



034115

PHOSPHORUS

Lambda User Controlled Infrastructure for European Research

Integrated Project

Strategic objective:
Research Networking Testbeds



Deliverable reference number: D.7.1.4

Annual Report in Raising Public Participation and Awareness

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Dissemination Level

PU	Public	✓
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	



Annual Report in Raising Public Participation and Awareness

Abstract

This deliverable provides a comprehensive report of the effort the consortium has made to ensure external visibility of the PHOSPHORUS project. It reports on the actions taken to make the results of the project known to the public and the relevant stakeholders, and to encourage participation in the project. This is a living document that will be updated during the duration of the project.

This is the second release of the deliverable, Annual Report in Raising Public Participation and Awareness. The final release is expected in M30.

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0 Executive Summary

The intention of the PHOSPHORUS consortium is the dissemination of its existence and results within Europe and internationally. This deliverable, together with “D7.1.2: Plan for Using and Disseminating the Knowledge” and “D7.1.3: Annual Report on Disseminating Activities”, present a complete analysis of the all activities and the efforts of the consortium to raise participation and awareness of the PHOSPHORUS project.

Section 1, **Introduction**, gives a brief overview of the deliverable and introduces the strategy applied by the PHOSPHORUS consortium in raising public awareness and participation.

Section 2, **Implemented Actions**, details the actions accomplished during the year to increase public participation and awareness. It separately analyses the actions that were directed towards the scientific community and the general public.

Section 3, **Future Plans**, presents the steps that will be taken in the future to raise public participation and awareness. The actions presented in this section are those that have been decided upon. During the year, more actions may be organised.

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1 Introduction

From the start of the project, PHOSPHORUS acknowledged the importance of publishing results openly as much as possible. The PHOSPHORUS project expresses this as its ultimate goal which is to disseminate procedures, toolkits and middleware to EU NRENS and their users to enable authorized end-to-end dynamic service provisioning across Europe and worldwide heterogeneous network infrastructure. The knowledge achieved within PHOSPHORUS is accessible to the public through deliverables, publications, presentations and informational material. This ensures that the project and its results are disseminated as widely as possible. Where restrictions on access to information exist, this is only done to protect data considered sensitive by the project partners.

PHOSPHORUS has also developed its website. Recently, the public forum was re-introduced to promote interactions and discussions among interested public in the areas of interests covered by the project. Partners in the PHOSPHORUS consortium have liaised with other projects to promote its research in enabling on-demand end-to-end services across multiple domains.

1.1 Overall Strategy in Raising Public Participation and Awareness

To successfully raise public participation and awareness, the strategy applied by the PHOSPHORUS consortium was to group the dissemination into two types of audience:

Scientific Community represents scientific users who are not in direct liaisons with the PHOSPHORUS research community but who will benefit from the knowledge and results achieved from the project and use the knowledge acquired to perform research and to participate in other European and International projects.

General Public represents members of the public who do not fall under the class of scientific community. At present, this mainly includes students in high school and universities with an interest to PHOSPHORUS relevant technical areas. Effective dissemination and exploitation is ensured through the set-up of a project website. The website contains all unrestricted information on the results, demos, its achievements at international conferences and in journals and the official presentation of PHOSPHORUS. Its participation in the organization of public workshops and presentations at exhibitions is available in the public section of the website. Information is also propagated to the general public through brochures and posters.

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2 Implemented Actions

This section describes the actions implemented during the year by the PHOSPHORUS consortium to increase public participation and awareness. The results of the project have been presented in many conferences, workshops and exhibition and have been introduced to a large scientific community. The website, created early in the project, provides access to the general public to find out about the project, its aims and access its public deliverables. The dissemination directed to the scientific community and those directed towards the general public are detailed below.

2.1 Scientific Community

This section presents information about conferences, links with other projects, and events organized by partners of the PHOSPHORUS consortium.

2.1.1 Events Organised

The PHOSPHORUS website includes a link to an 'Events' section which details a list of related activities. The section is constantly kept up to date. Links to the website of all reported events are provided in this area as well as links to a detailed section of each event within the PHOSPHORUS website. This detailed section includes a link to all public presentations and papers presented at the event.

