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Free University Brussel, Center for Law, Science, Technology and Society Studies, Belgium. Contact: Serge Gutwirth (serge.gutwirth@vub.ac.be). http://www.vub.ac.be/LSTS/

Trilateral Research & Consulting, London, United Kingdom. Contact: David Wright (david.wright@trilateralresearch.com). http://www.trilateralresearch.com/

Project web site: http://swami.jrc.es

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1 OBJECTIVES OF THE DISSEMINATION ACTIVITIES

As stated in section 6.2 of the Technical Annex, the SWAMI objectives in the exploitation and dissemination activities were basically two-fold: to obtain feedback and comments on our findings and to draw to the attention of both specialists and the public the results of our research and analysis.

The SWAMI consortium is rather pleased with its dissemination activities. The ways we have disseminated our results are referenced in the following sections, together with the results achieved.

2 SWAMI CONTACT DATABASE

At the start of the project, the SWAMI consortium compiled a contact database of about 650 separate contacts, compiled from other AmI related projects in Europe, Japan and the United States, AmI policy-makers and experts, ISTAG members, the eEurope steering group, the Article 29 working party, ENISA, those dealing with AmI-related issues at the Member State level, specialised press and selected daily newspapers. The distribution by category is as follows:

<table>
<thead>
<tr>
<th>Stakeholder category</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>association</td>
<td>24</td>
</tr>
<tr>
<td>conference</td>
<td>2</td>
</tr>
<tr>
<td>EC</td>
<td>43</td>
</tr>
<tr>
<td>government</td>
<td>78</td>
</tr>
<tr>
<td>Industry /enterprise</td>
<td>172</td>
</tr>
<tr>
<td>Research institute</td>
<td>79</td>
</tr>
<tr>
<td>Intergovernmental org</td>
<td>3</td>
</tr>
<tr>
<td>Media</td>
<td>51</td>
</tr>
<tr>
<td>standards org</td>
<td>6</td>
</tr>
<tr>
<td>university</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>total</td>
</tr>
</tbody>
</table>

3 SWAMI “NOTICES”

Periodically, during the project, the SWAMI consortium e-mailed “notices” (more or less equivalent to a press release) to the contacts on our database, as follows:

3 May 2005 – Notice re the first SWAMI expert workshop, held in Brussels, 1 June 2005.

20 July 2005 – Notice about the availability of the D1 report on the SWAMI website, e-mailed to 484 contacts.

29 October 2005 – Notice re the second SWAMI expert workshop, held in Brussels, 29 November 2005.
22 December 2005 – First notice re the SWAMI final conference, e-mailed to 684 contacts.


30 Jan 2006 – Notice about the availability of the D1 report on the SWAMI website, e-mailed to 684 contacts.

9 April 2006 – Notice about the availability of the report of the final SWAMI conference, e-mailed to 631 contacts.

8 July 2006 – Notice about the availability of the D3 report on the SWAMI website, e-mailed to 631 contacts.

4 SWAMI WEBSITE

The SWAMI website was developed and went online early on in the project. Following are some relevant statistics about traffic that has occurred. The column with the red heading (“Sites”) represents unique visitors. See the definitions following the table.

<table>
<thead>
<tr>
<th></th>
<th>Summary by month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily average</td>
</tr>
<tr>
<td></td>
<td>Hits  Files  Pages Visits</td>
</tr>
<tr>
<td>Jun-06</td>
<td>286  94  54  24</td>
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<tr>
<td>May-06</td>
<td>380  119  96  26</td>
</tr>
<tr>
<td>Apr-06</td>
<td>596  218 124 35</td>
</tr>
<tr>
<td>Mar-06</td>
<td>584  200 107 54</td>
</tr>
<tr>
<td>Feb-06</td>
<td>1067 402 130 70</td>
</tr>
<tr>
<td>Jan-06</td>
<td>406  112 44  23</td>
</tr>
<tr>
<td>Dec-05</td>
<td>190  51  30  18</td>
</tr>
<tr>
<td>Nov-05</td>
<td>200  56  26  15</td>
</tr>
<tr>
<td>Oct-05</td>
<td>138  35  19  12</td>
</tr>
<tr>
<td>Sep-05</td>
<td>48  12  6  3</td>
</tr>
<tr>
<td>Aug-05</td>
<td>157  59  20  12</td>
</tr>
<tr>
<td>Jul-05</td>
<td>190  68  23  12</td>
</tr>
<tr>
<td>Jun-05</td>
<td>51  27  14  8</td>
</tr>
<tr>
<td>May-05</td>
<td>101  73  22  6</td>
</tr>
<tr>
<td>Totals</td>
<td>4394 1526 715 318</td>
</tr>
</tbody>
</table>
Explanations

Hits

Hits represent the total number of requests made to the server during the given time period (month, day, hour, etc.).

