

## e-ScienceTalk

## PROJECT PERIODIC REPORT

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Periodic report:	1 <sup>st</sup> 🗌	2 <sup>nd</sup> ⊠	3 <sup>rd</sup> 🗌	4 <sup>th</sup> 🗌
Period covered:	from	1 <sup>st</sup> Sept 2	2011 to 3	1 <sup>st</sup> August 2012

Name, title and organisation of the scientific representative of the project's coordinator<sup>1</sup>: EGI.eu, Catherine Gater. Deputy Director

Tel: + 31 (0)6 30372738

E-mail: catherine.gater@egi.eu

Project website<sup>2</sup> address: http://www.e-sciencetalk.eu/

<sup>&</sup>lt;sup>1</sup> Usually the contact person of the coordinator as specified in Art. 8.1. of the Grant Agreement .

 $<sup>\</sup>frac{2}{2}$  The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: <u>http://europa.eu/abc/symbols/emblem/index\_en.htm</u> logo of the 7th FP: <u>http://ec.europa.eu/research/fp7/index\_en.cfm?pg=logos</u>). The area of activity of the project should also be mentioned.







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## **Declaration by the scientific representative of the project coordinator**

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate)<sup>3</sup>:
  - As fully achieved its objectives and technical goals for the period;
  - □ has achieved most of its objectives and technical goals for the period with relatively minor deviations.
  - □ has failed to achieve critical objectives and/or is not at all on schedule.
- The public website, if applicable
   Is up to date
  - $\Box$  is not up to date
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project (section 3.4) and if applicable with the certificate on financial statement.

 All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 3.2.3 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: Catherine Gater.....

Date: .....10../ ..10...../ ..2012..

For most of the projects, the signature of this declaration could be done directly via the IT reporting tool through an adapted IT mechanism.

<sup>&</sup>lt;sup>3</sup> If either of these boxes below is ticked, the report should reflect these and any remedial actions taken.



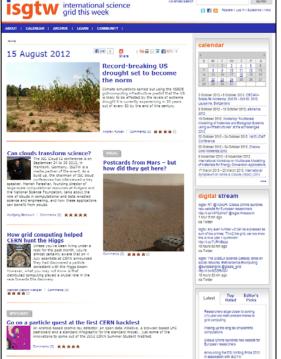
## 1.1 Publishable summary

## **1.1.1 Project context and objectives**

Over the last 10 years, the European Commission and governments have invested substantial funds in distributed computing infrastructures. Scientists have access to state-of-the-art computational and data resources located around the world, putting European research into a leading position to address the greatest challenges facing us today, such as climate change, pandemics and sustainable energy. The advent of the European Grid Infrastructure, combined with the blurring of boundaries between grids, clouds, supercomputing networks and volunteer grids, means that a clear consistent source of information aimed at non-experts is now more important than ever, through dissemination projects that cross national boundaries.

The objectives for e-ScienceTalk are:

- e-ScienceTalk will build on the achievements of the GridTalk project in bringing the success stories of Europe's e-Infrastructure to policy makers in government and business, to the scientific community and to the general public.
- e-ScienceTalk will work with EGI-InSPIRE and other collaborating projects to expand the scope of the existing GridTalk outputs, and to report on the interactions of grids with e-Infrastructures such as cloud computing and supercomputing.
- The project will explore options for the sustainability of e-ScienceTalk's products.
- e-ScienceTalk will produce a series of reports aimed at policy makers to disseminate key policy issues underpinning grid and e-Infrastructure development in Europe. The project will also coordinate e-concertation activities.
- The GridCafé, GridCast and GridGuide suite of websites will cover new topics and explore novel web technologies: they will integrate close



novel web technologies; they will integrate closely with the Real Time Monitor, combining live views of grid activity with the human aspects of computing.

• The growing weekly publication, *International Science Grid This Week* (iSGTW) will bring news and events to the existing and potential e-Science community.

e-ScienceTalk disseminates the success stories and impact of grid computing and e-Infrastructures. These stories come from the e-Infrastructure's flagship pan-European projects but also from a whole host of smaller and emerging projects. By giving these projects access to e-ScienceTalk's wide variety of dissemination channels, including websites, blogs, social media sites, weekly publications, events, conference booths and printed materials, their results can be disseminated far







more widely and to a greater range of audiences than would otherwise be possible. This audience reaches beyond Europe to the US, to Asia and to Latin America.

e-ScienceTalk forms a key element in a network of dissemination hubs serving the user communities, including the dissemination teams of EGI.eu, EMI, the National Grid Initiatives and others. Each of these hubs target different audiences, whether users from a virtual research community, users located in a particular country or region, middleware developers or owners and managers of the grid resources. As a dissemination project with international scope, e-ScienceTalk is well placed to distribute its products via the hubs for these specialist networks and hence reach a much wider audience. In turn, e-ScienceTalk is able to offer its well-established channels for success stories from the various communities, including its networks of media contacts, policy makers and its general public-focused products. For example, the GridCafé website



provides an authoritative and unbiased introduction to grids for the general public, while iSGTW reaches 8000 subscribers from across a wide range of science communities. The community contributions encouraged during GridTalk are being extended during e-ScienceTalk to include blogging through the GridCast and iSGTW websites, and coordination of e-concertation activities in the e-Infrastructure area.



e-ScienceTalk is working with other projects such as GÉANT, DANTE and PRACE to disseminate the interdependencies of Europe's e-Infrastructures through the e-ScienceBriefings, articles in iSGTW and by expanding the content of the GridCafé. e-ScienceTalk is also working closely with e-IRG and the European Strategy Forum on Research Infrastructures (ESFRI) projects who are involved in building a united roadmap for the development of e-Infrastructures in Europe. e-ScienceTalk aims to bring the progress of this roadmap to all its audiences in Europe and beyond. The e-ScienceBriefings are circulated to a wider audience beyond Europe, the GridGuide features an increasing number of sites outside Europe and GridCast blogs from at least one non-European event per year. As a joint EU-US initiative, iSGTW is by nature an international publication, covering projects from Europe and the US, as well as increasingly from Asia, Latin America and Africa.



## 1.1.2 Work performed in Project Year Two

## WP1: Policy, impact and sustainability

The main outputs from the policy, impact and sustainability work package have been in the areas of events, e-ScienceBriefings and policy related GridCasts. The framework for consultation has also been working well through the policy advisory group.

The briefings produced this year are:

- 1. Desktop grids: Connecting everyone to science Sep 2011
- 2. Research Networks: Global connectivity Feb 2012
- 3. Visualisation April 2012
- 4. Open Data, Open Science July 2012

The briefings are available online from the e-ScienceTalk website<sup>4</sup> and have been distributed through mailing lists and at events such as the EGI Technical Forum 2011, ISGC 2012, Cloudscape IV, and theEGI Community Forum 2012.

In September 2011, WP1 and WP4 coordinated the 9<sup>th</sup> e-Infrastructure Concertation meeting, which took place at the EGI Technical Forum in Lyon. The event attracted 150 delegates, including representatives of all the major Distributed Computing Infrastructure projects. e-ScienceTalk's WP2 created a supporting website<sup>5</sup> for the event and arranged video streaming.

The WP1 team also attended several policy oriented events to report on them for the GridCast blog, to research information for the briefings and to distribute the briefings themselves, including the EGI Community Forum 2012, Munich, ERF Workshop on Socioeconomic impact of research infrastructures, Hamburg, e-IRG workshop, Copenhagen, EGI Technical Forum 2012, Prague and Digital Agenda Assembly 2012, Brussels, among others.

<sup>&</sup>lt;sup>4</sup> <u>http://www.e-sciencetalk.org/briefings.php</u>

<sup>&</sup>lt;sup>5</sup> <u>http://www.e-sciencetalk.org/e-concertation/</u>



In response to the reviewers' comments at the 1<sup>st</sup> Periodic Review, e-ScienceTalk is investigating the impact of its products and exploring options for sustainability through its annual reports. WP1 led on producing the annual impact, feedback and sustainability reports in collaboration with WP4. The report concludes that the impact of each ScienceTalk product is encouraging and each product is reaching its intended audiences, with various options for sustainability beyond e-ScienceTalk.

## WP2: GridCafé, GridGuide, GridCast

WP2 is responsible for e-ScienceTalk's suite of interactive websites, Gridcafé, GridCast and GridGuide, as well as the main project website<sup>6</sup> and the Real Time Monitor.

#### GridCafé and e-ScienceCity

When the GridCafé website was first developed, it was a novel form of science communication that was nominated for awards. However, in order to fulfill the objective of keeping the GridCafé at the cutting edge WP2 needed to explore interactive environments and new web tools. A second aim for Year 2 was to develop new content areas of the website that covered other areas of e-infrastructures and distributed computing. The GridCafé website main content areas were migrated to the e-ScienceCity template at the end of PY1. The formal launch of the e-ScienceCity<sup>7</sup> and the CloudLounge<sup>8</sup> was in PM13. Areas on volunteer computing (Volunteer Garage<sup>9</sup>) and supercomputing (HPC Tower<sup>10</sup>) have also been published live. A marketing plan has been developed to drive traffic to the new site including the use of wikipedia, social media, iSGTW links, internal linking, an offline schools pack, promotion at conferences and GridCast videos. To develop the pilot 3D site, e-ScienceTalk has partnered with Virtus, a non-profit association and New World Grid and the growing virtual e-ScienceCity is now available.

#### GridCast

A number of GridCasts have been held during the second year. At most GridCasts, one or more members of the e-ScienceTalk team attended the event, blogging and in some cases recording video interviews. GridCasts were held at the EGI Technical Forum 2011, Lyon, eChallenges 2011, Florence, Citizen Cyberscience Conference 2012, London and the ERF Workshop on Socioeconomic impact of research infrastructures, Hamburg among others.

In PY2, we have the maximum number of bloggers on the Blogger platform, over 100. This year, e-ScienceTalk has a total of 181 blog entries, 30 podcasts and 46 bloggers. On average, there have been more bloggers per GridCast, rising from 3 in PY1 to 6 in PY2 for all major GridCasts. The percentage of new visitors has increased from 64.56% (PY1) to 73.48% (PY2), and so has the number of unique visitors from 8,270 to 9,625. The videos produced at GridCasts over the years have now been viewed more than 200,000 times in YouTube.

<sup>&</sup>lt;sup>6</sup> www.e-sciencetalk.eu

<sup>&</sup>lt;sup>7</sup> <u>http://www.e-sciencecity.org/</u>

<sup>&</sup>lt;sup>8</sup> <u>http://www.cloud-lounge.org/</u>

<sup>&</sup>lt;sup>9</sup> http://www.volunteer-computing.org/

<sup>&</sup>lt;sup>10</sup> <u>http://www.e-sciencecity.org/HPC-tower</u>







#### GridGuide / Real Time Monitor

The RTM is a real time visualisation of activity on the grid computing infrastructure. The RTM overlays site activity and job transfers onto the 3D globe, giving users the ability to see the current state of the grid infrastructure. RTM development has focused on four areas; the website, maintenance, user support and extending the application's functionality. In PY2, 66 countries are included in the RTM and the team has visited 10 events where the RTM has been demonstrated to over 12,000 delegates. GridGuide gives a human face to the grid, showing the sites and sights of grid computing. Users can listen to podcasts from grid sites worldwide, read about the ongoing work and watch interviews with researchers. There are currently 59 sites on the GridGuide, including 36 EU sites and 23 non-EU in the Americas, Africa and the Asia-Pacific region.

During PY2, e-ScienceTalk has contacted the "silent" users of the RTM who run the application during talks or at their institutes to demonstrate the grid. This has highlighted previously unknown usage in the UK, Germany, Greece, Taiwan and New Zealand. There have also been requests to be added to the RTM map from the EUMED grid as well as the Far East and Kuwait.

The functionality of the RTM has been upgraded in PY2 and a new version launched. The RTM's developer was approached by GÉANT to show data traffic on their network, the pan-European data network dedicated to the research and education community, which is now available as a new layer in the RTM.