During the first 18 months, PHOSPHORUS participated in 49 workshops, meetings and conferences [1], co-organised one workshop and organised one session as described below.

2.1.1.1 *Networks for IT: A new opportunity for optical network technologies at ECOC2007*

The workshop, "Networks for IT: A new opportunity for optical network technologies" was co-organised with e-Photon-One. It was chaired by Dimitra Simeonidou (dsimeo@essex.ac.uk) of University of Essex. Co-chairs for the event were Mario Pickavet (mario.pickavet@intec.ugent.be), Ghent University – IBBT, Anna Tzanakaki, (atza@ait.edu.gr), Athens Information Technology and Ioannis Tomkos, (itomkos@ait.edu.gr), Athens Information Technology.

The workshops stemmed from the well known realization that networks increasingly deal with managing and adapting distributed computing and associated data management resources (PCs, servers, supercomputers,

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clusters) and storage systems. Its aim was to address a paradigm shift in the optical network architecture that may be needed to enable dynamic and distributed IT services at large scale. This workshop offered a unique opportunity for optical network researchers and practitioners to give their views on the impact of the optical network architecture on each part of the end to end service delivery and on the interoperability of public and service provider networks of all kinds. In addition to invited paper presentations, the workshop provided an intimate setting for discussion and debate.

2.1.1.2 BoF session on "Delivery of Network Services across Heterogeneous Optical Domains" at SC06

University of Essex organised and chaired a BOF session, GHPN/GLIF: Delivery of Network Services across Heterogeneous Optical Domains, in SuperComputing2006.

The BOF discussed solutions provided by the three research projects: PHOSPHORUS (EU), EnLIGHTened (US) and G-Lambda (JPN). All three projects are concerned with interoperability issues between heterogeneous network domains. The BoF targeted wider community awareness and participation in the main common technical challenges concerning these projects.

2.1.2 Publications in Journals and Conferences

To date, PHOSPHORUS has published 30 papers and posters in journals and conference/workshop proceedings [1]. The papers cover all aspects of PHOSPHORUS project in the areas of GMPLS control plane and architecture, GRID job routing algorithms, QoS-aware resource scheduling, optical networks and lightpath monitoring and provisioning. At present, one journal paper has been accepted for publication but has not yet been published.

2.1.3 Presentations at Meetings and Workshops

PHOSPHORUS consortium partners have, during the year, given 21 oral and poster presentations at various meetings and workshops [1]. Of these, four presentations were informational presentations on the PHOSPHORUS project. The others cover all aspects of the PHOSPHORUS results, as indicated in the previous section.

2.1.4 Public Demos and Exhibitions

During the year, the partners of the PHOSHPORUS consortium gave 8 demos and organised 7 booth exhibitions [1].

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2.2 General Public

This section presents the informational material used in the advertising the PHOSPHORUS project to members of the general public.

2.2.1 Website

A website was developed to act as a platform for public outputs such as publications, public deliverables, and public standardisation drafts. It is the main means for dissemination to the general public. The website presents a brief summary of the PHOSPHORUS project, all events that have taken place since the start of the project, a news section and a comprehensive contact details list of all partners involved in the project. The final structure of the website is detailed below along with a short description for each section and audience targeted.