Files

Files represent the total number of hits (requests) that actually resulted in something being sent back to the user. The relationship between 'hits' and 'files' can be thought of as 'incoming requests' and 'outgoing responses'. Not all hits will send data, such as 404-Not Found requests and requests for pages that are already in the browser’s cache. By looking at the difference between hits and files, one can get a rough indication of repeat visitors, as the greater the difference between the two, the more people are requesting pages they already have cached (have viewed already).

Pages

Generally, any HTML document, or anything that generates an HTML document, would be considered a page. This does not include the other stuff that goes into a document, such as graphic images, audio clips, etc. This number represents the number of 'pages' requested only, and does not include the other 'stuff' that is in the page.
Visits

Visits occur when some remote site makes a request for a page on your server for the first time. As long as the same site keeps making requests within a given timeout period, they will all be considered part of the same visit. If the site makes a request to your server, and the length of time since the last request is greater than the specified timeout period (default is 30 minutes), a new Visit is counted, and the sequence repeats. Since only pages will trigger a visit, remotes sites that link to graphic and other non-page URLs will not be counted in the visit totals, reducing the number of false visits.

Sites

Each request made to the server comes from a unique 'site', which can be referenced by a name or, ultimately, an IP address. The 'sites' number shows how many unique IP addresses made requests to the server during the reporting time period. Care should be taken when using this metric: Many users can appear to come from a single IP address/site, and the same visitor can also appear to come from many IP addresses so it should be used simply as a rough gauge as to the number of visitors to your server.

Volume of data transferred

A KByte (KB) is 1024 bytes (1 Kilobyte). The KBytes (kilobytes) value shows the amount of data, in KB, sent out by the server during the specified reporting period.

5 SWAMI WORKSHOPS & FINAL CONFERENCE

First expert workshop, Brussels, 1 June 2005. 25 Aml experts attended. The workshop was devoted to presentations of the results of the SWAMI research until then and to a brainstorming session on the most important factors for the realisation of the Aml vision and alternative trajectories for scenario building.

Second expert workshop, Brussels, 29 November 2005. 25 Aml experts attended. The workshop considered the challenges to privacy, security and identity posed by the deployment of ambient intelligence, together with the main societal factors.

Final conference, Brussels, 21-22 March 2006. More than 60 people – ambient intelligence (Aml) experts, policy-makers, regulators, European Commission officials, representatives of other Aml-related projects – attended the conference held in Brussels. Most were from Europe, but some from as far away as Japan and California. The purpose of the conference was to provide a forum for Aml experts and policy-makers to exchange views on the key findings of the SWAMI project.

6 CONFERENCE PRESENTATIONS

SWAMI partners have made presentations on the project at various workshops and conferences, as follows:

Friedewald, M., “The Brave New World of Ambient Intelligence and its Need for Safeguards”, Eurescom Summit, Heidelberg, 28 Apr 2005. About 400 representatives from industry attended the summit as a whole, about 25 in the session at which our presentation was made.


Delaitre, Sabine, “Safeguards in a World of Ambient Intelligence: Dark Scenarios”, presentation and participation in COST219 workshop, Seville, 6 March 2006.


Lindner, Ralf, “Gesellschaftliche Herausforderungen durch intelligente Umgebungen (Ambient Intelligence and its Challenges for Society)”, presentation at the TA '06: Sixth Austrian Technology Assessment Conference: "Vermessen, codiert, entschlüsselt? Potenziale und Risken der zunehmenden Datenverfügbarkeit" (Potentials and risks of increasing data availability), organised by the Institute for Technology Assessment (ITA), a research facility of the Austrian Academy of Sciences. http://www.oeaw.ac.at/ita/ta06/
About 80 attendees mainly from academia and the international technology assessment community.


Punie, Y., I. Maghiros and S. Delaitre, “SWAMI dark scenario exercise”, presentation (likely given by Y. Punie) and article in at the 2nd international Seville Seminar on Future-Oriented Technology Analysis (FTA) on the theme: FTA Assumptions, Methods and Approaches in the Context of Achieving Outcomes, Seville, 28-29 September 2006.

