examples). In February and March 2016 the text went through very thorough proofreading as well as PMO and BoD approval. Finally, the external company proposed a graphic design and included the narratives in the appropriate layout.

Figure 40 – The PRACE Fact Sheets: "What is PRACE?" and "PRACE for Society"

All Fact Sheets were published on the PRACE website. From January 2016, each PRACE partner could request printed versions of those documents for all PRACE events, workshops, schools or conferences. Print-ready files were made available via the BSCW document system.

During the remaining months of PRACE-4IP, the Fact Sheets will be updated with the most recent information on PRACE statistics (PRACE in Numbers) and PRACE 2 (What is PRACE).

5 Conclusions

The results from the last twelve months of PRACE-4IP WP3 have been outlined in this deliverable.

WP3 has successfully communicated the results of the PRACE-4IP project, promoted and publicised the activities and outputs of PRACE through press releases, news articles, a digest magazine, presence at high-profile events, such as ISC16, ICRI 2016, SC16, and PRACEdays16, and improvements to the performance the PRACE website, as well as the look-and-feel of the homepage.

PRACE have engaged in successful outreach activities including the 2016 edition of the Summer of HPC, presence at five science fairs, and the production of promotional videos and a new video game.