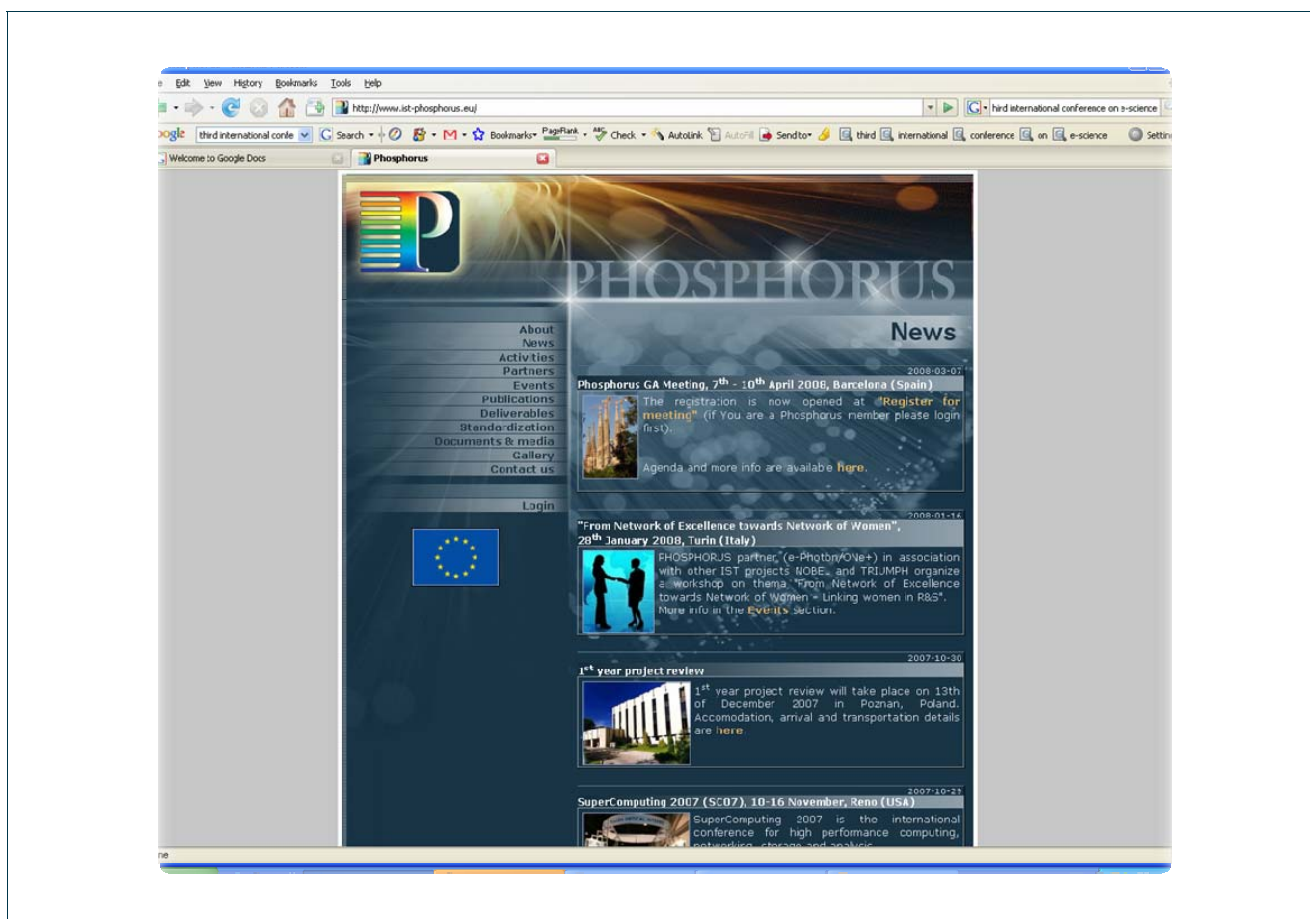


Figure 2.1: Homepage of the PHOSPHORUS website

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The homepage, which is depicted in figure 1 above, has direct links to:

- About
- News
- Activities
- Partners
- Events
- Publications
- Deliverables
- Standardisation
- Documents and Media
- Gallery
- Contact Us
- Login

The homepage opens up to the *News* section where up-to-date news related information concerning the project can be found.

In the *About* section, the general public is presented with a brief but concise summary of the project. The *Activities* section gives a comprehensive overview of each major activity and work-package. The *Partners* section provides links to the website of all participating partners in the project. Various announcements of related activities are detailed in a dedicated page for *Events*. The page presents links to the website of each event presented. A link to a more detailed webpage within the PHOSPHORUS website which contains more information and all publicly accessible documents is also provided.