7 PEER-REVIEWED PUBLICATIONS

SWAMI partners have published information and results about the project as follows:


1 According to its website, the CACM has a readership of more than 85,000 professionals, 80 per cent of whom are in industry while 20 per cent work in government and academia.
http://www.acm.org/pubs/cacm/guidelines/infoauthors_02.html


8 NEWS REPORTS

CORDIS News2, 28 July 2005 – “FP6 project targets 'safeguards in a world of ambient” [by Charlie Dunmore]


CORDIS News, 11 July 2006 – “The potential dangers of Ambient Intelligence” [by Ed Owen]

http://www.informationweek.com/security/showArticle.jhtml?articleID=190303180 [Brief, one-para reference to SWAMI at end of article.]

9 BLOGS

Doors of Perception weblog – “X-ray ayes” [“What are the dark scenarios for Ambient Intelligence (AmI) ? Five threats are identified in a report from a powerful European consortium…”]. Posted 26 August 2005.

Doors of Perception weblog – Dark Scenarios In Ambient Intelligence [“A report entitled ‘Dark scenarios in ambient intelligence: Highlighting risks and vulnerabilities’ is available on the website of an EC-funded project on Safeguards in a

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2 CORDIS seems to have quite good “reach” – According to its press service, CORDIS is accessed each month by some 250,000 unique users, collectively viewing an average of nearly seven million pages, downloading over 300,000 documents and getting over 130,000 personal e-mail alerts. An average of some 2,000 new users register every month on CORDIS. http://cordis.europa.eu/press-service/20030523.htm#figures
10 INTERACTION WITH OTHER PROJECTS

SWAMI has interacted with other AmI-related projects, including the following where SWAMI partners have made presentations about our project.


Two SWAMI partners (VUB and IPTS) are also partners in the FIDIS project. FIDIS is a Network of Excellence established under the Sixth Framework Programme (FP 6). FIDIS undertakes extensive research activities on issues related to identity, privacy and security in the information society. In particular, the main FIDIS objectives are to shape the requirements for the future management of identity in the information society and to contribute to the supporting technologies and infrastructures needed therefore.

As of the date of this SWAMI dissemination report, an extensive FIDIS deliverable has been devoted to ambient intelligence, entitled "D7.3: Report on Actual and Possible Profiling Techniques in the Field of Ambient Intelligence", edited by Wim Schreurs, Mireille Hildebrandt (VUB, Belgium) and Mark Gasson, Kevin Warwick (Reading University, UK). The draft report (68 p.), to which IPTS also contributed chapters, is available on the FIDIS website. Besides this deliverable, a workshop entitled "D.7.6. Workshop on AmI, Profiling and RFID", organised by VUB, was held on 20 January 2006. Its report was edited by Els Soenens and Mireille Hildebrandt of VUB, both of whom also contributed to the SWAMI project. The 49-page workshop report is also available on FIDIS website.

Both the aforementioned FIDIS deliverable and workshop report mention SWAMI. During the FIDIS workshop, Anna Moscibroda presented an “Overview of the legal findings of the SWAMI project”, as cited below:


There were obvious interfaces between SWAMI and the SecurIST Project, which aims to deliver a Strategic Research Agenda for ICT Security and Dependability R&D for Europe. There has been a constant exchange of e-mails and reports between the two projects. The SecurIST project manager introduced and discussed SWAMI at one of the SecurIST events. SWAMI project member Ralf Lindner made a presentation – “SWAMI – Safeguards in a World of AMbient Intelligence” – at the Joint SecurIST & Mobile & Wireless Workshop, Brussels, 11-2 May 2006. A member of the SecurIST Advisory Board attended the SWAMI final conference. Representatives of each project are on the other’s contact list.


The SWAMI partners were invited to participate (and did so) in the Digital Territories workshop which took place on 30 June – 1 July 2005. The digital territories study was commissioned by the IPTS.

Moscibroda, Anna, “SWAMI- presentation of the project and its first results”, at the SPICE internal workshop, Munich, 4 April 2006. About 20 in session at which our presentation was made.

Michael Friedewald made some oral remarks (not a presentation) on the SWAMI project at the Wireless World Research Forum, Meeting of SIG 2 on Security Topics, Darmstadt, 16 June 2005. Fifteen industry researchers participated.

