D6.1.3

Dissemination

Version 1.1

WP 6.1 Dissemination Plan

Dissemination Level: Public

Lead Editor: Aenne Löhden,
                 Höchstleistungsrechenzentrum Stuttgart

04/05/05

Status: Internal Accepted

SIXTH FRAMEWORK PROGRAMME

PRIORITY IST-2002-2.3.1.18

Grid for complex problem solving

Proposal/Contract no.: 004293

Context

Activity 6	Dissemination, Liaison, Leadership and Standards
WP 6.1	Dissemination
Dependencies	See section 1.1.

Contributors: See version table below.

Reviewers: Stefan Wesner (USTUTT/HLRS).

Approved by: *Arantxa Atoro (TID), Activity 6 leader.*

Version	Date	Authors	Sections Affected
0.1	15.3.2005	USTUTT/HLRS (Robert Piotter)	Initial draft.
0.2	21.3.2005	USTUTT/HLRS (Aenne Löhden)	Amendment.
0.3	22.3.2005	USTUTT/HLRS (Aenne Löhden)	Replenishment of responsibilities.
0.4	15.4.2005	CCLRC (Julian Gallop), CRMPA (Giuseppe Cirillo), ICCS/NTUA (Antonios Litke, Dimitris Skoutas), UHOH (Radha Sawhny), UPM (Víctor Villagrá), USTUTT/HLRS (Aenne Löhden), USTUTT/RUS (Patrick Mandic)	Blending in section content drafts.
0.5	21.4.2005	See version 0.4.	Slight enhancements.
1.0	30.4.2005	CCLRC (Julian Gallop), CRMPA (Giuseppe Cirillo), UPM (Jose Ignacio Moreno) USTUTT/HLRS (Stefan Wesner, Ignaz Müller, Aenne Löhden) USTUTT/RUS (Patrick Mandic)	Roundup, make-up.
1.1	4.5.2005	USTUTT/HLRS (Stefan Wesner, Robert Piotter, Aenne Löhden)	Slight ameliorations.

License

THE WORK (AS DEFINED BELOW) IS PROVIDED UNDER THE TERMS OF THIS CREATIVE COMMONS PUBLIC LICENSE ("CCPL" OR "LICENSE"). THE WORK IS PROTECTED BY COPYRIGHT AND/OR OTHER APPLICABLE LAW. ANY USE OF THE WORK OTHER THAN AS AUTHORIZED UNDER THIS LICENSE OR COPYRIGHT LAW IS PROHIBITED.

BY EXERCISING ANY RIGHTS TO THE WORK PROVIDED HERE, YOU ACCEPT AND AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE. THE LICENSOR GRANTS YOU THE RIGHTS CONTAINED HERE IN CONSIDERATION OF YOUR ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

1. Definitions

   a. **"Collective Work"** means a work, such as a periodical issue, anthology or encyclopaedia, in which the Work in its entirety in unmodified form, along with a number of other contributions, constituting separate and independent works in themselves, are assembled into a collective whole. A work that constitutes a Collective Work will not be considered a Derivative Work (as defined below) for the purposes of this License.
   b. **"Derivative Work"** means a work based upon the Work or upon the Work and other pre-existing works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which the Work may be recast, transformed, or adapted, except that a work that constitutes a Collective Work will not be considered a Derivative Work for the purpose of this License. For the avoidance of doubt, where the Work is a musical composition or sound recording, the synchronization of the Work in timed-relation with a moving image ("synching") will be considered a Derivative Work for the purpose of this License.
   c. **"Licensor"** means the individual or entity that offers the Work under the terms of this License.
   d. **"Original Author"** means the individual or entity who created the Work.
   e. **"Work"** means the copyrightable work of authorship offered under the terms of this License.
   f. **"You"** means an individual or entity exercising rights under this License who has not previously violated the terms of this License with respect to the Work, or who has received express permission from the Licensor to exercise rights under this License despite a previous violation.

2. Fair Use Rights. Nothing in this license is intended to reduce, limit, or restrict any rights arising from fair use, first sale or other limitations on the exclusive rights of the copyright owner under copyright law or other applicable laws.

3. License Grant. Subject to the terms and conditions of this License, Licensor hereby grants You a worldwide, royalty-free, non-exclusive, perpetual (for the duration of the applicable copyright) license to exercise the rights in the Work as stated below:

   a. to reproduce the Work, to incorporate the Work into one or more Collective Works, and to reproduce the Work as incorporated in the Collective Works;
   b. to distribute copies or phonorecords of, display publicly, perform publicly, and perform publicly by means of a digital audio transmission the Work including as incorporated in Collective Works.

c. For the avoidance of doubt, where the work is a musical composition:
   i. **Performance Royalties Under Blanket Licenses**. Licensor waives the exclusive right to collect, whether individually or via a performance rights society (e.g. ASCAP, BMI, SESAC), royalties for the public performance or public digital performance (e.g. webcast) of the Work.
   ii. **Mechanical Rights and Statutory Royalties**. Licensor waives the exclusive right to collect, whether individually or via a music rights society or designated agent (e.g. Harry Fox Agency), royalties for any phonorecord You create from the Work ("cover version") and distribute, subject to the compulsory license created by 17 USC Section 115 of the US Copyright Act (or the equivalent in other jurisdictions).
d. **Webcasting Rights and Statutory Royalties**. For the avoidance of doubt, where the Work is a sound recording, Licensor waives the exclusive right to collect, whether individually or via a performance-rights society (e.g. SoundExchange), royalties for the public digital performance (e.g. webcast) of the Work, subject to the compulsory license created by 17 USC Section 114 of the US Copyright Act (or the equivalent in other jurisdictions).