The *Publications* section will include all publications presented in various conferences attended by the PHOSPHORUS partners. The *Deliverables* section lists all public deliverables submitted to the EC along with links to each deliverable. The *Standardisation* section presents a concise report of all standardisation activities the consortium actively participates in. The *Documents and Media* page lists all publicly accessible documents such as co-operation agreements and the PHOSPHORUS video along with links to the documents. Finally any interested member of the general public can contact the coordinator of the project through the *Contact Us* section for any further information. The contact details of the Project Coordinator which includes his email and phone number details can be found here.

The website also a *Login* section restricted to Phosphorus members, which permits collaborations within the group and a link to the official Phosphorus Wiki.

The interest that the project has raised can be reflected within the figures. Figures 2 and 3 below present some indicative statistics from the website visits throughout the year. Figure 2 shows the statistics for the past year (1550 visits per month on average).

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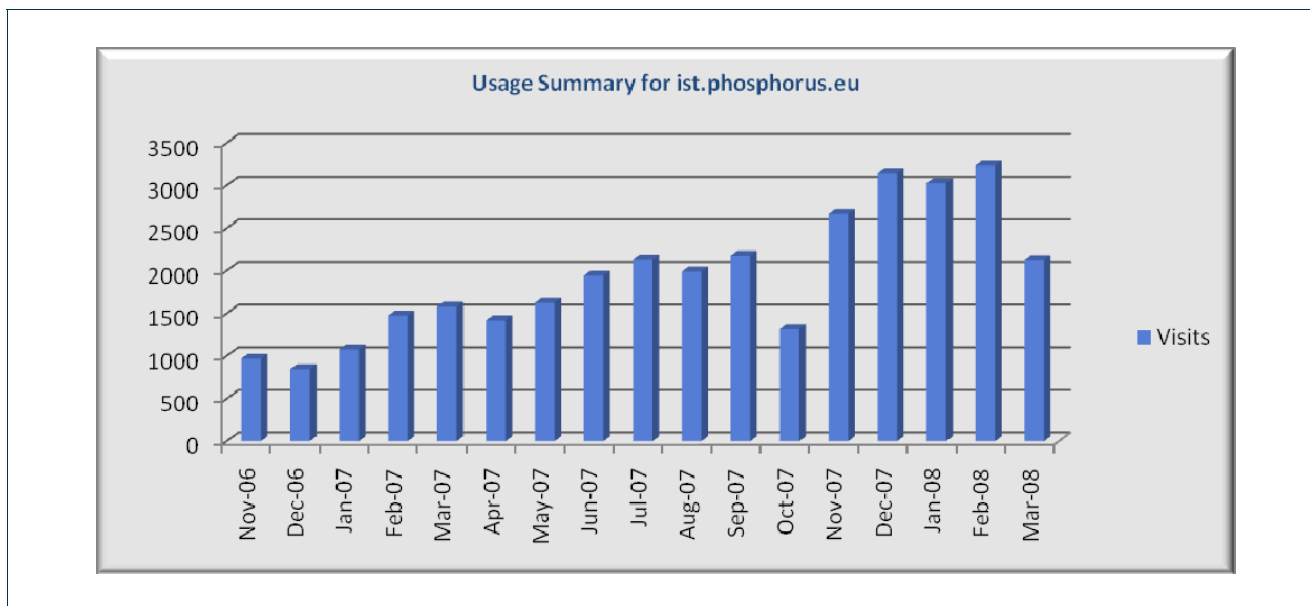