## WP3: iSGTW

International Science Grid This Week (iSGTW) is produced on a weekly basis by WP3, sent to over 8100 subscribers by email. ISGTW published 48 issues in PY2. While the number of subscriptions has levelled off in the last year, the promotional focus has been on social media followers. The number of twitter followers has increased by 370% (341 to 1,269). Up to 165 countries and territories accessed the website during PY2. The number of unique visitors to the website has increased by one third from 126,151 to 168,044, an increase of 30%. The number of page views has also increased from 265,539 to 316,352, a rise of 19%. In August, the number of user accounts passed the 1,000 account mark. The media form an increasing proportion of iSGTW's readers, as shown by the annual readership survey. As a result, iSGTW's stories are increasing being 'picked up' by other media including Symmetry, Cosmos Magazine, HPCwire, Discovery News and Wired, increasing traffic to the publication.

The 2012 iSGTW readership survey was launched in May 2012 and 226 readers completed a multiple choice survey and provided comments. This is equivalent to 2.8% of the 8100 subscribers, an increase compared to the response rate of 137 readers, 1.7% of the readership, for the survey issued in 2011. The results from the survey showed that iSGTW is still highly reliant on the weekly newsletter for driving the majority of traffic to the site. The survey results also suggested that readers are fairly dedicated, with over half of them taking the time to read the majority of articles published in a given week. The feedback on user preferences will be used to shape editorial policy in the future and ensure that the topics covered reflect the interests of the readership. At the same time, the editorial team and board will seek to address those areas in which the publication scored



less well and will seek to increase readership from under-represented demographics, such as young people.

## WP4: Management and International Collaboration

The management team produced a report on feedback and metrics with WP1, including additional documents for the CRISP project. In total, an additional eight Memoranda of Understanding have been signed with collaborating projects in PY2, outlining how the projects and e-ScienceTalk will work together to maximise mutual dissemination activities and ensure sustainability, including GlobalExcursion, Virtus, EGI, EUDAT, N4U, SHIWA, CRISP, ERINA+. E-ScienceTalk also chairs the iSGTW Advisory Board and is part of the Programme Committee for the 11<sup>th</sup> International Symposium on Grids and Clouds 2013 in Taipei.

## **1.1.3 Expected final results and impact**

The important scientific and social impacts of dissemination projects that span national and international borders were outlined by Kostas Glinos, Head of Unit "GÉANT & e-Infrastructures, Directorate General for Information Society and Media, European Commission" in the GridBriefing Annual Report 2008-2009<sup>11</sup>, produced by GridTalk:

"Today, grid e-Infrastructures are facing significant challenges such as sustainability and the transition to a more user-driven and service-centric model. Grid computing has already engaged in the process of transitioning to a sustainable model of operation that would integrate at European level the corresponding national operations. This new pan-European organisation model will open grid e-Infrastructures to all scientific disciplines and complement national funding strategies in support of e-Science. Thanks to grid computing many prominent results have been achieved that directly affect people's lives.

It is essential to show the world and especially European citizens how Europeanfunded research e-Infrastructures are working for them. Responsible and open communication plays an important role in ensuring public support of the European grid e-Infrastructures activities. This is where projects like GridTalk, disseminating the benefits, success stories and challenges of grid computing to a wider audience, play an important role. The effective communication of complex technical or scientific matters to a wider audience not only increases the public appreciation and support to scientific progress but also inspires the younger generations to get involved in the research process."

The need for dissemination projects to communicate the success stories and societal impact of grid computing and other EC funded e-Infrastructures has not diminished since GridTalk started in April 2008, and in fact with the transition to a new model for grid computing in Europe through the European Grid Infrastructure this is more important than ever. While dissemination is carried out

<sup>&</sup>lt;sup>11</sup> GridBriefing Annual Report 2008-2009, GridTalk







very effectively by EGI.eu and the National Grid Initiatives in their own countries, there still exists a strong need to offer a global picture of this field to the scientific community and the general public. e-ScienceTalk is ideally placed to communicate this overview and its global context to the wide-ranging audiences already established for its products through the GridTalk project, and earlier in the case of the GridCafé and iSGTW, which have built up a loyal following over a number of years. The ability to reach out to these audiences is enhanced during e-ScienceTalk by codevelopment with the Real Time Monitor of Imperial College, London, which has proved to be an essential tool for communicating the global spread and complexity of the grid computing network to the general public and to key policy makers.

As mentioned by Kostas Glinos, it is not only important to increase public appreciation and support for scientific progress but also to inspire the younger generations to get involved. Communicating to university students and final year high school students will be an objective for e-ScienceTalk, which is again ideally placed to reach out to scientists and the consumers and providers of e-Infrastructures of the future. GridCafé is already seen as an important source of information for educators.<sup>12</sup> Adding more information about the human face of grid computing to the global GridGuide offers useful careers-based information to students thinking of a career in science, using profiles of people already working in grid computing and e-Infrastructures to answer questions such as: what qualifications do you need, what sort of careers are possible and where are the best places to work? Similarly, by marketing the e-ScienceTalk products on specialist and social media sites such as Slashdot, Facebook, Nature Networks, Twitter and BoingBoing, e-ScienceTalk reaches a younger audience, who are significant users of these technologies. For example, in Europe's Digital Competitiveness Report, Volume 1: i2010 - Annual Information Society Report 2009, the 16-25 age group were shown to be nearly twice as likely to have posted messages on chat rooms and forums than the average European,<sup>13</sup> demonstrating their higher level of digital literacy compared to other age groups. The development of the 3D e-ScienceCity in collaboration with NewWorldGrid is also an ideal way to bring e-science to a new and younger audience

## 1.1.4 Project web addresses

The web addresses for the e-ScienceTalk project are:

www.e-sciencetalk.eu – project website www.gridcafe.org – the GridCafé website www.e-sciencecity.org – the e-ScienceCity website www.gridcast.org – the GridCast blog www.gridguide.org – the GridGuide website www.isgtw.org – the International Science Grid This Week website http://rtm.hep.ph.ic.ac.uk/ - the Real Time Monitor website

<sup>&</sup>lt;sup>12</sup> EU Deliverable D4.3 "Feedback on GridTalk", 24 April 2009

<sup>&</sup>lt;sup>13</sup> Europe's Digital Competitiveness Report, Volume 1: i2010 – Annual Information Society Report 2009, Benchmarking i2010: Trends and main achievements



# **1.2** Core of the report for the period: Project objectives, work progress and achievements, project management

## **1.2.1 Project objectives for the period**

This section is taken from FP7-INFRASTRUCTURES-2010-CSA-SA\_eScienceTalk\_DoW Part B Section B1.1.1-B1.1.5.

## 1.2.1.1 Objectives for work package 1 – Policy, impact and sustainability

Governments across Europe have committed substantial funds to scientific grid computing, both through national projects and European initiatives. Scientists are reaping the benefits of this forward-looking investment, as there is an extensive production infrastructure in place, which is relied on by tens of thousands of researchers in many disciplines to produce results, including life sciences, social sciences, astronomy and high energy physics – work that is now being published in prestigious journals such as *Nature*<sup>14</sup>. However, this message needs to be reinforced with policy makers who influence the political decision-making process for science at the national and European levels.

#### GridBriefings

While projects such as Grid Computing Now! in the UK produced case studies and briefings aimed at UK businesses, there is still a need for reporting at a European and international level that is targeted at policy makers in science and business. In the past, this has represented a substantial gap in grid dissemination, and significant inroads have been made into this area by the GridTalk project's series of GridBriefings. These short, full-colour policy articles illustrate the scientific results and impacts arising from grid computing, interpreting EC policy documents and reports in an accessible and attractive format. GridBriefings have covered standardisation, the European Grid Initiative Design Study, grids and clouds and women in ICT among other topics and have been distributed to all contributing organisations, the Enabling Grids for E-sciencE dissemination lists and non-European projects including OSG, ThaiGrid and the E-science grid facility for Europe and Latin America (EELA-2). The GridBriefings are timed to coincide with relevant events, such as conferences or the launch of reports. In the first year, more than 40 projects contributed to the production of the briefings, including global projects and initiatives such as the Open Grid Forum, the Worldwide LHC Computing Grid, the Green Grid and the fusion project, ITER. The reviewers noted that the project "has made appropriate efforts on issues of importance to the European Commission, such as gender, through eg its GridBriefing on 'Women in ICT'."

<sup>&</sup>lt;sup>14</sup> *Nature Genetics* **41**, 283 - 285 (2009), "Genome-wide haplotype association study identifies the SLC22A3-LPAL2-LPA gene cluster as a risk locus for coronary artery disease"



Examples of e-ScienceBriefings

With the transition from the EGEE project to EGI and the rise in publicity surrounding cloud computing, it is now more important than ever to keep the achievements supported by European funded e-Infrastructures at the forefront of policy makers' minds. E-ScienceTalk will continue the successful series of GridBriefings as e-ScienceBriefings, aimed at policy makers in all layers of government and industry, describing for a non-technical audience how long-term investments in grid technology have led to concrete results. The reporting will provide useful policy metrics, in terms of investment, manpower and spin-offs in science and industry, and will also put results into the context of the overarching research themes supported by the EC. E-ScienceTalk will expand the audience and distribution lists for these targeted reports to regions outside Europe including the US, for example through the collaboration with OSG, Asia in partnership with ASGC and EUAsiaGrid, South America together with REUNA and ALICE2, and Africa. The content of the GridBriefings will also broaden, to discuss how grid computing is interacting with and influencing other forms of computing, including supercomputing, clouds and volunteer grids in order to offer policy makers a full picture of the development of e-Infrastructures in Europe.

A final summary of the e-ScienceBriefings will be published bringing together all the e-ScienceBriefings issued during the project, together with a foreword by a key official. A previous summary included a foreword by Kostas Glinos, Head of Unit "GÉANT & e-Infrastructures, Directorate General for Information Society and Media, European Commission" and was distributed to 100 decision makers in 47 countries. Recipients included leaders of EU projects such as GLOBAL and PRACE as well as members of the EGI policy board and policy makers in relevant governmental departments, for example the Chief Scientific Adviser of the Government Office for Science in the UK. Around an additional 100 copies of the annual report were also printed and distributed at events such as EGEE'09, the British Science Festival and eChallenges 2009 and a similar distribution plan will be followed for e-ScienceTalk.

The work package will synergise with other policy oriented e-Infrastructure projects, including the e-Infrastructure Reflection Group (e-IRG), the European Grid Initiative, the SIENA project (Standards and Interoperability for e-Infrastructure Implementation Initiative), the European Institute of Innovation and Technology and the ESFRI projects. It will also aim to work with science policy bodies, learned societies and with funding councils to raise the profile of grid



computing and e-Infrastructure in parliaments and governments. It will cooperate with networking and coordination projects such as GÉANT, DANTE, DEISA and PRACE.

#### Impact and sustainability

Additionally, this work package will assess the impact of longer running products such as iSGTW and GridCafé and explore possibilities for their sustainability beyond e-ScienceTalk. Assessment of the long term impact of these products was recommended by the first year reviewers of the GridTalk project. This work package will analyse the metrics and feedback gathered during both GridTalk and e-ScienceTalk, in order to formulate reports that will make recommendations on future direction, highlight lessons learnt that can benefit other EC-funded projects and explore options for sustainability beyond e-ScienceTalk. Explorations of self-sustaining funding models during GridTalk to date have found that the timing is not right for commercial support for iSGTW or GridCafé due to the financial climate, but this assessment could well change in the future and new opportunities may arise. Sustainability of the e-ScienceTalk products such as iSGTW, e-ScienceBriefings, GridCafé, multimedia outputs, digital library contents, images and publications will be a principal aim for this work package.

This work package will also assume a key leading and coordinating role in the concertation activities and meetings related to the e-Infrastructure area. The objective will be to optimise synergies between projects by providing input and receiving feedback from working groups addressing activities of common interest (e.g. from clusters and projects). Projects may offer advice and guidance, and receive information relating to the 7<sup>th</sup> Framework programme implementation, standardisation, policy and regulatory, EU Member States initiatives or relevant international initiatives. These annual events will seek to build on the LHC GridFest event in October 2008, which generated 160 international press clippings from TV, radio and press and significantly raised the profile of grid computing in the minds of the general public and policy makers. The work package will also identify and attend events focused on policy makers, similar to the eChallenges event in Istanbul attended by GridTalk in October 2009, in order to distribute briefings and communicate the issues directly. Similarly, the work package will target media meetings such as the International Science Journalism conference to build a network of media contacts, since reaching out through the media is an effective way to communicate with policy makers, as well as the general public.