The above rights may be exercised in all media and formats whether now known or hereafter devised. The above rights include the right to make such modifications as are technically necessary to exercise the rights in other media and formats, but otherwise you have no rights to make Derivative Works. All rights not expressly granted by Licensor are hereby reserved.

4. Restrictions. The license granted in Section 3 above is expressly made subject to and limited by the following restrictions:

a. You may distribute, publicly display, publicly perform, or publicly digitally perform the Work only under the terms of this License, and You must include a copy of, or the Uniform Resource Identifier for, this License with every copy or phonorecord of the Work You distribute, publicly display, publicly perform, or publicly digitally perform. You may not offer or impose any terms on the Work that alter or restrict the terms of this License or the recipients' exercise of the rights granted hereunder. You may not sublicense the Work. You must keep intact all notices that refer to this License and to the disclaimer of warranties. You may not distribute, publicly display, publicly perform, or publicly digitally perform the Work with any technological measures that control access or use of the Work in a manner inconsistent with the terms of this License Agreement. The above applies to the Work as incorporated in a Collective Work, but this does not require the Collective Work apart from the Work itself to be made subject to the terms of this License. If You create a Collective Work, upon notice from any Licensor You must, to the extent practicable, remove from the Collective Work any reference to such Licensor or the Original Author, as requested.
b. If you distribute, publicly display, publicly perform, or publicly digitally perform the Work or Collective Works, You must keep intact all copyright notices for the Work and give the Original Author credit reasonable to the medium or means You are utilizing by conveying the name (or pseudonym if applicable) of the Original Author if supplied; the title of the Work if supplied; and to the extent reasonably practicable, the Uniform Resource Identifier, if any, that Licensor specifies to be associated with the Work, unless such URI does not refer to the copyright notice or licensing information for the Work. Such credit may be implemented in any reasonable manner; provided, however, that in the case of a Collective Work, at a minimum such credit will appear where any other comparable authorship credit appears and in a manner at least as prominent as such other comparable authorship credit.

5. Representations, Warranties and Disclaimer

UNLESS OTHERWISE MUTUALLY AGREED TO BY THE PARTIES IN WRITING, LI-CENSOR OFFERS THE WORK AS-IS AND MAKES NO REPRESENTATIONS OR WAR-RANTIES OF ANY KIND CONCERNING THE MATERIALS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTIBILITY, FITNESS FOR A PARTICULAR PURPOSE, NONIN-FRINGEMENT, OR THE ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OF ABSENCE OF ERRORS, WHETHER OR NOT DISCOVERABLE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO SUCH EXCLUSION MAY NOT APPLY TO YOU.

6. Limitation on Liability. EXCEPT TO THE EXTENT REQUIRED BY APPLICABLE LAW, IN NO EVENT WILL LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAM-AGES ARISING OUT OF THIS LICENSE OR THE USE OF THE WORK, EVEN IF LICEN-SOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

7. Termination

a. This License and the rights granted hereunder will terminate automatically upon any breach by You of the terms of this License. Individuals or entities who have received Collective Works from You under this License, however, will not have their licenses terminated provided such individuals or entities remain in full compliance with those licenses. Sections 1, 2, 5, 6, 7, and 8 will survive any termination of this License.

b. Subject to the above terms and conditions, the license granted here is perpetual (for the duration of the applicable copyright in the Work). Notwithstanding the above, Licensor reserves the right to release the Work under different license terms or to stop distributing the Work at any time; provided, however that any such election will not serve to withdraw this License (or any other license that has been, or is required to be, granted under the terms of this License), and this License will continue in full force and effect unless terminated as stated above.

8. Miscellaneous

a. Each time You distribute or publicly digitally perform the Work, the Licensor offers to the recipient a license to the Work on the same terms and conditions as the license granted to You under this License.

b. If any provision of this License is invalid or unenforceable under applicable law, it shall not affect the validity or enforceability of the remainder of the terms of this License, and without further action by the parties to this agreement, such provision shall be reformed to the minimum extent necessary to make such provision valid and enforceable.

c. No term or provision of this License shall be deemed waived and no breach consented to unless such waiver or consent shall be in writing and signed by the party to be charged with such waiver or consent.

d. This License constitutes the entire agreement between the parties with respect to the Work licensed here. There are no understandings, agreements or representations with respect to the Work not specified here. Licensor shall not be bound by any additional provisions that may appear in any communication from You. This License may not be modified without the mutual written agreement of the Licensor and You.

Table of Contents

List of Figures

List of Tables

Abbreviations

AAA	Authentication, Authorization and Accounting
A4C	Authentication, Authorization, Accounting, Auditing and Charging
Akogrimo	Access To Knowledge through the Grid in a Mobile World
D*x.y.z*	Deliverable
EAP	Extensible Authentication Protocol
FAQ	Frequently Asked Question
GGF	Global Grid Forum
GT4	Globus Toolkit Version 4
GUI	Graphical User Interface
ID*x.y.z*	Internal Deliverable
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IPv6	Internet Protocol version 6
MDVO	Mobile Dynamic Virtual Organisations
MIPv6	Mobile IPv6
NGG	Next Generation Grid
OASIS	Organization for the Advancement of Structured Information Standards
OGSA	Open Grid Service Architecture
PANA	Protocol for carrying Authentication for Network Access
PBNM	Policy-based Network Management
P2P	Peer-to-Peer
QoS	Quality of Service
RSS	Rich Site Summary (RSS 0.9x) RDF Site Summary (RSS 0.9, 1.0) Really Simple Syndication (RSS 2.x)
SAML	Security Assertions Markup Language

SIP	Session Initiation Protocol
SLA	Service Level Agreement
UMTS	Universal Mobile Telecommunications System
VO	Virtual Organisation
WLAN	Wireless Local Area Network
WP*x.y*	workpackage
WSRF	WS-Resource Framework
XACML	eXtensible Access Control Markup Language
XML	eXtensible Markup Language

1.   Executive Summary

This document outlines the dissemination plan of the Akogrimo project. The document analyses and identifies the different target fields and groups for dissemination. This includes also the possibilities to reach the identified groups.