Figure 2.2: PHOSPHORUS website usage statistics until M18

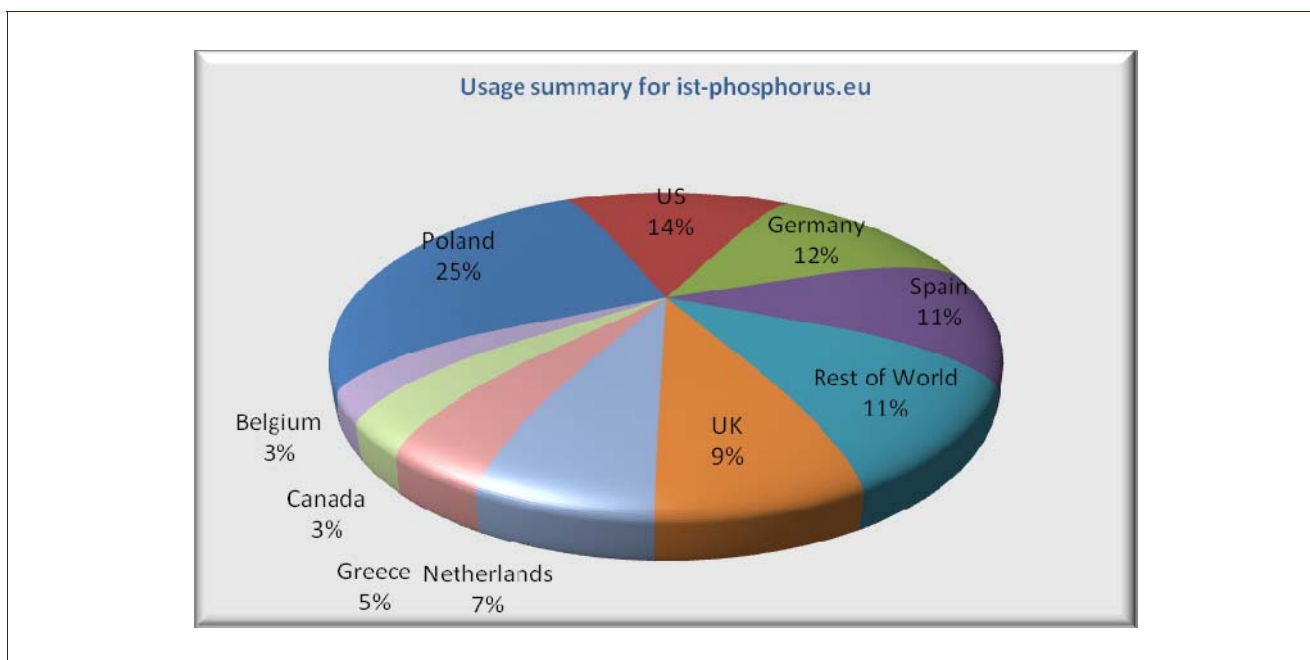


Figure 2.3: PHOSPHORUS website statistic by location of visitors

The website will continuously be updated during the lifetime of the project. It can be accessed through <http://www.ist-phosphorus.eu>

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2.2.2 Project Brochure, Poster and Briefcase

An official PHOSPHORUS project wall poster template was prepared and printed by Poznan Supercomputing and Networking Centre (PSNC). It outlines the objectives, architecture, testbed, partners and the projects contact details. A detailed version of the poster details the collaboration between the EnLIGHTened, G-Lambda and PHOSPHORUS project. It presents the objectives, architecture and brief summary of each project. The posters have been distributed to all members of the PHOSPHORUS consortium for display in their companies and universities. The poster is also presented at the events PHOSPHORUS participates in.

A brochure, one page for each work-package, was prepared by PSNC. It presents a detailed summary of the project objectives and the objectives and activities of each work-package. A summary of the PHOSPHORUS project, its objectives, technical approach and expected results are outlined in a PHOSPHORUS pamphlet / briefcase prepared by PSNC.

Other information materials prepared by PHOSPHORUS include white T-shirts, labels and stickers and sweets with the PHOSPHORUS logo on it.

2.2.3 Public Documents

Public documents and deliverables are made accessible in the *Documents and Media, and Deliverable Sections* of the website. These sections include cooperation agreements with NRENs, the official PHOSPHORUS presentation and all publicly accessible deliverables. Other documents that are publicly available on the website include presentations and talks given at PHOSHPORUS organised workshops.

2.2.4 Public Events

2.2.4.1 Gender Issues Workshop

A Gender Issues Workshop, held under the umbrella of The Network of Excellence (NoE) e-Photon/ONE+ project was co-organised and supported by PHOSPHORUS. The workshop which was well attended by both male and female partners was organised to highlight the concerns of the European Union on the extremely high under-representation of women in scientific careers. The main point on the agenda was based on the theme: "From Network of Excellence towards Network of Women - Linking women in R&S". Participants at the event engaged in discussions about facilitating the development and support of female scientists. The workshop was held in Politecnico di Torino (Turin, Italy) on the 28 of January 2008. During the workshop, partners from numerous supporting IST projects such as NOBEL and TRIUMPH had a chance to collaborate on this issue and be introduced to the developments of the PHOSPHORUS project.