The work package will be led by QMUL with contributions from APO and CERN, and will be tied closely to the GridCafé and iSGTW work packages. Policy articles will be published in iSGTW, helping to disseminate them to a wider audience including the grid community and e-ScienceBriefings will fuel the 'In Debate' section of the GridCafé and the Nature Networks forum of iSGTW.

## 1.2.1.2 Objectives for work package 2 – GridCafé, GridCast and GridGuide

This work package covers a suite of three high quality interactive websites: GridCafé, GridCast and GridGuide. GridCafé was created by CERN and the design company APO prior to the start of GridTalk and further developed during the project. All three web sites target slightly different sectors of the GridTalk and e-ScienceTalk audiences. Common to all three sites, as well as all



GridTalk's printed materials, is the outstanding design input from APO, a factor that is considered by the consortium to be a major contributor to the success of GridTalk. The reviewers also commended the extremely high standards attained stating: "The reviewers note the consistent high quality of the dissemination materials, both content (writing and subjects covered) and graphics."

#### GridCafé

The GridCafé website (www.gridcafe.org) was launched by CERN in 2003, with the aim of explaining to non-experts in a simple and stimulating fashion "what grid computing is and what it could soon be." It was nominated for both Pirelli International and Webby awards. GridCafé has been translated into several languages, including Spanish and French and it is widely cited as a primary web-based introduction and source of information about the grid.



Screenshots of the home pages for the GridCafé and e-ScienceCity websites

As one of the few places where grid computing is presented without bias to a specific grid or project, the GridCafé website is already widely used as a reference by many grid project websites, including the Open Grid Forum (OGF), a standards body for grids and the Enabling Grids for E-sciencE project. GridCafé also featured prominently in the coverage of grid computing during CERN's publicity campaign surrounding the start up of the Large Hadron Collider in September 2008. Grids were covered in the mainstream press, including on the BBC News website<sup>15</sup>, in the London *Times*<sup>16</sup> and the *Telegraph*<sup>17</sup>.

In its first phase, GridTalk redesigned the GridCafé website, keeping the friendly and welcoming feel of the original but introducing 3-D elements, new characters and a simpler navigation system to ensure easy access to all the site's pages. A new administrative system was developed, which enabled contributors to add materials in a range of languages, and the content of the site was

<sup>&</sup>lt;sup>15</sup> BBC News; 8 September 2008: "Large Hadron Collider: The Grid"

<sup>&</sup>lt;sup>16</sup> The Times, London, UK; 29 September 2008: "Grid of 100,000 computers heralds new internet dawn"

<sup>&</sup>lt;sup>17</sup> The Telegraph, London, UK; 9 September 2008: "The Grid' will see 80,000 computer network processing data from LHC"



completely revised. The new site has 65 new pages and has attracted more than 320,000 visits from nearly 100,000 visitors since its launch in November 2008, averaging over 5500 visitors per month.

In e-ScienceTalk, this work package will maintain and extend the GridCafé website, keeping it at the cutting edge of grid and science communication. The work package will add further links to demos, videos, games and online interactive tools and will also evaluate the possibilities for extending GridCafé into an interactive environment, such as Second Life, based on the success achieved during pilots conducted in GridTalk. The content of the site will be expanded to cover the interactions between grid computing and other forms of e-Infrastructure, including clouds, supercomputing and networks. Further translations of the site will be launched, including a Chinese version, in collaboration with the iSGTW contributor in Asia.

#### GridCast

This work package will also continue the GridCast blog site (www.gridcast.org) which enables scientists at grid events to blog about their experiences. The site was initially created before the start of GridTalk, and was redesigned and relaunched in September 2009. In its first year, GridTalk held six GridCast events, filming more than 70 podcasts with over 7300 views on YouTube alone. These events included the Open Grid Forum 23 in June 2008 in Spain, Supercomputing 2008 in the US, Cloudscape in Belgium and Enabling Grids for E-science 2009 in Barcelona. The GridCast blog attracted over 10,000 visitors by October 2009 from up to 80 countries. To promote GridCast's content to a wider audience, all posts are featured in Google News and Google Alerts. For e-ScienceTalk, the work package will continue to refine the blogging team, providing guidelines for bloggers and advertising the blogs. The work package will aim to run GridCasts from key grid events, including EGI conferences, the DEISA/PRACE Symposia and TERENA conference and will also aim to broadcast from at least one event in a developing country.



Screenshots and promotional poster for the GridCast blog site



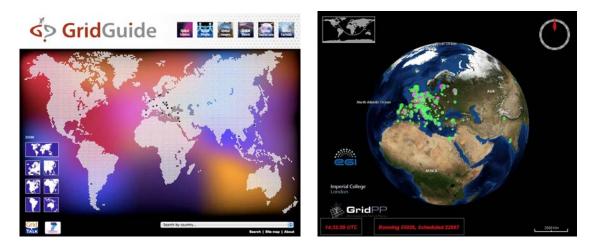




#### GridGuide and the Real Time Monitor

The GridGuide (www.gridguide.org) gives a human face to the grid, showing the sites and sights of grid computing. Users can listen to podcasts from grid sites worldwide, read about the ongoing work and watch interviews with researchers. GridGuide is the youngest of the GridTalk products, officially launched at the 4<sup>th</sup> EGEE User Forum in Sicily in March 2009. Individual sites are able to upload content themselves, allowing the GridGuide to grow independently but within the control of e-ScienceTalk. In its first months, the site has gathered together 31 site guides, 52 people profiles, 19 slideshows, 27 videos plus much more, adding up to a total of 250 items on more than 240 pages, and it is still growing. To date, the site has attracted more than 10,000 visitors, representing nearly 20,000 visits. The real impact of the site comes into its own when combined with the 3-D interactive Real Time Monitor (RTM) of GridPP.

The RTM is a 3-D virtual globe that shows live information about the jobs the grid is processing. The Imperial College developers worked with GridTalk to produce a version of the RTM that integrates GridGuide information. By clicking on a site that is also in GridGuide, a site information box opens that includes a feed from the GridGuide pages. At a click, the visitor can see a full picture of information from the site, on a technical and human level. The RTM is widely used for demonstrating the grid at conferences and events across Europe and beyond and is an accessible and engaging way to understand more about the grid. This work package will aim to integrate the recent developments of the RTM with the GridGuide to continue to foster this partnership, with the aim of making the RTM available on a wider range of platforms including as a web application, and ultimately on smart phones. E-ScienceTalk will also aim to increase the number of sites featured in the GridGuide including a higher proportion located outside Europe, representing work both in the grid arena, but also in related areas such as the network layer, supercomputing, volunteer and cloud computing. All the NGIs will be invited to participate, making GridGuide a definitive guide to the institutions that will create the backbone of the new European Grid Infrastructure. This work package will also investigate ensuring continued access to the existing contents of the Digital Library assembled by the BELIEF-II project.



Screenshots of the GridGuide (left) and the Real Time Monitor (right)







This work package will drive the overall branding for e-ScienceTalk, updating the logos and templates for posters and promotional materials such as leaflets and branded giveaway items. WP2 will also refresh the e-ScienceTalk project website, updating the look and feel for the start of the new project, providing information about the project and the project team, links to the e-ScienceTalk websites, downloads and press materials, as well as displaying news feeds from the other e-ScienceTalk websites such as iSGTW. The work package may also investigate updating the names of e-ScienceTalk products to reflect their expansion in scope, such as iSGTW and the GridBriefings. In addition, a full acknowledgement of the source funding (for example, the FP7 logo and the EU flag, EC/e-Infrastructures etc) will be given in all dissemination activities.

For this work package, led by APO with input from Imperial, QMUL and CERN, integration and collaboration with iSGTW will be of particular mutual benefit. The shared resources section will be further developed, exchanging materials and producing collaborative multi-media content. The GridGuide and Real Time Monitor are outstanding tools for communicating the scope and usage of the grid to policy makers, the media and the general public, and will be of significant use to WP1, particularly for the e-concertation events. GridCafé will also include a selection of grid and e-Infrastructure success stories based on the GridBriefings.

#### **1.2.1.3 Objectives for work package 3 – International Science Grid This Week**

International Science Grid This Week (www.isgtw.org) is a free weekly online newsletter that promotes grid computing around the world by sharing stories of grid-empowered science and scientific discoveries. ISGTW was launched in November 2006, and is now produced through a collaboration between GridTalk and Open Science Grid (OSG) in the US. During the first year of GridTalk, 50 weekly issues of iSGTW were produced and after 18 months there are now over 5800 subscribers, a 65% increase since the start of GridTalk. Over the same period, the iSGTW website saw 235,300 page views, with its readership coming from a total of 196 countries. In total 62 separate European projects were covered during the first year, and 46 American projects. The first year reviewers noted the increase in subscribers, and commended the project team's 'flexibility and creativity' in surpassing the original goal of increasing iSGTW subscriptions by 25% in year one "through proactive marketing linked to conference registrations." Some examples of these marketing materials – posters displayed at events – are shown below.



Publicity materials produced for iSGTW for events







Although iSGTW is a successful dissemination tool for the multi-science grid projects EGEE and OSG, it is apparent from readership feedback that the appeal of this newsletter lies in its much wider scope and selection of subject matter. The newsletter covers a broad range of national and regional grid projects, as well as related developments in the wider world of distributed computing and supercomputing. During the first year of GridTalk, iSGTW ran two month-long themed series, one on particle physics and the LHC and a second on women in information technology. In an effort



to attract and retain readers, iSGTW also covered stories on more unusual topics such as combating real-life, modern day pirates, earthquake prediction in Asia and innovative European art repositories. These stories often prove to be popular with other media outlets, and several have been reprinted in other online publications such as *SupercomputingOnline* and *PhysOrg*. Short readership surveys were conducted every six months, confirming that the iSGTW readership is happy with the publication and is keen to see a variety of topics covered, including the applications supported by the grid.

To enhance the online profile of iSGTW and to expand its readership, iSGTW set up a Facebook site to act as a community discussion area for beginners to the grid, and launched a forum on the prestigious Nature Networks site, a development that was strongly endorsed by

the first year reviewers. Nature Networks is an online scientific community, hosted by the journal *Nature*, where scientists can keep in touch with colleagues and discuss research and scientific issues. The iSGTW forum was featured on the home page of the Nature Networks site, a page that attracts millions of hits per year. ISGTW also tags articles so that items relevant to particular topics can be extracted from the archives and compiled into themed publications, such as the "EGEE in the iSGTW headlines" publications, produced by EGEE in April 2008, 2009 and 2010.

ISGTW is currently produced by a full-time European editor working in close collaboration with a US editor, based at Fermilab. Each editor publishes iSGTW on alternate weeks and reports to an Advisory Board that comprises members of EGEE, CERN, Fermilab and OSG. This has proved to be a highly productive partnership and OSG through TeraGrid has committed to a future phase of GridTalk and iSGTW via a formal Letter of Support accompanying this document. All technical support and maintenance for the iSGTW website is provided by Xenomedia, and all costs for this support are covered by OSG, an arrangement that will continue for the second phase. E-ScienceTalk will continue to fund the iSGTW European editor based at CERN, who will be jointly responsible (with the US editor) for locating stories, researching, interviewing, writing original content, fact-checking, locating illustrations, editing and proofreading each issue of iSGTW, as well as acting as day-to-day webmaster.

An important new development for e-ScienceTalk will be a new name for the publication and this will go hand-in-hand with a major redesign and relaunch of the publication. The relaunch will be enabled by a comprehensive upgrade to the underlying web content management system powering the publication, an essential replacement for the current older system. The upgrade will allow for significantly increased functionality, such as the ability to comment on stories and rate them, share stories through social media sites, run surveys and polls of the week and incorporate multimedia content more easily, effectively future-proofing the publication for the duration of e-ScienceTalk.