The dissemination strategy is based on analysing the following issues:

- dissemination of the overall theme or of specific technical details (subject areas)

- dissemination towards a broad public or towards selective expert groups (target groups)

- dissemination for awareness (making the project's work known), for understanding (entering discussions), or for action (influencing practices/products/standards) (detail levels)

- dissemination channels (which media to use)

- dissemination at any time or observing other dates (time segments)

These points are confronted and coalesced to form the dissemination strategy.

Accomplished and planned dissemination activities as well as dissemination material are listed in the annex.

1.1.   Deliverables and Work Package Relations

This dissemination work package (WP6.1) comprises the following deliverables:

- D6.1.1 Project Web-Site (see section A.1.6)

- D6.1.2 Project Presentation

- D6.1.3 Dissemination Plan (this document)

- D6.1.4 Report on liaison and dissemination activities

As a matter of course dissemination is no stand-alone exercise. This work package utilises output of and provides input to other work packages.

Every work package potentially produces contents to disseminate. Especially the following work packages and deliverables are to be mentioned:

- WP2.1 Market and Regulations:
    - o   D2.1.1 The Akogrimo Market Players (M03)
- WP2.2 Environment & Project Vision:
    - o   ID2.2.1 Initial Report on the Socio-Economic Environment (M03)
    - o   D2.2.1 Report on the Socio-Economic Environment (M08)
- WP2.3 Testbed Definition
    - o   D2.3.1 Testbed Description (M06)
- WP3.2 Business Modelling Framework
    - o   ID3.2.1 Report on the Survey on Current Business Models (M06)
    - o   D3.2.1: The Akogrimo consolidated Value Chain (M12)

- WP6.2 Standardisation
- WP 6.3 Exploitation
  - ID6.3.1 Market Study (M10)

The achievements of this work package (WP6.1) are considered beneficial for the following work packages and deliverables:

- WP3.2 Business Modelling Framework
- WP6.3 Exploitation
- WP6.4 Collaboration
- WP6.5 Impact Assessment

2. Dissemination Products and Groups

Dissemination is concerned with creating publicity for the project. The strategy is addressing the following facets of dissemination:

- the aim (why)

- the matters (what)

- the audience (who)

- the media (how)

- the time (when)

A starting point for the derivation of a dissemination strategy is the consortium members with their background or Akogrimo-focus respectively as well as the general subjects-matters of Akogrimo.

Standardisation engagement, EC projects liaison, and training lectures are in itself dissemination; since they are covered in other work packages (WP6.2 Standardisation, WP6.4 Collaboration, WP8.1 Training), they are not considered in the dissemination strategy. Associated activities and results will, as they come up, be collected in the forthcoming deliverable D.6.3.2 "Report on liaison and dissemination activities" in PM 18.

2.1. Dissemination Products

The Akogrimo project will produce different types of results that will be potential subject for wider dissemination. The following sections list the identified dissemination relevant artefacts.

Major Akogrimo results, as identified in the Description of Work, are:

1. The Architecture blueprint

2. The middleware software for the different layers

3. The application related software of the testbeds

4. The Akogrimo framework for service provision in different industrial and public sectors

5. Knowledge transfer and consulting
   (this is understood as exploitation enabler for point 4 but of course needs to be disseminated partially independent from the others)

Based on this, the following dissemination products are identified:

- technology (considering jointly items 1 and 2 from above)

- deployment (regarding item 3 from above)

- methods and tools

- Akogrimo framework (regarding item 4 from above, constituting more a useable product as single modules or results as understood by the other items)

Across the different fields the following groups of dissemination products are identified:

- Knowledge and best practice (architecture, application development and adaptation, …)

- Software (infrastructure services, applications, and tools)

These elements are reflected in the large number of public deliverables of the project, which all will contain executive summaries guiding interested readers on what the document holds for them.

2.1.1. Technology

The major items to be disseminated in this field are the developed architecture and the software elements developed mainly in Activity 4. This section provides a short description of these items.

- **Akogrimo Architecture Blueprint:** As of now no coherent Grid architecture or guidelines and best practice in the realisation for Grids do exist. This is in particular true for mobile Grids. For this reason we do expect a large interest in this outcome from the project. The architecture developed in this project will show how to integrate technologies from different worlds solving many problems preventing existing Grid solutions from being taken up by a large number of users and service providers.

- **Enhanced Mobile Network Layer:** It is assumed that network infrastructure providers plan to provide in the near future rich service platforms instead of basic bandwidth provision infrastructures. The extensions and developments of the software of this layer will be able to show the feasibility of this approach.

- **Network Middleware Layer:** This layer as boundary between Grid service's layers and network layer will provide, as an example, solutions for the integration of session and communication management paradigms in the network layer (e.g. Session Initiation Protocol, SIP) and session management on virtual organisational level. Another example is the context management and the integrated view on local and remote services.