Privacy and Identity Management for Europe (PRIME) – [http://www.prime-project.eu.org/]

The PRIME project (Mar 2004-Feb 2008) aims to develop solutions for privacy-enhancing identity management for end users. The PRIME consortium expects to help citizens manage their privacy and to support business in its compliance with privacy data processing requirements. Making identity management easy for users and service providers to understand and to use is also a goal of the PRIME project, which aims to develop models demonstrating innovative solutions for managing identities in real life situations, such as travel, location-based services, e-learning and e-health, and thereby bring privacy-enhancing technologies closer to the market. Software agents such as those considered by the PISA and PRIME projects appear to be promising technological developments for enhancing privacy and security.

Thus, PRIME and SWAMI share many interests in relating to privacy and identity, and the user-friendly ways in which they can be protected. Hence, there has been a considerable exchange between the SWAMI and PRIME projects (PRIME partners on
the SWAMI contact list, their participation at the SWAMI, final conference and so on).

11 BOOK

IOS Press has expressed a willingness to publish a book based on the research undertaken by the SWAMI consortium.

12 SWAMI ON EC WEBSITES

Information about SWAMI appears on the EC’s Research website at http://ec.europa.eu/research/fp6/ssp/swami_en.htm

IST Project Fact Sheet, Safeguards in a World of AMbient Intelligence (SWAMI) http://icadc.cordis.lu/fep-egi/srchidadb?ACTION=D&CALLER=PROJ_IST&RCN=74516

Information about the SWAMI Final Conference on the eInclusion@EU website: http://www.einclusion-eu.org/CalendarItem.asp?CaseTitleID=1512


13 OTHER WEBSITES

Reports or references have appeared on other websites, including the following:

http://www.smartmobs.com/archive/2006/01/02/safeguards_in_a.html

http://www.ists.dartmouth.edu/pervasive-privacy.ppt

14 FEEDBACK

Following is a small sampling of the feedback SWAMI partners have had in regard to the project:

“Congratulations with your nice report. My first impression is that it gives a very good overview with a lot of useful references.”
E-mail from Ger van den Broek, Philips Research S&S, Netherlands, 20 Jul 2005

“The material [in SWAMI D1 report] raise a lot of very relevant questions.”
E-mail from Stephan Engberg, Open Business Innovation, Denmark, 20 Jul 2005
“Many thanks - quite a few people have suggested we should look at this.” E-mail from Keith Howker, Vodafone Group Research and Development, UK, 30 January 2006, in response to notice re availability of SWAMI D2.

“Just wanted to drop you a note to say I have read the report, and I think it's a very important contribution.” E-mail from Caspar Bowden, Chief Privacy Advisor EMEA, 27 Feb 2006, in response to notice re availability of SWAMI D2.

“We have recently included your project Swami in the portal's directory of European e-learning projects that currently has over thousand projects. I hope you are familiar with the elearningeuropa.info which is a portal established by the European Commission to promote the use of multimedia technologies and Internet at the service of education and training. We are a community of over 20,000 registered users.” E-mail from Elina Jokisalo, elearningeuropa.info portal's editorial team, 27 March 2006. 

15 OTHER DISSEMINATION ACTIVITY

In late July, the UK House of Lords Select Committee on Science and Technology announced that a subcommittee would be investigating personal Internet security. The Select Committee said it would welcome inputs from the public until 23 October 2006. SWAMI forwarded a copy of its D3 report (*Threats, vulnerabilities and safeguards in a world of ambient intelligence*) to the contact point (Clerk of the Science and Technology Committee), who by return e-mail of 31 July 2006 thanked us for the report and added, “It looks like it will be extremely useful for our inquiry. I obviously need some time to digest your report, but at some point I'm sure it would be very useful to talk to you about some of the issues.”

The Committee will invite some of those who submit written evidence to give oral evidence at Westminster. Transcripts of such evidence will be published. The House of Lords committee is expected to issue its report in the summer of 2007. 3

16 INVOLVED EXPERTS AND STAKEHOLDERS

The following is a list of the experts who have participated in the SWAMI workshops and final conference. In addition to their participation in one or more of those, some of these experts have also been of assistance to the project in other ways too.