The upgrade will be implemented by Xenomedia, and the one-off costs of this upgrade will be funded equally by OSG and e-ScienceTalk. The relaunch will allow the readers to engage more deeply with iSGTW, building up an active community around the publication. This interactivity will be enhanced by the Nature Network forums, which if successful during GridTalk, will be expanded in the second phase of the project to become a key resource for working scientists to find out more about grid computing and e-Infrastructures and to discuss the issues of the day.

A second key advance for iSGTW during e-ScienceTalk, which will be reflected in its new name, will be an expansion of the variety of topics covered. While grid computing will remain at the publication's core, the impact of technologies such as supercomputing, the network layer, data and cloud computing on grid development and on e-Science will also be covered. This will reflect the current readers' interest in new and varied topics, a greater proportion of whom are now describing themselves as researchers rather than IT developers. Covering new areas will also help to make the publication appealing to readers from new fields, enabling iSGTW to grow its readership further during e-ScienceTalk by at least 30%. While this expansion in topics is driven by the readers' feedback, it also seen to be essential by the Advisory Board in order to allow the publication to grow and develop as grid computing and e-Infrastructures themselves develop and become more integrated.

This expansion will be supported by additional writing resource that will become available through a collaboration with a new contributor based in Asia, which will be available to e-ScienceTalk as unfunded effort. E-ScienceTalk will also fund an additional post for a Science Writer and Dissemination Officer at CERN who will write for iSGTW, while also making significant contributions to WP1 and WP2. As well as increasing the scope of the topics covered, these additional resources will allow for more exclusive stories and longer, more in-depth, multi-source stories to be produced – something that iSGTW's readers have consistently asked for in the readership surveys. ISGTW will also seek to recruit a student intern to work on the publication for up to 3 months, based either at CERN, Imperial or QMUL in collaboration with Science Communication degree courses. An internship was completed successfully during GridTalk by a student from the MSc in Science Communication at Imperial College, who advanced the marketing plan and contributed several articles at minimal cost to the project.

WP3, led by CERN with input from QMUL and APO, will integrate very closely with the other work packages in e-ScienceTalk. Articles for iSGTW can readily be adapted for use in the e-ScienceBriefings produced by WP1, and case studies discussed in the e-ScienceBriefings may also lead to full articles in iSGTW. The shared resources area between iSGTW and the GridCafé will continue to expand during e-ScienceTalk, and features and articles written for iSGTW can be included as web content in the GridCafé, GridCast and GridGuide sites.

## **1.2.1.4 Objectives for work package 4 – Management**

The objectives for the management work package are to ensure that the e-ScienceTalk project is run effectively and achieves its overall objectives in reaching out to its key audiences of policy makers, the scientific community, students and the general public. The work package will coordinate all the various activities for e-ScienceTalk and will also monitor progress. This will be achieved by



recording a range of metrics, but also through surveys of the iSGTW readers, conducting interviews and questionnaires at conferences attended by the grid and e-Infrastructure community, through the impact and sustainability reports of WP1 and also by acting on the feedback from the Project Management Board. This work package will also assist the EC in the organisation of information days, concertation meetings and brainstorming activities including access to videconferencing facilities. WP4 will also draw on the outputs of the final reports from each of the work packages to produce an overall guide to dissemination for EU-funded projects, based on the experience gained and lessons learnt from both the GridTalk and e-ScienceTalk projects. In this way, a strong synergy between the four work packages exists and can be exploited very effectively by this support action.

## 1.2.1.5 Objectives summary table

Key objectives of the Capacities Research Infrastructures Work Programme call INFRA-2010-3.3	E-ScienceTalk's relevance to these objectives
Proposals will aim at providing support for e- Infrastructures, including the coordination between national and pan- European e- Infrastructure initiatives and programmes	E-ScienceTalk will act as a key communication channel between the National Grid Initiatives, EGI.eu and dissemination teams in other e-Infrastructure projects, helping to coordinate their dissemination activities to deliver a clear message about the evolution of Europe's grid computing and e-Infrastructure services during the transition to EGI. GridTalk established a wide range of contacts across more than 60 European projects and will bring this high level of collaboration to e-ScienceTalk. The project has received Letters of Support from a number of European projects covering countries across Europe and beyond, and this document sets out concrete plans for how e-ScienceTalk will work particularly closely with EGI, DEISA, PRACE, GÉANT, OpenAIRE, OSG and others.
	E-ScienceTalk will form a key element in a network of dissemination hubs, including the dissemination teams of EGI.eu, EMI, the NGIs and others. Each of these hubs will target different audiences, whether users from a particular scientific community, users located in a particular country or region, middleware developers or owners and managers of the grid resources. As a dissemination project with international scope, e-ScienceTalk will be well placed to distribute its products via the hubs for these specialist networks and hence reach a much wider audience. In turn, e-ScienceTalk will be able to offer its well established networks of media contacts, policy makers and its general public-focused products as channels for success stories from the various communities. E-ScienceTalk will focus on collaboration







	with the dissemination teams of EGI.eu and DANTE. According to the EGI Blueprint <sup>18</sup> , the dissemination team for EGI.eu will "focus on content production and coordinating activities" and "support and coordinate the publication work of EGI". E-ScienceTalk's products will provide ideal channels for disseminating the outputs from these teams. For example, the GridCafé website is a standard resource for an authoritative and unbiased introduction to grids for the general public. ISGTW reaches over 5800 subscribers from across a wide range science communities, and e-ScienceTalk aims to increase this by at least a further 30%. This anticipated growth in readership will be coupled to an increasingly community-based dimension to iSGTW. This will be achieved through its contributions on grid computing and e-Infrastructures to the Nature Networks forum, the introduction of a reader comment facility on articles that will be available in the relaunched iSGTW, as well as reader polls and the ability to share stories through social media sites. The community encouraged during GridTalk will be extended during e-ScienceTalk to
	include blogging through the GridCast website, and coordination of e- concertation activities in the e-Infrastructure area.
specific studies on e- Infrastructure related topics, in particular to evaluate the impact of the e-Infrastructure programme including the establishment of appropriate indicators	Responding to the review comments for GridTalk, the e-ScienceTalk project will seek to evaluate more closely the impact of long running products such as GridCafé and iSGTW on their audiences, as well as the impact of the younger products. In turn, this will shed light on the impact of the e-Infrastructure programme itself on policy makers, innovators, the e-Science community and the general public. E- ScienceTalk will gather and analyse metrics relating to the GridTalk products, such as the readership figures for iSGTW and the profile of this readership by conducting annual readership surveys. Through web statistics, it is also possible to assess which types of stories gain the most attention from the community and to follow this up with more in- depth one-to-one interviews. The general and trade press also pick up certain iSGTW stories and redistribute them to their own readership, for example a feature on tracking down pirates off the Horn of Africa, and another on resurrecting an ancient Greek musical instrument using the grid. By evaluating which stories gain a wider a readership, it will also be possible to understand the impact the research has had on the general public.
	By monitoring which areas of GridCafé website are most frequented, this will also add to our knowledge of where gaps in understanding still exist among the general public regarding e-Infrastructures and

<sup>18</sup> EGI Blueprint, EU Deliverable: D5.3, 22 December 2008







	build up a fuller picture of where future dissemination projects should focus their efforts. Tracking the usage of the GridTalk products through readership surveys, questionnaires and interviews with delegates at key conferences will all help to extend our insight. By making the results of these studies available to other EC-funded projects through open access channels such as the BELIEF Digital Library and OpenAIRE, e-ScienceTalk will also contribute to the sustainability of the e-ScienceTalk products. E-ScienceTalk will also draw together the final deliverables from each of the work packages to produce an overall guide to dissemination for EC-funded projects, based on the experience gained and lessons learnt during both phases of the project.
support actions for the dissemination of information on the e- Infrastructure programme and project results as well as for project concertation.	The principle aim of e-ScienceTalk's work packages will be to disseminate the success stories and impact of grid computing and e- Infrastructures. These stories will come from the e-Infrastructure's flagship pan-European projects but also from a whole host of smaller and emerging projects, who have limited effort available for dissemination and limited networks of contacts and collaborating partners. By giving these projects access to e-ScienceTalk's wide variety of dissemination channels, including websites, blogs, social media sites, weekly publications, events, conference booths and printed materials, their results can be disseminated far more widely and to a greater range of audiences than would otherwise be possible. This audience reaches beyond Europe to the US through the US editor for iSGTW and the collaboration with OSG, to Asia through partnership with ASGC and EUAsiaGrid and to Latin America through REUNA. Collaborating with projects with an international scope such as SIENA and others opens up an even wider global audience for the European e-Infrastructure programme project results.
international cooperation including promotion of the interoperation between similar infrastructures on the global scale with the aim of reinforcing global relevance and impact of European e- Infrastructures.	E-ScienceTalk will work with the other projects such as GÉANT, DANTE and DEISA/PRACE to disseminate the interdependencies of Europe's e-Infrastructures through the eScienceBriefings, articles in iSGTW and by expanding the content of the GridCafé. Through the policy impact work package, e-ScienceTalk will also work closely with e-IRG and the European Strategy Forum on Research Infrastructures (ESFRI) projects who are currently involved in building a united roadmap for the development of e-Infrastructures in Europe that are user relevant and appeal to a wide variety of disciplines including social science and the humanities. E-ScienceTalk will aim to bring the progress of this roadmap to all its audiences in Europe and beyond. For example, the e-ScienceBriefings produced by WP1 will be circulated to a wider audience beyond Europe, including the US, Asia and Latin America. The GridCafé will feature success



stories from beyond Europe contributed by collaborating projects such as ASGC, REUNA and EUAsiaGrid. The GridGuide will also feature an increasing number of sites outside Europe, and GridCast will blog from at least one non-European event. ISGTW is by nature an international publication as it is a joint EU-US initiative, covering projects from Europe and the US, as well as increasingly from Asia, Latin America and Africa.

## **1.2.2** Work progress and achievements during the period

## 1.2.2.1 WP1: Policy, impact and sustainability

The main outputs from the policy, impact and sustainability work package have been in the areas of events, e-ScienceBriefings and policy related GridCasts. The work package leader also worked to consolidate the framework within which policy consultation takes place, liaising with the policy advisory group. This consists of the e-IRG Board, with additional advisors, for example from the EGI-InSPIRE project, from the European Middleware Initiative and others. The collaboration with e-IRG is formalised in a Memorandum of Understanding signed between e-ScienceTalk and e-IRGSP2/3 during PY1.

#### **Distribution of the briefings**

The e-ScienceBriefings are available in both printable pdf and html format, which improves the likelihood of them being indexed by search engines and facilitates the addition of additional links and multimedia resources. The briefings are disseminated through iSGTW, GridCast, Twitter, selected briefings in GridCafé and e-IRG newsletters. They are also distributed by email to all contributing organisation and the EGI mailing lists. Printed versions of the reports have also been distributed through booths at several events during the year, including EGI Technical Forum 2011, ISGC 2012, Cloudscape IV, EGI Community Forum 2012, HealthGrid11, eChallenges 2011, Citizen Cyberscience Conference 2012 and e-IRG workshops. An RSS feed has been set up to allow readers to subscribe to e-ScienceBriefings<sup>19</sup>. This feed is now displayed on the EGI.eu website<sup>20</sup> and the release of the briefings is announced on the news feed<sup>21</sup>. In PM13, a self-subscription mailing list was set up to allow people to sign up to receive the latest briefings and now has 126 subscribers.

The briefings produced this year are:

#### 1. September 2011: Desktop Grids

Volunteer computing through services such as BOINC means that citizen scientists can donate their spare computing cycles for projects requiring large scale effort.

#### 2. February 2012: Research Networks

<sup>&</sup>lt;sup>19</sup> <u>http://www.e-sciencetalk.org/rss/briefings.xml</u>

<sup>&</sup>lt;sup>20</sup> http://www.egi.eu/results/articles/

<sup>&</sup>lt;sup>21</sup> <u>http://www.egi.eu/about/news/news.rss</u>



Today's global science project requires substantial investment in e-infrastructrues to allow researchers to transfer data quickly and reliably. The European research network GÉANT is extending its reach beyond Europe to the Americas, Africa and Asia.

#### 3. April 2012: Visualisation

Powerful computers can produce graphics that elucidate patterns in complex data, helping scientists see further and across traditional disciplinary boundaries. There is an art to the visual display of quantitative information, making this an ever-evolving area of interest.