- **Grid Infrastructure Services:** Akogrimo is not developing a new middleware from scratch but is using existing Grid toolkits such as WSRF.NET and GT4 as much as possible. However several additional components are needed to provide a reliable infrastructure that is addressing the needs of business to business interaction and also the additional challenges introduced by mobility. Other important elements are SLA Management and Execution Management.

- **Grid Application Support Layer:** Besides components in the infrastructure level Akogrimo is developing components that are supporting distributed applications deployed in this infrastructure in general. This includes solutions for workflow management as well as Session Initiation Protocol management elements.

2.1.2. Deployment Areas

This section deals with potential application fields where the Akogrimo platform could be useful and, hence, worth for dissemination. The most important ones are:

- **E-Learning**, with some new pedagogical features such as collaboration, personalisation, learner-centricity, context-awareness, realism, personal learning profiles, personal special needs, ubiquity, accessibility and availability. In order to create a framework which can support these features we need to use the key concepts of services, semantics and standards. Akogrimo will provide support for these new e-learning paradigms which need Grid infrastructures and their enabling concepts, and a mobile environment where learners, resources and teachers could be nomadic or mobile.

- **E-Health**, in order to solve problems of resource sharing by virtualisation of distributed resources while implementing access policies. Accessibility must be continuous, 24 hours a day. High performance computing is a requirement. Added value from parallelism and computing is sought, not just federated databases. Real-time image composition, for example, is a real need nowadays. So, Akogrimo will provide to these kinds of applications their needed Grid infrastructure in a mobile environment (for patients, doctors, resources, etc.).

- **Disaster and Crisis Handling**, to get a complete view of the situation as soon as possible, and to provide the right information at the right time to the right persons such that optimal decisions can be made. Challenges arise due to the scale and complexity of the problem domain, the diversity of data and data sources. Establishing ad-hoc Mobile Dynamic Virtual Organisations (MDVOs) for collaboration, cooperation and resource sharing across organisational boundaries involves people from many different organisations. Mobile Grid technology as the Akogrimo platform can provide support for multi-organisational collaboration and resource sharing in space and time for teams dealing with different challenges, and allowing faster access to accurate information across administrative boundaries.

- **Teleworking**, for some big companies like aerospace, automobile, chemistry sector, petrol, engineering and others, where some experts can be in different places than the real work is done. These experts use techniques to study the real work and help their colleagues. The Grid can be viewed as one intra-Grid that belongs to all the company as a collaborative environment, where some teleworkers are mobile and nomadic resources of this Grid. Akogrimo will provide support for this new corporate mobile Grid, based on an advanced knowledge management system, as an improved substitute of the current corporate intranet.

- **Forecasting**, for maritime weather forecast or traffic forecast, it is obvious that the Grid is necessary to calculate and predict traffic or weather. Some parameters like current measures should be taken into account meaning that a direct communication with measurement centres is essential. Akogrimo could provide the needed infrastructure for these applications where an access to a Grid infrastructure is needed and some of the nodes of this infrastructure are mobile and nomadic such as e.g. weather sensors in boats.

- **Logistics**, for distribution companies, which in order to optimise the resources and better manage the trucks, boats, planes, etc. the Akogrimo platform can be used for determining the best route, load optimisation, decrease the response time, reduce the delay in deliveries, real-time adaptation, and so on. Nodes of the company are mobile and nomadic and all of them belong to the Virtual Organisation needed for the resources optimisation.

- **Tourism/Leisure**, providing to the people mobile and context aware information (ubiquitous and pervasive), performing actions while a person is travelling, taking into account spatial and temporal information in a contextualised way. Wherever a person is located, a Mobile Dynamic Virtual Organisation could be set up in order to provide tourism and leisure information specific for that person (taking into account his context) and for his location (dynamically discovering services which can be included in the Virtual Organisation). Akogrimo can provide the infrastructure that fits all these needs.

2.1.3.   Methods and Tools

Methods and supporting tools of the following kinds will be realised:

- Method and Graphical Evolution Tool: The major outcome of this activity is the extension and adaptation of the tool Adonis allowing the application developers within the project and also outside the project to model their distributed applications combined with the generation of the needed data for the later deployment.

- Supporting Tools: As the WP5.2 Testbed Realisation has not yet started no final decision on additional supporting tools has been taken. However it is expected that such tools are general supporting tools for any Web Service oriented environment and not limited particularly to the Akogrimo software.

2.1.4. Akogrimo Framework

In a later stage of the project the results of the individual WPs and Activities will be integrated constituting a framework for service provision and distributed applications in an environment where mobility and user context elements are considered appropriately. This element will play a major role for dissemination in the final phase of the project when the final demonstrator is deployed using this developed framework. It is listed as separate dissemination item as different target groups for the integrated framework as for the individual subsystems are envisaged.

2.2. Target Groups

Identifying target groups is a major step in deriving the dissemination strategy. Collecting and evaluating feedback from target audiences improves the project impact. Target groups can be seen in the main categories research and business/industry as well as government.

For these general groups a more detailed description is provided ("who?"). Additionally an unfiltered list of relevant events or media is provided ("where and how?").

The target group "general public" is not further investigated. Besides the web site, public papers and the video no further specific actions are planned.

2.2.1. Research Community

The following description is divided into two major groups, namely the distributed systems community (with focus on Web Services and Grids) and the network community with focus on mobile and Next Generation Networks. Each of these groups is further detailed and described.