Emile Aarts, Philips, Eindhoven, The Netherlands
Laurent Beslay, European Data Protection Supervisor, Brussels, Belgium
Sandro Bologna, Italian National Agency for New Technologies, Energy and the Environment, Rome, Italy
John Borking, Data Protection Authority, The Hague, The Netherlands
Michael Boronowsky, University of Bremen, Germany
Maarten Botterman, RAND Europe, Leiden, The Netherlands

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Ian Brown, Foundation for Information Policy Research, London, United Kingdom
Jeff Burke, UC Los Angeles, USA
Johann Cas, Institute for Technology Assessment, Vienna, Austria
Marco Conte, CE Consulting, Rome, Italy
Stephan Engberg, Priway, Århus, Denmark
Alain Esterle, ENISA, Heraklion, Greece
Catarina Frois, University of Lisbon, Portugal
Dimitrios Gritzalis, Athens University of Economics and Business, Greece
Markus Hansen, Independent Data Protection Centre Schleswig-Holstein, Kiel, Germany;
Lorenz Hilty, Swiss Federal Materials Testing Agency, St. Gallen, Switzerland
Mario Hoffmann, Fraunhofer SIT, Darmstadt, Germany;
Gus Hosein, London School of Economics, United Kingdom
Michael Huch, VDI/VDE Innovation + Technik GmbH, Berlin, Germany
Jan Huizenga, TNO Information and Communication Technology, Delft, The Netherlands
Pertti Huuskonen, Nokia Research Centre, Tampere, Finland
Peter Hustinx, EDPS, Brussels, BE
Maddy Janse, Philips Research, Eindhoven, The Netherlands
Achilles Kameas, Research Academic Computer Technology Institute, Patras, Greece;
Erkki Kemppainen, STAKES, Helsinki, Finland
Jay Kishigami, NTT, Japan
Takashi Kobayashi, Tokai University, Japan
Rob Van Kranenburg, Resonance Design, Belgium
Lutz Kubitschke, Empirica, Bonn, Germany
Spyros Lalis, University of Thessaly, Greece;
Marc Langheinrich, ETZ Zürich, Switzerland
Miriam Lips, Tilburg University, Netherlands;
Irene Lopez de Vallejo, University College London, United Kingdom;
Michael Lyons, BTexact Technologies, Ipswich, United Kingdom
Louis Marinos, ENISA, Heraklion, Greece
Gary T Marx, Massachusetts Institute of Technology, Cambridge, USA
Martin Meints, Independent Centre for Privacy Protection Schleswig-Holstein, Kiel, Germany
Jan Möller, Independent Data Protection Centre Schleswig-Holstein, Kiel, Germany;
Louis Neven, Twente University, The Netherlands
Gregory Neven, KU Leuven, Belgium;
Marketta Niemelä, VTT, Tampere, Finland
Andreas Pfizmann, Technical University Dresden, Germany
Olli Pitkänen, Helsinki Institute for Information Technology, Finland
Charles Raab, University of Edinburgh, United Kingdom
Michael Rader, Research Centre Karlsruhe, Germany
Bart van Rijnsoever, Philips Research, The Netherlands
Alberto Sanna, University Milan, Italy
Albrecht Schmidt, University Munich, Germany;
Reinhard Schwarz, Fraunhofer IESE, Kaiserslautern, Germany
Stefaan Seys, KU Leuven, Belgium;
Norbert Streitz, Fraunhofer IPSI, Darmstadt, Germany
Bibi van den Berg, Erasmus University Rotterdam, The Netherlands
<table>
<thead>
<tr>
<th><strong>Deliverable Summary Sheet</strong></th>
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<td><strong>Project Acronym:</strong> SWAMI</td>
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<td><strong>Project title:</strong> Safeguards in a World of Ambient Intelligence</td>
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<td><strong>Deliverable no.:</strong> 6</td>
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<td><strong>Due date:</strong> July 2006</td>
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<td><strong>Delivery date:</strong> August 2006</td>
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<td><strong>Delivery status:</strong> Public</td>
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<td><strong>Work package no.:</strong> 4</td>
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<td><strong>Leading partner:</strong> Trilateral Research and Consulting (work package leader), Fraunhofer Institute for Systems and Innovation Research (project co-ordinator)</td>
</tr>
<tr>
<td><strong>Contributing partners:</strong> All</td>
</tr>
<tr>
<td><strong>Partners owing:</strong> All</td>
</tr>
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<td><strong>Distribution Type:</strong> Public</td>
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</tbody>
</table>