#### 4. July 2012: Open Data, Open Science

Open Access publishing has grown to meet the different market landscape of the Web, but concerted effort is needed to make data sharable and accessible to meet the challenges of the 21st Century

In PY2, e-ScienceBriefings have included case studies, quotes and information from 74 projects. On August 16<sup>th</sup> 2012, the number of total downloads stood at 6,450. Although maintaining a wide circulation of printed briefings is important, many more people download copies, and feedback from surveys reveals that people often forward the PDFs to colleagues. Data from the D1.4 *Annual Impact and Sustainability Report* revealed that the briefings are shared on regular basis through a variety of ways. Unfortunately, if a briefing is forwarded via email, it cannot be tracked. Since implementing AddThis Share information on the e-ScienceBriefings page in April, 13 people have tweeted the main e-ScienceBriefings page and 9 people have shared the page with others.

#### **Events organisation and attendance**

The team has organised one policy event in PY2, the 9<sup>th</sup> e-Infrastructure Concertation meeting, which attracted 150 delegates from a number of countries. WP1 and WP4 coordinated the logistics for the meeting, which took place during the EGI Technical Forum in Lyon in September 2012. The two-day event attracted 150 delegates including representatives from the e-Infrastructure landscape, policy makers and funding agencies. The webcast amassed a wide global audience attracting 454 unique visits from 57 different countries.

The WP1 team have also attended several policy oriented events in PY2, to report on them for the GridCast blog, to research information for the briefings and to distribute the briefings themselves.

- EGI Community Forum 2012, Munich
- ERF Workshop on Socioeconomic impact of research infrastructures, Hamburg
- e-IRG workshop, Copenhagen
- EGI Technical Forum 2012, Prague
- Digital Agenda Assembly 2012, Brussels
- 'Science: It's a Girl Thing' launch
- Research in Future Cloud Computing, Brussels
- XSEDE'12, Chicago

#### Impact and sustainability







In response to the reviewers' comments for GridTalk and the PY1 Review for e-ScienceTalk, WP1 is investigating the impact of its products and exploring options for sustainability through a series of annual reports. WP1 led on producing D1.4 *Annual Impact and Sustainability Report*<sup>22</sup> and had a significant input into D4.4 *Annual Report on Feedback and Metrics*<sup>23</sup> together with WP4. The report concludes that the impact of each ScienceTalk product is encouraging and each product is reaching its intended audiences.

E-ScienceTalk's impact has been measured by quantitative analyses using key metrics set out during the project's initiation in September 2010, then updated at the end of PY1 in response to the reviewers comments at the 1<sup>st</sup> Periodic Review. Qualitative assessment of the project's impact and reach has also been collected from surveys, focus groups, expert advisory panels and from anecdotal reports from individuals working in scientific research and science policy. Quantitative research has been carried out using surveys, web analytics, webometric tools and social media measurement tools.

The GridCafé project has been expanded upon by integrating it as an individual location within a larger 'e-ScienceCity'. For PY2, it was proposed that three new locations be developed and this metric has been met. New locations within e-Science City have been well-received by visitors so far. GridCasts continue to support the sense of community for participants in e-infrastructure and distributed computing across the globe, with traffic increasing from locations in south-east Asia and Latin America. A greater focus has been placed on promoting the GridCast through social media, and e-ScienceTalk has developed a following through Twitter as @e\_scitalk. GridGuides have seen an increase in the number of sites covered, and the Real Time Monitor is increasingly being used as a visual tool for educators explaining the potential of the grid. E-ScienceBriefings continue their expanding coverage of e-infrastructure and e-science policy-related issues for policy makers in industry and governments throughout Europe. ISGTW has seen readership of individual articles and pick-ups by the popular technical and science press increase significantly over the last few years, with a similarly high score on social media analysis tools such as Klout. The magazine has also 2,649 subscribers through social media in addition to over 8,100 mailing list subscribers.

Strategies for sustainability rely heavily on the success the project has experienced in establishing individual product brands and the ongoing commitment of the project consortium, in addition to the network of support partners with whom MoUs have been established (CHAIN, CRISP, EDGI, EGI, e-IRGSP3, EMI, ERINA+, EU-IndiaGrid, EUDAT, GISELA, Global Excursion, LINKSCEEM, N4U, SHIWA, Virtus and WeNMR). For the e-ScienceBriefings, time and effort is needed to curate future issues and a sponsor would need to have overarching policy aims in a European context. The GridCast site requires some funded effort for moderation and coordination of the volunteer blogger contributions, plus the video posts are a major draw and again require professional production. Contributions could be funded on a per event basis, perhaps through media partnerships. Maintenance of e-ScienceCity once new areas are posted is expected to be low – however new partners would be needed to develop content for new sections. For the RTM, development work is needed to sustain and update the underlying WorldWind platform, and to introduce new datasets. GridGuide is likely be best sustained through incorporation into the e-ScienceCity. ISGTW

<sup>&</sup>lt;sup>22</sup> https://documents.egi.eu/document/1297

<sup>&</sup>lt;sup>23</sup> https://documents.egi.eu/document/1328



continues to nurture a network of unfunded contributors from a wide range of projects in all its contributing regions. Work will continue during PY3 to position iSGTW as the preferred channel for the research community and major e-Infrastructures in Europe. US funds have now been secured for the US Editor and funding is needed to support the EU Editor role beyond e-ScienceTalk.

#### **Recruitment and internships**

An e-Science Impact Reporter was appointed at QMUL in PM18 to fulfil the effort commitments to WP1 and lead the impact and analysis work. An intern worked with the team in July and August 2012 to assist with planning for the 10<sup>th</sup> Concertation event, draw up a marketing plan for e-ScienceCity, research multimedia materials for the Communications Centre and prepare a schools pack based on the e-ScienceCity.

## 1.2.2.2 WP2: GridCafé, GridGuide, GridCast

WP2 is responsible for e-ScienceTalk's suite of interactive websites, Gridcafé, GridCast and GridGuide, as well as the main project website and the Real Time Monitor. During PY2, the work package also produced promotional materials, such as posters to advertise the e-ScienceCity, GridCasts and iSGTW at a number of events, as described below. A summary of web statistics for PY2 for each site is listed below:

e- sciencetalk.eu	e-ScienceCity	Gridcafe.org	Gridguide.org	GridCast blog	RTM
3258 visits 1972 unique views 5741 pages viewed 00:01:32 duration 69% bounce rate 59% new visits	2774 visits 1809 unique views 7695 pages viewed 00:02:55 duration 60% bounce rate 67% new visits	19,794 visits 10,351 unique views 67,446 pages viewed 00:09:51 duration 64% bounce rate 64% new visits	1807 visits 1470 unique views 2352 pages viewed 00:00:55 duration 81% bounce rate 80% new visits	12,959 visits 9625 unique views 19,643 pages viewed 00:01:24 duration 73% bounce rate 73% new visits	5815 visits 4642 unique views 12,763 pages viewed 00:01:31 duration 55% bounce rate 80% new visits

#### e-ScienceCity and GridCafé

When the GridCafé website was first developed, it was a novel form of science communication that was nominated for awards. However, in order to fulfill the objective of keeping the GridCafé at the cutting edge WP2 needed to explore interactive environments and new web tools. The aim at the start of the project was to create a simple virtual 3D on the OpenSim platform. Standard 3D tools would be used to create the content, so that it could be transferred to a different platform if OpenSim proved not to be a sustainable solution.







A second aim was to develop new content areas of the website that covered other areas of einfrastructures and distributed computing. Development of parallel GridCafé and other websites, such as CloudLounge proved to be impractical and went counter to the feedback from the audiences who prefer integrated websites, so a home website called the e-ScienceCity was developed in PY1. This involved the creation of a new concept of website, with new ways to navigate through the different zones of the virtual city. The structure and navigation for the 2D website ties in closely with the structure of the associated 3D virtual world and uses a hybrid technology: a unique dynamic menu, with static html content, in order to be able to update content with standard tools, avoid technologic problems like the use of Cyrillic alphabet and allow simple maintenance for the future.

The GridCafé website main content areas were migrated to the e-ScienceCity template at the end of PY1. The formal launch of the e-ScienceCity<sup>24</sup> and the CloudLounge<sup>25</sup> was in PM13 and is described in D2.2 *Updated Version of the GridCafé*<sup>26</sup>. Since the launch of e-ScienceCity and CloudLounge at the 9<sup>th</sup> e-Infrastructure Concertation meeting in Lyon, areas on volunteer computing (Volunteer Garage<sup>27</sup>) and supercomputing (HPC Tower<sup>28</sup>) have also been published live. Further sections on data and networks are also planned for PY3. In addition the Communications Centre, featuring multimedia, news and an image bank will be launched early in PY3, together with a People Bay section which includes nearly 100 profiles of people working in e-science, drawn from GridGuide and iSGTW. A marketing plan has been developed to drive traffic to the new site for implementation including the use of wikipedia, social media, iSGTW links, internal linking, an offline schools pack, promotion at conferences and GridCast videos.

Virtual worlds are increasingly popular for social networking, gaming and learning. In developing a pilot 3D site, e-ScienceTalk has partnered with Virtus, a non-profit association and New World Grid. The e-ScienceTalk team is benefiting from technical help from the NWG team, and from the team and community spirit of the users and has signed an MoU with the umbrella Virtus organization. The virtual world version of the site was launched in early PY2, and is experiencing good levels of visits.

#### GridCast

A number of GridCasts have been held during the second year. At most GridCasts, one or more members of the e-ScienceTalk team attended the event, blogging and in some cases recording video at the event. Some of the GridCasts have been organised remotely, such as the GISELA-CHAIN event in Mexico. At some events, the e-ScienceTalk team was supplemented bloggers from other projects and organisations, such as EGI-InSPIRE, SHIWA, ER-Flow and University of Melbourne. The details of the GridCasts are listed below.

- EGI Technical Forum 2011, Lyon
- 9<sup>th</sup> e-Infrastructure Concertation Meeting 2011, Lyon

<sup>&</sup>lt;sup>24</sup> <u>http://www.e-sciencecity.org/</u>

<sup>&</sup>lt;sup>25</sup> http://www.cloud-lounge.org/

<sup>&</sup>lt;sup>26</sup> https://documents.egi.eu/document/817

<sup>&</sup>lt;sup>27</sup> <u>http://www.volunteer-computing.org/</u>







- eChallenges 2011, Florence
- Citizen Cyberscience Conference 2012, London
- International Symposium on Grids and Cloud 2012, Taipei
- EGI Community Forum 2012, Munich
- ERF Workshop on Socioeconomic impact of research infrastructures, Hamburg
- e-IRG workshop, Copenhagen
- GISELA-CHAIN, Mexico City

In PY2, we have the maximum number of bloggers on the Blogger platform, over 100. This year, e-ScienceTalk has a total of 181 blog entries, 30 podcasts and 46 bloggers. On average, there have been more bloggers per GridCast, rising from 3 in PY1 to 6 in PY2 for all major GridCasts. The percentage of new visitors has increased from 64.56% (PY1) to 73.48% (PY2), and so has the number of unique visitors from 8,270 to 9,625. The videos produced at GridCasts over the years have now been viewed more than 200,000 times in YouTube.

The aim for GridCast during e-ScienceTalk, in comparison to GridTalk, has been to develop new types of blog post, such as editorial-style posts and feature guest bloggers from outside the usual community, such as from industry. Longer videos, such as conference overviews and on-camera face-to-face interviews, in a change to the more common off camera demo style videos have also been continued during PY2.

#### GridGuide / Real Time Monitor

In the first year of the e-ScienceTalk project the GridGuide and Real Time Monitor were upgraded and integrated. The Real Time Monitor has been upgraded during the course of the second year of e-ScienceTalk and a new version has been launched as D2.3 *Annual Upgraded Version of the RTM*<sup>29</sup>.

The RTM is a real time visualisation of activity on the grid computing infrastructure. The RTM overlays site activity and job transfers onto the 3D globe, giving users the ability to see the current state of the grid infrastructure. RTM development has focused on four areas; the website, maintenance, user support and extending the application's functionality. In PY2, 66 countries are included in the RTM and the team has visited 10 events where the RTM has been demonstrated, with over 12,000 delegates. GridGuide gives a human face to the grid, showing the sites and sights of grid computing. Users can listen to podcasts from grid sites worldwide, read about the ongoing work and watch interviews with researchers. There are currently 59 sites on the GridGuide, including 36 EU sites and 23 non-EU in the Americas, Africa and the Asia-Pacific region.