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2.2.4.2 Visits from Secondary/College School Students to PSNC

PSNC offers a constant opportunity for students to see PSNC from inside. They are invited to visit Supercomputing and Networking rooms, PIONIER Network Operational Centre and places where PSNC researches from various projects are working and have meetings.

The visitors had possibility to meet the people involved in the PHOSPHORUS project and see the PHOSPHORUS testbed devices. They also had been briefly introduced to PHOSPHORUS project. Some PHOSPHORUS posters and many brochures with details about the project were available.

Summarizing in last year there were 166 students visit PSNC premises.

Visit Date	School name	School localization	School type	Number of students
28 March 2007	School of Informatics and Internet	Poznan	Technical College	11
12 April 2007	School of Economics	Srem	Secondary School	30
18 April 2007	College of Informatics	Poznan	Technical College	19
30 April 2007	XII Gimnazjum	Poznan	Primary School	15
14 June 2007	Polytechnic School	Wrzesnia	Technical College	19
12 December 2007	Polytechnic School	Wrzesnia	Technical College	53
20 February 2008	J. and WL. Zamoyskich's Secondary School	Rokietnica	Secondary School	19

2.2.4.3 Formal Opening of Dept of Computing and Electronic Systems at University of Essex

University of Essex presented the PHOSPHORUS project during the Grand Opening of its new department, The Department of Computing and Electronic Systems on the 4th of October 2007. The event drew audiences from a wide background. PHOSPHORUS partners were on hand to give a short introductory description of the project to visitors at the event with the aid of the PHOSPHORUS poster.

2.2.4.4 Researchers Night at Poznan

PSNC presented the PHOSPHORUS project during Researchers' Night 28th September in Poznan (www.nocnaukowcow.pl/en/about). The aim of the event was to give the public and in particular young people,

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the opportunity to meet researchers within the context of festive and 'fun' activities and to highlight the appeal of pursuing a research career.

The visitors had possibility to see the PHOSPHORUS testbed devices and they had been introduced to the reasons of the PHOSPHORUS testbed implementation. Some PHOSPHORUS posters and many brochures with details about the project were available.

2.2.4.5 "Virtually A Student" Summer School at University of Essex

July 23 – 25 2007 saw thirty-two high school students, aged 16, experience a three-day summer school stay at the University of Essex. The summer school was organised to introduce students interested in PHOSPHORUS fields to the choices available to them in Computer Science and Electronics. The visit included brief talks on different projects within the Department. The students were introduced to the PHOSPHORUS project with a brief summary with the aid of the official project poster.

2.2.5 References in the Press

The efforts made by one of the PHOSPHORUS partners, I2CAT, were acknowledged in two press releases. Both releases make explicit reference to the PHOSPHORUS project.

- The article, "*Alcatel-Lucent completes the international interconnection to the experimental scientific networks of the Foundation i2CAT*" was released on 8th October 2007. It can be found in the online magazine, "The Economist" ("economista.es") and accessed at: <http://www.economista.es/empresas-finanzas/noticias/291214/01/70/Alcatel-Lucent-completa-la-interconexion-internacional-a-las-redes-cientificas-experimentales-de-la-Fundacion-i2CAT.html>
- "*Alcatel-Lucent extends the capacities of interconnection of i2CAT with GLIF*" was published in the the World Communications online magazine on the 9th of October 2007. (<http://www.idg.es/comunicaciones/noticia.asp?id=61048&seccion=telecomunicaciones>)

A further press release was released from Internet2 regarding the Phosphorus-related demo. It can be accessed by visiting the following link: <https://mail.internet2.edu/www/arc/i2-news/2007-11/msg00002.html>

2.2.6 Multimedia Material

An important PHOSPHORUS promotion material is a PHOSPHORUS movie. The first release of this video is 3 minutes long movie that depicts the PHOSPHORUS ideas and objectives as well as its partners. This can be viewed from the Documents section of the website.