2.2.1.1. Distributed Systems (Web Services and Grids)

The **Grid group** leverages standardisation and use of the service oriented Grid technology. The main goal is to overcome problems of security, orchestration, VO management, P2P computing, QoS management, etc. in static and dynamic mobile environments. Akogrimo will provide its problem signature and problem solution experience as means to regard in others works.

Grid-Security: is concerned with various issues relating to authentication, authorisation, accounting, and privacy. The existing approaches of providing security on the middleware layer and application layer can only be seen as intermediate solutions and are not suitable for addressing the needs of nomadic and mobile users. Akogrimo is going to define a security behaviour and its monitoring in a vertical AAA subsystem taking into account the mobility and dynamicity of grid environment, reducing the complexity of the security mechanism in the Grid infrastructure layer and avoiding the co-existence of several independent infrastructures. This group can involve the following entities:

- GGF GRID SEC

- Central-European Grid Consortium (http://www.cyf-kr.edu.pl/cegc/)
- Globus Alliance (www.globus.org)
- Grid Security Working Group of Enterprise Grid Alliance (http://www.gridalliance.org/-en/WorkingGroups.asp)
- European Technical Groups: Trust and Security (TG6)

Grid-Architecture: is concerned with individuation and design of a mobile and context aware grid architecture utilising the concept expressed by the Open Grid Service Architecture (OGSA) and oriented along issues of the Next Generation Grid. Current Grid architectures are designed for an optimised usage of resources which means today to use as many resources as possible in order to optimise execution time or storage performance. In a commercial oriented setting, there is the need for other optimisation strategies such as e.g. to minimise the price, or to use only resources offered by organisations where the user has undersigned contracts. The objectives of the Akogrimo architecture are to overcome these actual limitations, to extend the concept from computation Grids to knowledge Grids (eventually leading to a semantic Grid), to allow personalised services, to add location awareness, etc.. This group can involve the following entities:

- GGF ARCH
- China Knowledge Grid Research (http://kg.ict.ac.cn/)
- Cognitive Grids (http://www.isi.edu/ikcap/cognitive-grids/)
- Nordic Grid Consortium (http://www.nordicgrid.net/index.html)
- Central-European Grid Consortium (http://www.cyf-kr.edu.pl/cegc/)
- Globus Alliance (www.globus.org)
- European Technical Groups: Grid Architecture (TG1)

Semantic Grid: The goal of this group is to realise the added value of Semantic Web technologies for Grid users and developers. A semantically sound and accepted model of grid services and resources is required not only for enabling seamless interoperability among grid networks, but it is also required for allowing better user understanding of the nature and capability of existing services. Akogrimo's aim is to design and develop models and mechanisms that make possible access to heterogeneous resources (computational, human and knowledge resources) in the environment of the NGG. This group can involve the following entities:

- GGF OGSA Resource Usage Service
- Semantic Grid Community (http://www.semanticgrid.org/)
- Cognitive Grids (http://www.isi.edu/ikcap/cognitive-grids/)
- Central-European Grid Consortium (http://www.cyf-kr.edu.pl/cegc/)
- Globus Alliance (www.globus.org)
- HUST CGL Semantic Grid (http://grid.hust.edu.cn/semantic/index.htm)
- European Technical Groups: Semantic Grid (TG7)
- European Technical Groups: Business Services and Workflow (TG8)

Virtual Organisations: in Akogrimo exhibit the ability to dynamically adapt the organisational structure to changing local situations (context awareness, availability of shared mobile resources), for instance in response to the market place or to the entitie's mobility (e.g. mobile device), to dynamically establish and process complex workflows based upon Grid infrastructure and Grid services, and to access data from distributed, sometimes even mobile databases. This group can involve the following entities:

- Intelligence, Agents, Multimedia (IAM) Group (http://www.iam. ecs.soton.ac.uk/)
- Central-European Grid Consortium (http://www.cyf-kr.edu.pl/cegc/)
- Globus Alliance (www.globus.org)

- European Technical Groups: Trust and Security (TG6)

SLA Management: is concerned with individuation of a Service Level Agreement system for the definition, negotiation, control and management of SLAs. Some problems in the actual context are that there exists no direct contractual relationship between a user of a complex grid service and the various third party service providers providing parts of the overall service. Akogrimo will provide its view of SLAs related to all layers in the Akogrimo architecture, deriving the featuring information from the (mobile) network layer till the application layer. This group can involve the following entities:

- Central-European Grid Consortium (http://www.cyf-kr.edu.pl/cegc/)
- Globus Alliance (www.globus.org)
- HUST CGL Semantic Grid (http://grid.hust.edu.cn/semantic/index.htm)

The main effort of **Web Service group** is to individuate semantics for manageable data. The group will leverage authorization work that is ongoing in the Web services world (e.g. SAML, XACML, the WS Security suite) and define specification for how these should be used for Grid services.

It is impossible to list all relevant working groups or research areas in detail here. No further differentiation will be made because the dissemination strategy in research is anyway not significantly different in the different domains.