<sup>&</sup>lt;sup>28</sup> <u>http://www.e-sciencecity.org/HPC-tower</u>

<sup>&</sup>lt;sup>29</sup> https://documents.egi.eu/document/1299







During PY2, the e-ScienceTalk team added a new RTM logo designed by the WP2 team to the website. Grid technology is still evolving and sourcing the information about the status of the infrastructure varies from experiment to experiment. During PY2 the middleware used by the majority of sites monitored by the RTM changed subtly and so required some work. Since the start of e-ScienceTalk the RTM has kept abreast of developments of WorldWind and moving to the next full version of the software is being investigated and should be completed during PY3.

During PY2, e-ScienceTalk has contacted the "silent" users of the RTM who run the application during talks or at their institutes to demonstrate the grid. This has highlighted previously unknown usage in the UK, Germany, Greece, Taiwan and New Zealand. There have also been requests to be added to the RTM map from the EUMED grid as well as the Far East and Kuwait.

The functionality of the RTM has also been upgraded. The RTM's developer was approached by GÉANT to show data traffic on their network, the pan-European data network dedicated to the research and education community, which is now available as a new layer in the RTM. During PY1 the ATLAS job submission system PANDA was added to the RTM. Throughout PY2 the RTM team has been working on implementing the file transfers for the CMS experiment. CMS is also based at the Large Hadron Collider at CERN and uses a system called PhEDEx to monitor and manage data movements. This work is being done concurrently with the upgrade to WorldWind 1.4 so that the visualisations being used are slightly different to the grid traffic layer. Data is presented in a form of pulsating 3D cylinders, two per site, one for incoming data and a second for outgoing traffic.

The aim for PY3 will to complete the transfer to the latest version of WorldWind, fully integrate the CMS data transfers, continue to ensure that the application displays up-to-date and accurate information and investigate displaying data from new sources and infrastructures.

## 1.2.2.3 WP3: iSGTW

International Science Grid This Week (iSGTW) is produced on a weekly basis by WP3 and sent to over 8100 subscribers by email. Even though iSGTW had a considerably smaller workforce over several months in the summer of 2012– reduced from 3 editors/staff writers, to 1 FTE Interim Editor - the project has exceeded most of its targets. ISGTW published slightly fewer issues than last year (51 in PY1 vs. 48 in PY2). While the number of subscriptions has levelled off in the last year, the promotional focus has been on social media followers. The number of Twitter followers has increased by 370% (341 to 1,269).

The magazine also continues to include a wide geographical spread of articles, covering 112 European articles. In PY2, the number of US articles has increased slightly from 113 to 131, and the number of worldwide articles from 20 to 33. The total number of projects in the iSGTW/GridCafé resources section still stands at 134, and a concerted effort will be carried out to add to this section. iSGTW has been effective at distributing its printed materials distributed. Last year, the total was 330, but it has increased significantly to 2,380. Up to 165 countries and territories accessed the website during PY2. The number of unique visitors to the website has increased by one third from 126,151 to 168,044. The number of page views has also increased from 265,539 to 316,352, a rise



of 19%. In August, the number of user accounts passed the 1,000 account mark and active users increased by the largest amount since we've started recording with 34 actively using the site.

During Q8, Andrew Purcell was recruited to e-ScienceTalk partner CERN as the EU iSGTW Editor. Jacqui Hayes left the post at the end of March 2012. Due to discontinuation of the US funding through OSG, Miriam Boon left as US Editor in June 2012, and Asia Pacific Editor Vivian Chang also left ASGC at the beginning of June 2012.

The iSGTW Advisory Board has continued to meet and includes representatives from CERN, Fermilab, EGI.eu, OSG and QMUL and a representative from ASGC in Taiwan. Discussions are ongoing to involve XSEDE and PRACE in the publication in a formal way.

The media form an increasing proportion of iSGTW's readers, as shown by the annual readership survey. As a result, iSGTW's stories are increasing being 'picked up' by other media including Symmetry, Cosmos Magazine, HPCwire, Discovery News and Wired, increasing traffic to the publication.

#### iSGTW and social media

Following the launch of iSGTW's social media strategy in PY1, the number of followers on social media has markedly increased. The strategy includes linking more often from the branded Facebook and Twitter accounts, daily usage of Twitter and submitting links to aggregate sites such as Reddit and SlashDot. ISGTW has seen spikes in traffic as a result from posting to some of the aggregate sites and a growing stream of traffic from Facebook (more than 600 likes) and Twitter (more than 1200 followers). There are an increasing number of people following iSGTW on Facebook and Twitter and the editorial team will continue to monitor the effectiveness of this strategy in the final year. Readers can share iSGTW stories on social media and a ShareThis button is available on every article. The iSGTW Twitter account is now being followed and retweeted by some very large accounts, including @CERN (670,000 followers) and @NatureNews (430,000), which will also help to drive traffic to the website itself.

iSGTW examined its interactions/conversations via social media. The activity stream in Google analytics allows you to see how people engage with, share, and discuss content on social networks. This is difficult to track in the social media landscape. The Activity Stream in Google analytics shows who has interacted with your content, the URLs they shared, how and where they shared (via a "reshare", a "post", or a "comment" on Google+, for example), and what they said. This feature is segmented by Conversations and Events. 190 people held conversations, which include content reshares, comments and new posts by anyone on the specific social network. There were 444 events, which include +1s, bookmarks, votes, saves, etc.

#### Annual readership survey

The 2012 iSGTW readership survey was launched in May 2012 and 226 readers completed a multiple choice survey and provided comments. This is equivalent to 2.8% of the 8100 subscribers, an increase compared to the response rate of 137 readers, 1.7% of the readership, for the survey issued in 2011. The results from the survey showed that iSGTW is still highly reliant on the weekly newsletter for driving the majority of traffic to the site. The survey results also suggested that







readers are fairly dedicated, with over half of them taking the time to read the majority of articles published in a given week. Interest is split roughly evenly between the weekly spotlight, visual and features.

ISGTW has a highly engaged audience, with 81 per cent of respondents saying that they have 'discussed or forwarded an article or issue'. Respondents reported that they have attended an event, applied for a job or contacted researchers based on information they have found on the site. Over one fifth of respondents also said that they have cited or linked to iSGTW in a blog, paper, poster or talk. One respondent reported that iSGTW had helped them to come up with a new research idea and another reported that they had secured a grant as a result of their interaction with iSGTW.

While the majority of the readership is still comprised of men, the proportion of women who read iSGTW has now risen markedly since 2008. However, iSGTW still has very few younger readers. As with last year, 31-40 years is the most common age category, followed by 41-50. The growth in readers aged 51-60 has continued from last year also. This year's figure of 20 per cent represents a 5 per cent increase on last year and almost a doubling since 2010. ISGTW has seen the percentage of readers working in the media increase again this year to 12 per cent of users. The most popular categories were 'IT professional (employed by university/government, research facility)' and 'Academic researcher' which scored 36 per cent and 28 per cent respectively.

Only 52 per cent of respondents said they agreed or strongly agreed with the statement that they use iSGTW to keep informed about events and announcements. Almost a fifth of respondents said that they either disagreed or strongly disagreed with this statement. This suggests that the events section is not very popular with users. The editors will work to overcome this by linking to event announcements directly from related stories in the future.

In terms of the areas covered by iSGTW, grid, cloud and HPC/supercomputing are all very popular subjects, with large portions of the audience directly involved in working in these areas. There are also a large number of readers who are involved in cluster computing. Volunteer grid computing had the highest number of people who described themselves as not being interested, with networks also scoring poorly. However, opinion on these subjects seems to be highly polarized: both subjects scored very well in terms of the number of people who said they like reading about them, with volunteer grid computing actually coming out top in this category.

Similarly to last year, when asking readers what they like to read about, the topics were split into two categories, the academic topics (physics and astronomy, humanities, etc) and the infrastructure-related topics (workflow management, interoperability and standards, etc). As it did last year, future computing technology again proved to be the most popular topic overall. Equally, physics and astronomy once more proved to be the most popular of the academic topics, followed by life sciences (including health, medical and genomics), and then Earth and climate sciences. Humanities were the least popular academic topic. The ranking for academic topics is a carbon copy of the results attained last year. This suggests that these results accurately reflect the readers' tastes. In terms of the infrastructure-related topics, the survey also attained similar results to last year, with future computing technology once again proving the most popular topic and workflow management proving the least popular topic. A total of 44 people suggested other topics they were interested in. Some of the topics which were suggested more than once however, included: data management, materials science and the arts.







ISGTW will use this feedback regarding user preferences to shape the editorial policy in the future and ensure that the topics covered reflect the interests of the readership. Equally, this feedback is vital in terms of helping iSGTW to pitch articles at both the right length and the right level of technical difficulty. At the same time, iSGTW will seek to address those areas in which the publication scored less well and will seek to increase readership from under-represented demographics, such as young people. Finally, iSGTW will take inspiration from the suggestions/comments left by respondents in the open section at the end of the survey to help guide further development of the site.

## **1.2.3 Project management during the period**

## 1.2.3.1 **Project management**

During PY2, the PY1 costs were approved and project finances were distributed to the partners in the consortium. An amendment to the Description of Work was approved on 4 June 2012, covering changes to 3<sup>rd</sup> party funds to provide support to iSGTW for freelance work during the staff shortage, and for website maintenance due to the reduction in funding from OSG in the US.

#### **Project governance**

The Project Management Board for the project continued to meet under the Chairmanship of Prof Steve Lloyd of QMUL. The PMB has met four times in PM13, PM17 (face to face), PM19 and PM22 to review the progress of the project and to monitor the risk register, meeting milestones MS10.5, MS10.6, MS10.7 and MS10.8. The PMB has also reviewed and approved all the Deliverables and Milestones produced during the second year, after an internal review by the rest of the project team. The timetable for the review process is as follows:

- Internal draft ready by day 1 of the PM the report is due
- Document internally reviewed by the e-ScienceTalk team 2 weeks
- Document reviewed by the PMB 1 week
- Document submitted at the end of the PM the report is due

All Deliverables and Milestones have been submitted to the EC on time or in advance of the deadline, apart from one e-ScienceBriefing due to the recruitment gap at QMUL and D4.4 *Annual Report on Feedback and Metrics*, which was submitted in PM25 by agreement with the EC in order to include an analysis of web statistics from the full year.

The Project Coordinator has continued managing the team through weekly project meetings by telcon, which include all members of the project team. During these meetings, the Work Package Leaders present the progress achieved during that week by their team, actions are reviewed and discussed, and further actions agreed. A face-to-face meeting with the team was held in January 2012 at CERN, to review the actions arising from the first Periodic Review recommendations.



One management deliverable, D4.4 *Annual Report on Feedback and Metrics* was produced by WP4 in collaboration with WP1 in Q8, which included updates to the metrics for PY3. In addition to the agreed Deliverables and Milestones for the project, WP4 also produced quarterly reports for Q5<sup>30</sup>, Q6<sup>31</sup> and Q7<sup>32</sup>, which included progress updates for each work package, the Deliverables and Milestones issued, an estimate of resources consumed and the project and work package metrics. WP4 coordinated a special report on the CRISP website and social media feeds, part of the agreed activity plan described in the MoU with the CRISP ESFRI cluster project.

During PY2, effort reporting was completed by each project team member through an online tool called EasyTimeSheet, hosted by ERCIM. Tracking of project related travels, and also unfunded effort has been achieved using this tool throughout the year and the estimated expenditure for each work package and partner can also be derived from the online timesheets.

#### **Events attendance and organisation**

The general presentation about the project has been updated in PY2 and is available online<sup>33</sup>. Presentations about the project have been given by the Project Coordinator or by e-ScienceTalk team members at the EGI Community Forum 2012 in Munich, at the 9th e-Infrastructure Concertation Meeting in Lyon in September 2011 and at ISGC'12 in Taipei. A paper on e-ScienceTalk's impact measurement activities has also been accepted through peer review for the eChallenges event in Lisbon in October 2012.