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3 Future Plans

3.1.1 Website

The website has seen a major revamping over the past few months. Future plans for the website include a Publications page which will include all PHOSPHORUS publications, a brief summary of the publication including date and conference where presented. It will also include links to each conference.

3.1.2 Exhibitions, Demos, Conferences and Workshops

Following the success achieved in organising events, workshops and demos, and dissemination and publications during the year, the PHOSPHORUS consortium plans to continue this trend and plans to participate in 27 events [2] of which participation in 5 events are confirmed [1]. In addition, PHOSPHORUS partners are organizing a number of workshops to take place during the year.

3.1.2.1 *Workshop on Service-aware Networks: technologies and architectures for the pervasive and seamless interaction of advanced demanding applications and the high-speed networks*

The Workshop on Service-aware Networks: Technologies and Architectures for the Pervasive and Seamless Interaction of Advanced Demanding Applications and the High-speed Networks (<http://monstera.man.poznan.pl/sanw/>) will be co-allocated with the International Conference on Telecommunications (ICT2008). It is scheduled to take in St Petersburg, Russia in June 2008. The main objective is to discuss and work on the emerging paradigm of a service-aware networking, which is based on the flexible and holistic control of network and non-network resources. The workshop is co-supported by PHOSPHORUS.

3.1.2.2 *Workshop on High Performance Grid Networks*

The Workshop on High Performance Grid Networks (<http://hpng.intec.ugent.be/index.php>), is scheduled to take in Lyon, France in May 2008. The main objective is to discuss and work on the emerging aspects related to advanced techniques, platforms, paradigms and models for the design, deployment and usage of high performance Grid networks. The workshop is co-supported by Phosphorus and co-located with CCGRID2008.

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3.1.2.3 *Federica-Phosphorus Tutorial and Workshop*

The Federica-Phosphorus Tutorial and Workshop (http://www.ist-phosphorus.eu/event_07.php, <http://tnc2008.terena.org/meetings/>) aims to present a platform to discuss architectural solutions for network and IT service integration over high-speed network infrastructure. In particular, the workshop will present various implementations of network control and service plane architectures to support the emerging infrastructure-as-a-service model. The workshop is scheduled to take place on 18th May 2008 in Bruges (Brugge), Belgium and will be co-allocated with TERENA Networking Conference (TNC) 2008.

3.1.3 **Multimedia Material**

The first release of the PHOSPHORUS video clip will be enhanced to include other video materials gathered such as: the interviews with partners from the PHOSPHORUS consortium, reports of PHOSPHORUS activities during some workshops and presentation of promotion materials like posters and brochures.

3.1.4 **References in the Press**

Phosphorus project has been covered by eStrategies magazine. The magazine covers a range of technical Research topics and enjoys a European wide audience in over 30 countries. The article is expected to appear in its April edition covering Advanced Grid Technologies.

3.1.5 **Browseable CD**

All publications will be collected and published onto a browseable CD by the PHOSPHORUS consortium. The CD will be structured into general information and each of the main technical areas. The CD will be distributed at selected conferences.

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4 Acronyms

BoF	Birds of a Feather
ECOC	European Conference and Exhibition on Optical Communication
EC	European Commission
EU	European Union
GHPN	Grid High-Performance Networking
GLIF	Global Lambdagrid
GMPLS	Generalised Multi-Protocol Label Switching
NREN	National Research and Education Network

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1. C. Abosi, D. Simeonidou, R. Nejabati, D. Parniewicz "PHOSPHORUS deliverable D7.1.3: Annual Report on Dissemination Activities", Project deliverable, European IST project PHOSPHORUS, March. 2008
2. C. Abosi, D. Simeonidou, R. Nejabati, D. Parniewicz "PHOSPHORUS deliverable D7.1.2: Plan for Using and Disseminating the Knowledge", Project deliverable, European IST project PHOSPHORUS, Oct. 2007

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