2.2.1.2.   Mobile and Modern Networks

Network-Mobility: The introduction in Akogrimo of mobility extended to VOs and similar fields, which have not been typically considered up to now, involves the development of a new architecture in which Grid applications need to be aware of network issues such as network availability, change of network characteristics, change of context, and is able to interact with it (e.g: a certain QoS may be required from the Grid layer), due to the changing nature of the environment when mobility comes on stage. Akogrimo will support different types of mobility: user mobility, session mobility and terminal mobility. To this end protocols like SIP and MIPv6 will be used, enriched by context information in order to give an absolute meaning to the location of the communicating user/node. This group can involve the following entities:

- SIP IETF WG (http://www.ietf.org/html.charters/sip-charter.html)
- MIP6 IETF WG (http://www.ietf.org/html.charters/mip6-charter.html)
- SIMPLE IETF WG (http://www.ietf.org/html.charters/simple-charter.html)
- Open Mobile Alliance (http://www.openmobilealliance.org/)
- IPv6 Forum (http://www.ipv6forum.com/)

Network-Architecture: It is a fact that IPv6 is the protocol that will replace IPv4 in a near future. This transition will be performed gradually as related technologies and applications become IPv6 capable and network providers and companies become aware of the importance of this switch. In this sense Akogrimo leverages the use of IPv6 in the world by making use of it in applications (e.g. Grid applications) but without dropping other legacy applications that only work with IPv4. Akogrimo establishes a general administration system based on A4C (extending the IETF's AAA) on top of IP making this administration access media independent (UMTS, WLAN…). A4C will be the structure that will centrally give support to different network components such as QoS, PBNM, Service discovery or SIP, as well the vertical structure that will handle the correct flow between networks and Grids. This group can involve following entities:

- IP6 IETF WG (http://www.ietf.org/html.charters/ipv6-charter.html)
- IPv6 Forum (http://www.ipv6forum.com/)
- AAA IETF WG (http://www.ietf.org/html.charters/aaa-charter.html)

Network-Security: Akogrimo leverages the use of an A4C as a corner stone of the commercialization of the networks as a vertical issue in which not only network aspects are involved but also other fields from the Grid layer. For example, up to know equivalent procedures where done redundantly at different layers, such as authentication, that was performed at the network layer independently of the subsequent authentications made at other layers. By adopting a proper identity management structure, Single Sign On mechanisms will be supported in Akogrimo. The security architecture will take into account the MDVO concept and extended it vertically to the network layer. This group can involve the following entities:

- PANA IETF WG (http://www.ietf.org/html.charters/pana-charter.html)
- EAP IETF WG (http://www.ietf.org/html.charters/eap-charter.html)
- AAA IETF WG (http://www.ietf.org/html.charters/aaa-charter.html)
- Liberty Alliance Project (http://www.projectliberty.org/)
- Shibboleth (http://shibboleth.internet2.edu/)
- OASIS Security Services (SAML) TC: (www.oasis-open.org/committees/security/)

2.2.1.3. Other groups

Pervasive Computing: Due to the mobile nature of Akogrimo new mechanisms of service discovery need context management are to be considered in order to support the mobility and changes of context of not only of users but also of services. The work developed in Akogrimo can be of interest for groups working in this field. This group can involve the following entities:

- IEEE Computer Society (http://www.computer.org/)
- Association for Computing Machinery (http://www.acm.org/)

Grids for networkers: This target group embraces those whose activity is developed mainly in networking environment fields with a special interest and focus on Grids. These are typically non Grid experts that are interested in them from the network perspective.

2.2.1.4. Events and Media

Target Group	Events and Media
*	- Communicating European Research 2005 (CER2005). 14-15 Nov 2005. http://europa.eu.int/comm/research/conferences/2005/-cer2005/index_en.html
Grid-*	- International Conference on GRID Networks and Services. 25-30 Sep 2005, Sillicon Valley, USA. - 2nd International Conference on Grid Service Engineering and Management. 19-22 Sep 2005, Erfurt, Germany. - 1st WSEAS International Symposium on GRID COMPUTING. 17-19 Aug 2005, Corfu Island, Greece. - International Conference on GRID Networks and Services. 25-30 Sep 2005, Sillicon Valley, USA. - European Grid Technology Days 2005. Brussels. - European Grid Conference EGC2006. http://genias.biz/egc2006/ - International Conference on Grid and Cooperative Computing. 30-3 Nov/Dec 2005, Beijing, China. - Future Generation Computer Systems, The international Journal of grid Computing: Theory, Methods and Applications. http://ees.elsevier.com/fgcs/ - Journal of Grid Computing. http://www.springeronline.com - International Journal of Web and Grid Services (IJWGS). https://www.inderscience.com - IBM Journal of Research and Development. http://www.research.ibm.com/journal/
Grid-Security	- iTrust2006 - International Conference on Trust Management. http://www-rocq.inria.fr/arles/events/iTrust2005/
Grid-Architecture	- 14th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2005). 13-15 Jun 2005, Linkoping, Sweden. - International Workshop on Context Aware Networks Technologies and Applications (CANET'05). Held in conjunction with the 5th International and Interdisciplinary Conference on Modeling and Using Context. 5 Jul 2005, Paris, France. - Smart Grid Technologies (SGT05). Fourth International Joint Conference on Autonomous Agents and Multiagent Systems. (AAMAS 2005). 25-29 Jul 2005, Utrecht, The Netherlands. - Personal and Ubiquitous Computing (http://www.personal-ubicomp.com/)
Grid-Semantic Grid	- Cluster Computing and Grid (CCGrid) Conference 2005. Workshop 3: Semantic Infrastructure for Grid Computing Applications Workshop. 9-12 May 2005, Cardiff, UK. - 9th WSEAS International Conference on COMPUTERS. 14-16 Jul 2005, Athens, Greece. - 14th IEEE International Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2005). 13-15 Jun 2005, Linkoping, Sweden. - The Second International Workshop on Grid Computing and its Application to Data Analysis (GADA'05). Agia Napa, Cyprus, 31-4 Oct/Nov 2005.
Grid-VO	- eJOV - the electronic Journal of Organizational Virtualness. http://www.ve-forum.org/
Grid-SLA	- Cluster Computing and Grid (CCGrid) Conference 2005. Workshop 8: 1st International Workshop on Grid Performability.