In addition, WP4 assisted with logistics for the 9th and 10<sup>th</sup> e-Infrastructure Concertation events in Lyon 2011 and Brussels next year, including preparation of event budgets, set up of registration and invoicing for the booths. A live video feed of sessions was provided for the Lyon event in collaboration with GRDI20. The 10<sup>th</sup> e-Infrastructure Concertation event will take place in PY3 on 6-7 March 2013 in Brussels.

#### **International Collaborations**

In total, 8 additional Memoranda of Understanding have been signed with collaborating projects, outlining how the projects and e-ScienceTalk will work together to maximise mutual dissemination activities, bringing the total to 16.

MoUs signed in PY2 are:

- **Outreach**: GlobalExcursion, Virtus
- User community & infrastructures: EGI, EUDAT, N4U, SHIWA
- **ESFRI cluster projects**: CRISP
- **Policy**: ERINA+

<sup>&</sup>lt;sup>30</sup> https://documents.egi.eu/document/995

<sup>&</sup>lt;sup>31</sup> https://documents.egi.eu/document/1364

<sup>&</sup>lt;sup>32</sup> https://documents.egi.eu/document/1367

<sup>&</sup>lt;sup>33</sup> <u>https://documents.egi.eu/document/153</u>



WP4 has worked with the former BELIEF-II team to align the Digital Library<sup>34</sup> content with e-ScienceTalk products. An RSS feed of news from iSGTW is exported into the Digital Library website and e-ScienceTalk content has been uploaded to the Digital Library. The team was also working with the system administrators of the Digital Library to explore enabling upload of documents via the e-ScienceTalk website, but support for the Digital Library from the former BELIEF-II team ended in May 2012.

In addition, the Project Coordinator is the current Chair of the joint EU/US/Asia iSGTW Advisory Board that drives the editorial strategy of the publication. The Project Coordinator is also a member of the Programme Committee for the 11<sup>th</sup> International Symposium on Grids and Clouds 2013, Taipei.

## 1.2.3.2 Project issues

In PY2, e-ScienceTalk has encountered the following project issues that have required ongoing action throughout the year. Work package level issues resolved during the year have also been reported in the quarterly reports for Q5, Q6 and Q7. Ongoing issues include:

- Ensuring a good balance of information and contributions from collaborating projects eg for e-ScienceBriefings
- Adding Russian to the GridCafé
- Slow addition of new sites for the GridGuide
- Sustainability of iSGTW EU funding and recruitment of US and Asia Pacific Editors
- New name for iSGTW and protection of all e-ScienceTalk product names
- High travel costs for all work packages due to late booking of travel
- iSGTW subscriber numbers are not representative of the wider readership achieved social media and web stats give a more accurate picture
- Euro/CHF exchange rate for WP3 CERN is making far higher contributions to the costs of the project than foreseen
- Redistribution of underspent funds in final 9 months
- Support for Digital Library closed in May 2012

## Mitigation in Y2

For PY3, e-ScienceTalk will work to mitigate these issues:

- Continue to explore MoUs and collaborations with other projects eg ESFRI cluster projects to ensure balance and promote ongoing sustainability
- Low usage of non-English websites, so further translations may not be sustainable
- Explore moving GridGuide to an area inside the e-ScienceCity website
- Continue Chair role of iSGTW Advisory Board to promote funding sustainability and resolve the publication name issue
- Protection of current and future e-ScienceTalk product names before the project end

<sup>&</sup>lt;sup>34</sup> <u>http://belief-dl.research-infrastructures.eu/</u>



- Several media sponsorship arrangements in progress, including journalist and press delegate rates
- Monitor social media figures for iSGTW through the metrics and pursue media partnerships to include subscription to iSGTW as part of the registration process

Workpackage	Total plan (PM)	Achieved PY2 (PM)	Linear PY2 plan (PM)	YEAR 2 % achieved	YEAR 1 % achieved
WP1	46	15.3	16.7	92%	92%
WP2	64	20.8	23.3	89%	75%
WP3	52	17.7	18.9	93%	121%
WP4-M	17	5.2	6.2	85%	113%
WP2-UNF	8	0	2.9	0%	0%
WP4-UNF	5	0.7	1.8	39%	18%
Total	192	59.7	69.8	86%	90%

## 1.2.3.3 Consumption of resources overview

#### Table 1: Overall effort achieved in Q5-8 in PMs: per work package (based on EasyTS)

Overall effort consumption is at 86% of the planned effort for WP1-4, slightly lower than in PY1 at 90%. For funded effort, consumption is at 90.8% of planned effort compared to 94.5% in PY1. However, the unfunded effort has been under reported in PY2, especially in WP2. The majority of unfunded effort for WP2 has been committed by Imperial in terms of general dissemination activity for the project, a total of 8PM over the project duration. The dissemination activities are ongoing by Imperial but this is not currently being formally reported through the EasyTimeSheet tool, as during PY1. In PY1, there was under reporting in WP2 at 75% overall, and over reporting in WP3 at 121%. This was due to the overlap in staff and partners between WP2 and WP3 – many activities such as attending events and reporting for iSGTW and GridCast were done by the same staff at the same events and there can be ambiguity over which work package to report these activities in. For PY2, this effort has been rebalanced, and all work packages are reporting at similar levels, at 10-15% lower than planned. Two partners, QMUL and CERN have been affected by recruitment issues, with short gaps between replacing key staff. This has not impacted heavily on the delivery of project goals overall, but has led to reduced effort reporting in some work packages.

Partner	Total plan (PM)	Achieved PY2 (PM)	Linear PY2 plan (PM)	YEAR 2 % achieved	YEAR 1 % achieved
CERN	67	20	24.4	82%	90%
APO	34	10.6	12.3	86%	110%
QMUL	47	17.1	17.1	100%	80%
IMPERIAL	26	6.5	9.5	69%	80%
EGI.eu	18	5.5	6.5	84%	110%
Total	192	59.7	69.8	86%	90%

 Table 2: Overall effort achieved in Q5-8 in PMs: per partner (based on EasyTS)



As reported above, overall e-ScienceTalk is at 86% of planned effort for WP1-4. On a partner level, there is no over reporting of effort in PY2. As coordinating partner, EGI.eu was heavily involved in the start-up of the project and effort was slightly front loaded during PY1. This has been corrected in PY2, giving an average of 97% to date. Similarly, for APO as leader of WP2, setting up the project website and project branding caused a peak in effort consumption in the opening months of PY1. This has been offset in PY2, giving 98% overall. CERN slightly under reported effort in PY2 and PY1 due the Science Writer joining the project in PM2 and a gap in recruitment for the EU iSGTW Editor in summer 2012.

Workpackage	Cumul Direct	Cumul Indirect	Cumul Eligible	YEAR 2 Estimated Funding	
WP1	72,182	14,436	86,618	77,235	
WP2	108,638	21,727	130,366	116,243	
WP3	116,026	23,205	139,231	124,147	
WP4-M	42,409	8,481	50,891	45,378	
WP2-UNF	0.00	0.00	0.00	0.00	
WP4-UNF	4,691	938	5,629.43	0.00	
Total	343,947	68,789	412,737	363,004	

Table 3: Estimated personnel expenditure Q5-8 in Euros: per workpackage (based on EasyTS)

Partner	Cumul Direct*	Cumul Indirect	Cumul Eligible	PY2 Estimated Funding*	PY2 Planned Funding	PY2 % use	PY1 % use
CERN	101,667	20,303	122,000	108,783	163,611	66%	147%
APO	58,830	11,766	70,596	60,826	76,748	79%	94%
QMUL	85,005	17,001	102,006	90,955	107,778	84%	55%
IMPERIAL	32,944	6,591	39,533	35,251	38,801	91%	66%
EGI.eu	70,145	13,908	84,053	72,115	79,924	90%	97%
Total	348,591	69,569	418,188	367,931	466,863	79%	101%

\*include Y1 Adjustments and unfunded PMs costs

#### Table 4: Project total expenditure Q5-8 in Euros: per partner (based on Form Cs)

Overall the estimated project expenditure is at 79% for PY2 compared to 101% in PY1. This is compared to overall reporting of 86% of the effort across WP1-4 in PY2. The detailed costs for each partner are outlined in the summary Form Cs and justification of resources in the next section. As e-ScienceTalk sees the bulk of its effort provided by non Eurozone partners, including CERN in Switzerland (2 FTE), QMUL in the UK (1.5FTE) and Imperial (0.5FTE), these partners have been affected by fluctuations in exchange rates during 2011/2012. These fluctuations have impacted on the



estimated and actual costs for PY1. CERN's cost claims have balanced out between 147% in PY1, and 66% in PY2. Each of the other partners has reported costs of between around 10-20% lower than planned.



### **1.3** Deliverables and milestones tables

#### Deliverables

	TABLE 1. DELIVERABLES											
Del. no.	Deliverable name	Version	WP no.	Lead beneficiary	Nature	Dissemination level <sup>35</sup>	Delivery date from Annex I (proj month)	Actual / Forecast delivery date Dd/mm/ yyyy	Status No submitted/ Submitted	Contractu al Yes/No	Comments	
D3.1	Weekly issues of iSGTW		3	CERN	R	PU	1-33	13-24	Submitted	Yes		
D2.2	Updated version of the GridCafe website		2,1,3	АРО	0	PU	13	13	Submitted	Yes		

<sup>35</sup>  $\mathbf{PU} = \text{Public}$ 

Make sure that you are using the correct following label when your project has classified deliverables.

**EU restricted** = Classified with the mention of the classification level restricted "EU Restricted"

**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).

**EU confidential** = Classified with the mention of the classification level confidential " EU Confidential "

EU secret = Classified with the mention of the classification level secret "EU Secret "







					-					
D1.2.5	GridBriefings	1,2	QMUL	R	PU	14	14	Submitted	Yes	
D1.2.6	GridBriefings	1, 2	QMUL	R	PU	17	18	Submitted	Yes	2 weeks late by agreement due to staffing issue
D1.2.7	GridBriefings	1, 2	QMUL	R	PU	20	20	Submitted	Yes	
D1.2.8	GridBriefings	1, 2	QMUL	R	PU	23	23	Submitted	Yes	
D1.4	Annual impact and sustainability report on e- ScienceTalk products	1	QMUL	R	PU	23	23	Submitted	Yes	
D2.3	Annual upgraded version of RTM	2	APO	0	PU	23	23	Submitted	Yes	
D3.5	Report on survey of iSGTW readers and annual metrics	3	CERN	R	PU	24	24	Submitted	Yes	
D4.4	Annual report on feedback and metrics	4	EGI.eu	R	PU	24	25	Submitted	Yes	Submitted in PM25 by agreement







#### Milestones

	TABLE 2. MILESTONES										
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I dd/mm/yyyy	Achieved Yes/No	Actual / Forecast achievement date dd/mm/yyyy	Comments				
MS10.5	PMB meetings	4	EGI.eu	PM 13	Yes	PM 13					
MS2	E- concertation event	1,2,3	QMUL	PM 14	Yes	PM 13	Held early				
MS4	GridCasts	2	APO	PM 14	Yes	PM 14					
MS10.6	PMB meetings	4	EGI.eu	PM 16	Yes	PM 17	Due to PMB availability				
MS7	iSGTW posters and marketing materials	3	CERN	PM 17	Yes	PM 17					
MS8	Increase iSGTW readership by 15%	3	CERN	PM 17	Yes	PM 17					
MS4	GridCasts	2	APO	PM 18	Yes	PM 18					
MS5	GridGuide expanded to 25 new sites	2	АРО	PM 18	Yes	PM 18					
MS13	Dissemination materials	4	EGI.eu	PM 18	Yes	PM 18					
MS10.7	PMB meetings	4	EGI.eu	PM 19	Yes	PM 19					
MS4	GridCasts	2	APO	PM 22	Yes	PM 22					
MS10.8	PMB meetings	4	EGI.eu	PM 22	Yes	PM 22					
MS7	Posters and marketing materials	3, 2	CERN	PM 23	Yes	PM 23					
MS14	Dissemination materials	4	EGI.eu	PM 24	Yes	PM 24					







#### **1.4 Explanation of the use of the resources**

The following tables summarize the explanation of personnel costs, subcontracting and any major costs incurred by each beneficiary, such as the purchase of important equipment, travel costs, large consumable items, etc., linking them to work packages.

The partners QMUL, Imperial and CERN use the 'Special transitional flat rate' Cost model at 60%. However the initial tables into NEF record a flat rate @ 20% and by consequence it is not possible to enter the correct figure of the indirect costs into the current financial session.

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#### PARTNER short name EGI.eu

#### Table 3.1 Personnel, subcontracting and other major cost items for the period

Work Package	Item description	Amount in € with 2 decimals	Explanations
WP1 - Grid policy			n/a
WP2 - GridCafe			n/a
WP3 - iSGTW	Personnel direct costs		n/a
WP4- Mgmt		42,409	and dissemination activies
WP4- Mgmt UNFUNDED		2,708	
	Subcontracting	605	audit costs Y1 (Blomer, copy attached into NEF); costs exampt of VAT
WP1 - Grid policy			n/a
WP2 - GridCafe	Travel costs	5,857	CA-XSEDE-16-19July-Chicago; CG-QMUL-19-20Jan-London UK; CG- ISGC'12-24feb-5March-Taipei; CG-CRISP-22-25April-Heraklion Crete; CG-FutureCloud.Comp.Event-1-2May-Brussel; CG-eChallenges-16- 19Oct-Lisbon Portugal
WP3 - iSGTW			n/a
WP4- Mgmt		1,994	CG-Review-7-8Nov-Brussels Belgium; SN-Review-7-8Nov-Brussels Belgium; CG-FP7-28Nov-Brussels-Belgium; CG-PMB/F2F-16-18Jan- Geneva
	e-concertation meeting Lyon 2011	16,500	9th CONCERTATION MEETING, Lyon 22-23 Sept 2012 France
	Travel external people	0	n/a
	Remaining direct costs	71	all other costs than personnel, travel and equipment, if any. e.g. conferences fees
	Indirect costs	13,908	flat rate @ 20% or 60%. No overhead applies on subcontracting costs
	TOTAL COSTS[1]	84,053	

Situation of eligible budget and PM plan: 5.5 PMs used in Y2 **Costs audited** 







### PARTNER short name QMUL

#### Table 3.2 Personnel, subcontracting and other major cost items for the period

Work Package	Item description	Amount in € with 2 decimals		Explanations					
WP1 - Grid policy		48383		1xFT, Temporary contract Senior + 0.6FTE, temporary contract Senior					
WP2 - GridCafe	Personnel direct costs	24192							
WP3 - iSGTW	Personner direct costs								
WP4- Mgmt									
<b>.</b>	Subcontracting	0							
WP1 - Grid policy	Travel costs	6386							
	04.10.2011		WP1 Leader move	to Geneva					
	06.03.2012		Science Communic	ation Conference London 2012					
	07.02.2012		e-ScienceTalk Tea	m Meet-up, Geneva Travel					
	08.08.2012		EGI Technical Foru	Im 2012 Accommodation & Travel					
	10.04.2012		e-ScienceTalk Y1 I	Review. Brussels subsistence					
	10.04.2012		EGI Community Fo	rum 2012, Munich Travel					
	12.09.2011			oznan Accommodation					
	16.12.2011			m Meet-up, Geneva Accommodation					
	17.10.2011			um 2011, Lyon Travel					
	17.10.2011		Terena 2011, Prag						
	20.12.2011			m Meet-up, Geneva Travel					
	21.05.2012			1 day Course, London					
	21.08.2011			Im 2011, Lyon Registration					
	21.11.2011			Review, Brussels Accommodation					
	22.11.2011			Review, Brussels Accommodation & Travel					
	22.11.2011			im 2011, Lyon Travel					
	26.04.2012			F Socioeconomic Impactof Research Infrastructures, DESY Hamburg Travel					
	28.06.2012		ERF Socioeconomic Impactof Research Infrastructures, DESY Hamburg Accommodation & e-ScienceTalk Team Meet-up, Geneva Subsistence						
	30.01.2012								
	30.04.2012		EGI Community Fo	rum 2012, Munich Travel					
	30.07.2012		eChallenges 2012						
	23.08.2011		Terena 2011, Prag						
	23.08.2011		Terena 2011, Prag						
WP2 - GridCafe	Travel costs	5073							
	13.10.2011		e-IRG Workshop, F	Poznan Travel					
	18.08.2011			ue Accommodation					
	17.10.2011			registration (for M Lalloo and Z Qadir), Florence					
	22.11.2011		eChallenges 2001						
	10.11.2011			neeting Belgrade Travel					
	02.11.2011		eChallenges 2001						
	22.02.2012			rum 2012, Munich Accommodation					
	10.02.2012			rum 2012, Munich Registration					
	10.02.2012			rum 2012, Munich Registration					
	24.04.2012			/ Workshop Copenhagen Travel & Accommodation					
	21.04.2012			ation Conference London 2012					
	25.04.2012			rum 2012, Munich Subsistence					
	22.06.2012			/ Workshop Copenhagen Subsistence					
	31.07.2012			um 2012 Registration					
	04.10.2011			to EGI Technical Forum					
05.04.2012 e-IRG Workshop, Copenhagen registration									
	05.04.2012		e-IRG Workshop, T						
WP3 - iSGTW									
WP4- Mgmt									
-	Equipment	0							
	Remaining direct costs	971		conferences fees					
	Indirect costs	17,001		flat rate @ 20%					
	TOTAL COSTS[1]	102.006							

Situation of eligible budget and PM plan: 17.1 PMs used in Year 2

# Final version dated 8-10-2012







## PARTNER short name APO

# Table 3.3 Personnel, subcontracting and other major cost items for the period

Work Package	Item description	Amount in € with 2 decimals	Explanations
WP1 - Grid policy		4,802	1.08 PMs from 2 Senior permanent contract.
WP2 - GridCafe	Personnel direct costs	42,554	8.26 PMs from 2 Senior permanent contract.
WP3 - iSGTW		3,829	0.88 PMs from 2 Senior permanent contract.
WP4- Mgmt		1,983	0.5 PM from 1 Senior permanent contract.
	Subcontracting	0	
WP1 - Grid policy			
WP2 - GridCafe	Travel costs	5,218	CC-ISGC'12-24feb-5March-Taipei; CC Lyon TF forum 19-23 sept 2011
WP3 - iSGTW	Traver COSIS		
WP4- Mgmt			
	Equipment	360	Serveur e-ScienceCity - NWG
	Remaining direct costs	84	printing cards e-science talk
	Indirect costs	11,766	indicate your cost model: real overhead, flat rate @ 20% or 60%. No overhead applies on subcontracting costs
	TOTAL COSTS[1]	70,596	

Situation of eligible budget and PM plan: 10.6







PARTNER short name Imperial

### Table 3.4 Personnel, subcontracting and other major cost items for the period

Work Package	Item description	Amount in € with 2 decimals	Explanations
WP1 - Grid policy			
WP2 - GridCafe	Personnel direct costs	29,490	Salary costs of Dr Janusz Martiniak
WP3 - iSGTW			
WP4- Mgmt			
	Subcontracting	0	
WP1 - Grid policy			
WP2 - GridCafe	Travel costs	3,468	e-ScienceTalk meeting CERN; EGI Technical forum -19-23 Sept 2011 Lyon, France; EGI Community Forum - 26-30 March 2012 Munich, Germany; e-ScienceTalk Review - Brussels
WP3 - iSGTW			
WP4- Mgmt			
	Equipment	0	
	Remaining direct costs	0	
	Indirect costs	6,591	flat rate @ 20%
	TOTAL COSTS[1]	39,549	

- 1) Situation of eligible budget and PM plan: 6.5 PMs used in Year 2
- 2) Adjustments made to Year 1 costs:
  - a. -14 euros Adjustment for tax found in Travel claims







PARTNER short name CERN

### Table 3.5 Personnel, subcontracting and other major cost items for the period

Work Package	Item description	Amount in € with 2	Explanations
<u></u>		decimals	
WP1 - Grid policy		17,963.36	2.75 PM - Fellow
WP2 - GridCafe	Personnel direct costs	7,502.23	1.42 PM - Fellow
WP3 - iSGTW		72,823.09	15.84 PM - Fellow
WP4- Mgmt			NA
	Subcontracting	0	eg audit; please quote the reasons for use of external provider and the references of the DoW (prior agreement mandatory)
WP1 - Grid policy		704.61	1 person travelling to: EC presentation for project review Brussels 07.11.11 - 08.11.11 (476.97€) + flight ticket (227.64€)
WP2 - GridCafe			list date and place of Travels related to the project activities
WP3 - iSGTW	Travel costs	2053.47	2 persons travelling to: EGI Technical Forum Lyon 20.09.11 - 22.09.11 (936.94 €) , 1 person travelling to: EGI Technical Community Forum Munich 26.03.12 - 29.03.12 (600.49€) + flight ticket (243.30€) , Invitation of a non-member of the personnel (discussions on future work of iSGTW) 01.07.12 - 03.07.12 (272.74€)
WP4- Mgmt			list date and place of Travels related to the project activities
	Equipment	0	eg. small equipment; laptop costs falls under overhead
	Remaining direct costs	468.00	ICT trademark procedure regularisation (83.28€) + Printing job (360.13€) + Lift12 Geneva 22.02.12 - 24.02.12 inscription fee (24.98€)
	Indirect costs	20,303.00	20 % flat rate for overheads / as per NEF
	TOTAL COSTS[1]	121,818	

1) Situation of eligible budget and PM plan: Total PMs 20

In the PMs reported are includes J. Hayes's efforts over the period Sept 2011 until March 2012 (6.42 PMs) but not the corresponding costs.

- 2) Impact on level of activity as foreseen in the original Programme of Activities: No impact on the activities
- 3) Adjustments made to Year 1 costs:
  - a. -4 euros Adjustment on travel costs
  - b. +156 Adjustments on other direct costs (conference, etc.)
  - c. +10 indirect costs

#### Costs audited



# Part II Form C and Summary financial report (Submitted version 11-10-2012)

The participants FORM C, from each beneficiary and from each third party are submitted via the NEF portal. The summary financial report is accessible on the portal.

## FP7 - Grant Agreement - Annex VI - Coordination and support action

	Summary Financial report - Coordination and support action													
Pr	Project acronym e-ScienceTalk					Project nr 260733 Reporting 01/09/2011 to					2		Page	1/1
Funding	scheme	CSA				Type of	activity			To	tal			
				Coordination	/ Support (A)	Manage	ment (B)	Othe	er (C)	Total (A	+B+C)			
Benef. nr	If 3rd Party, linked to benef.	Adjustment (Yes/No)	Organisation Short Name	Total	Max EC Contrib.	Total	Max EC Contrib.	Total	Max EC Contrib.	Total	Max EC Contrib.	Req. EC Contrib.	Receipts	Interest
1		No	EGI.eu	0	0	84,053	75,012	0	0	84,053	75,012	72,115	0	0
2		No	QMUL	102,006	90,955	0	0	0	0	102,006	90,955	90,955	0	
3		No	APO	70,596	62,948	0	0	0	0	70,596	62,948	60,826	0	
4		No	Imperial	39,549	35,265	0	0	0	0	39,549	35,265	35,265	0	
4		Yes (l)	Imperial	-16	-14	0	0	0	0	-16	-14	-14	0	
5		No	CERN	121,818	108,621	0	0	0	0	121,818	108,621	108,621	0	
5		Yes (l)	CERN	182	162	0	0	0	0	182	162	162	0	
		Total		334,135	297,937	84,053	75,012	0	0	418,188	372,949	367,930	0	







# FORM C for the other JRUs MEMBERS (3rd party listed in GA) – N/A

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The following table is required only for the funding schemes for Research for the benefit of SMEs – N/A

#### THE TRANSACTION

Please provide a list of the actual cost incurred by the RTD performers during the performance of the work subcontracted to them. These costs refer only to the agreed '**Transaction**'.

Name of RTD Performer	Number of person months	Personnel Costs (€)	Durable equipment	Consumables	Computing	Overhead Costs (€)	Other Costs (€)	Total by RTD performer
TOTAL								