Target Group	Events and Media
Management	
Web Services	- World Wide Web Conference 2006 (WWW2006). 23-26 May 2006, Edinburgh, UK. http://www.ecs.soton.ac.uk/~lac/WWW2006/ - The 9th International EDOC Conference (EDOC 2005) "The Enterprise Computing Conference". 19-23 Sep. 2005, Enschede, The Netherlands. http://edoc2005.ctit.utwente.nl/ - W3C Workshop on Frameworks for Semantics in Web Services. Digital Enterprise Research Institute (DERI). 9-10 Jun, 2005, Innsbruck, Austria. - ISWC 2005, 4th International Semantic Web Conference. 6-10 Nov 2005, Galway, Ireland. http://iswc2005.semanticweb.org/ - International Journal of Web and Grid Services (IJWGS). https://www.inderscience.com - Journal of web semantics. http://www.websemanticsjournal.org/ps/pub/welcome
Network-Mobility	- International SIP 2006: Going Wireless. 21-24 Feb 2006, Paris, France. - Communications Review. (ACM SIGMOBILE)
Network-Architecture	- Global IPv6 summit. 6-10 Jun 2005, Barcelona, Spain. - The 25th Annual Joint Conference of the IEEE Communication Society. 23-29 Apr, Barcelona, Spain. - 8th International Conference on Telecommunications. 15-17 Jun 2005, Zagreb, Croatia.
Network Security	- ICETE. 2nd International Conference on E-business and Telecommunication Networks. 3-7 Oct 2005, Reading, UK. - 2005 IFIP Networking Conference. 2-6 May 2005, Waterloo, Ontario, Canada. - IEEE MWCN 2005. 7th IEEE International Conference on Mobile and Wireless Communications Networks. 19-21 Sep 2005, Marrakech, Morocco. - 5th International Network Conference. Doryssa Bay Resort. 5-7 Jul 2005, Samos Island, Greece. - TERENA Networking Conference 2005. 6-9 Jun 2005, Poznan, Poland. - Industrial Conference on Convergent Services and Next Generation Networks. 25-30 Sep 2005, Silicon Valley, USA. - The 25th Annual Joint Conference of the IEEE Communication Society. 23-29 Apr, Barcelona, Spain.
Pervasive Computing	- MobiQuitous 2005. 17-21 Jul 2005, San Diego, CA, USA. - Intellcomm 2005. 17-19 Oct, Montreal, Canada. - ISWC2005, the ninth annual IEEE International Symposium on Wearable Computers.18-21 Oct 2005, Osaka, Japan. ttp://www.cc.gatech.edu/ccg/iswc05/ - IST4Balt, Evolving Mobile Europe. 24-25 Oct 2005, Vilnius, Lithuania. http://lazdynas.homeip.net:9673/IST4BALT/-ist4balt_conferences/2005_infobalt/)
Grids for networkers	- Internetworking 2005. 28-29 Jul 2005, Paris, France. - 5th International Network Conference. Doryssa Bay Resort. 5-7 Jul 2005, Samos Island, Greece. - TERENA Networking Conference 2005. 6-9 Jun 2005, Poznan, Poland. - Intellcomm 2005. 17-19 Oct, Montreal, Canada. - The 25th Annual Joint Conference of the IEEE Communication Society. 23-29 Apr Barcelona, Spain.

2.2.2. Business/Industry

2.2.2.1. Network Infrastructure Provider

The network infrastructure includes all elements needed to provide the client access to a network. This product is to be extended in many ways by providing additional related services (e.g. DNS, storage, agenda for the cellular) or different qualities (e.g. bandwidth, delay) on one hand, and totally differentiated services such as telephony or mobile telephony on the other. The work developed in Akogrimo is important for this group since it provides the network infrastructure sector with more power than just being a bridge that hands bits over to other components of the value chain (that would probably not cover the expenses of the UMTS licences …). Akogrimo makes the network infrastructure a key component. In the network infrastructure we can distinguish three groups.

- Network Equipment Provider: Provides all the necessary technology to build a network. This could include: antennas, base stations, radio network controllers, lines, modems, routers and so on.
- Network Access Provider: Based on the technology acquired from the network equipment providers, the network access provider offers basic connectivity for regular telephony, cellular telephony, WLAN or any other kind of network access.
- Network Service Provider: This provider offers services on top of the basic network access, such as telephony or connectivity to internet.

2.2.2.2. Mobile Grid Infrastructure Provider

The mobile Grid infrastructure embraces Grid related fields of high importance in Akogrimo, since it is a Grid based project. We can distinguish different groups:

- Grid Equipment Provider: Provides physical equipment to perform any kind of Grid related activity.
- Grid Resource Provider: Offers resources such as computational power or storage.
- Grid Operator: Aggregates Resources and offers programs, booking services, monitoring, logging in order to use such resources.

2.2.2.3. Application and Aggregated Service Provider

Application and Aggregated Service Provider[1] is a third-party entity that manages and distributes software-based services and solutions to customers across a wide area network. In essence, ASPs are a way for companies to outsource some or almost all aspects of their information technology needs. They may be commercial ventures that cater to customers, or not-for-profit or government organizations, providing service and support to end users. From the Mobile Grid perspective, these sub categories of ASP's can serve as a major advantage and incentive. This stems from the user's needs or requirements, depending on which that particular ASP can automatically be the contact point for service provision. Mobility and users constantly changing requirements as they are moving helps to identify a perpetually changing set of basic services that come into consideration. ASPs can be broken down into five subcategories:

---

[1] The term Aggregated Service Provider is used in order to differentiate this term clearly from the original meaning from Application Service Provision where a full fledged, statically combined application was provided. Here the dynamic combination of services to higher level services is included as well.

- Enterprise ASPs -- deliver high-end business applications.
- Local/Regional ASPs - supply wide variety of application services for smaller businesses in a local area.
- Specialist ASPs - provide applications for a specific need, such as Web site services or human resources.
- Vertical Market ASPs - provide support to a specific industry, such as healthcare.
- Volume Business ASPs - supply general small/medium-sized businesses with pre-packaged application services in volume.

2.2.2.4. Content Provider

Before the final stage of content provision, the development of content goes through various preliminary stages.

- Content Creator – Consists of news, database information sources, products and entertainment such as CNN develop new content, products, or services. Web content comes in many forms: news, entertainment, transactions, and database information. Content originators own copyrights to the material they create and license and distribute it either directly to carriers and portal companies themselves or in partnership with a middleman.
- Content Aggregator – Consists of content syndication and enhancement, content development, and hosting. Aggregators, such as Infospace, package the work of creators into packages or bundles for distribution. Content aggregators function as middlemen between the content originators and the distributors. Aggregators license local, regional, national, and global content from its creators, then package, house, and format it for use by specific devices and networks. Aggregators provide value to the content originators by negotiating intricate and time-consuming distribution deals with individual carriers, resulting in wider content distribution. For the carriers, content aggregators create turnkey mobile data applications by combining content from numerous sources and integrating it into a single interface.
- Content Distributor – Consists of content fulfilment and optimization services, synchronization services, assurance and security services. Distributors, such as Yahoo!, then take the content packages or bundles and deliver them to buyers. To generate revenues, content aggregators must deliver the content they provide through new distribution channels. Content distributors provide the aggregators with the ability to publish their content on different networks, devices, and operating systems. Distributors support and develop applications for a wide variety of wireless protocols. Examples include cHTML and WAP applications, which use different programming standards to enable mobile devices to display Internet-based information. Content distributors also offer content delivery services, which help to enrich the end user's wireless experience. Content delivery capabilities include:
Synchronisation services that enable data transfers over unreliable networks
Optimization services, which compress data and thus speed the delivery to users in a bandwidth-constrained environment
Security services that encrypt information as it travels over the network and authenticates users before granting them permission to access various content assets

From the perspective of the Content Provider, Akogrimo can provide "customised" content services based on the demands/requirements of the user.

2.2.2.5. Access Provider

Access Provider - Network operators, wireless Internet service providers, portal operators, and pure-play mobile portals. Access portals, such as AOL, are where the buyers and sellers actually conduct their transactions. Access portals are the windows into the mobile world through which customers access the content. Access portals are of three types: wireless operators like Verizon Wireless, Internet service providers like AOL Time Warner and MSN, and hybrid operators such as Yahoo!.

2.2.2.6. Events and Media

Target Group	Events and Media
Network Infra-structure	- SuperComm 2005. Annual exhibition and conference for Communications Service Providers and Private Network Managers. 6-9 Jun 2005, Chicago, US. http://www.supercomm2005.com/ - Networld Interop. Network Infrastructure & Services Conference. 3-5 May 2005, Las Vegas, USA. http://interop.com/lasvegas/-conferences/?s=network_infrastructure - International Symposium on Wireless Network Systems. 26-28 Sep 2005. http://www.engineer-bh.com/iswsn/intro.htm - WTS 2005 Wireless Telecommunications Symposium. Focus on Next Generation Wireless Communications. 28-30 Apr 2005, Pomona, California, USA. http://www.csupomona.edu/~wtsi/ - Networld Interop. Wireless Conference. 3-5 May 2005, Las Vegas, USA. http://interop.com/lasvegas/conferences/?s=wireless - IEEE International Symposium on "A World of Wireless, Mobile and Multimedia Networks" (WOWMOM). 13-16 Jun 2005, Taormina-Giardini, Naxos, Italy. http://cnd.iit.cnr.it/wowmom2005/ - HealthCom 2005 - 7th International Workshop on Enterprise Networking and Computing in Healthcare Industry. 23-25 Jun 2005, Buslan, Korea. - International Conference on Computer Networks and Mobile Computing (ICCNMC). 2-4 Aug 2005, Hunan, China. http://iccnmc2005.edu.cn - International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob). 22-24 2005, Montreal, Canada. http://www.congresbcu.com/wimob2005/ - 2nd International Symposium on Wireless Communication Systems 2005 (ISWCS2005). 5-7 Sep 2005 Siena, Italy. http://www.iswcs.org/iswcs2005/ - 7th International Workshop on Mobile Wireless Communications Networks - (MWCN '05). 19-21 Sep 2005, Marrakech, Morocco. http://www.ctr.kcl.ac.uk/mwcn2005/
Mobile Grid Infrastructure	- IST Mobile & Wireless Communications Summit. 19-23 Jun 2005, Dresden, Germany. http://www.mobilesummit2005.org/ - 2nd International Symposium on Wireless Communication Systems 2005 (ISWCS2005). 5-7 Sep 2005 Siena, Italy. http://www.iswcs.org/iswcs2005/ - Wireless and Mobile World Expo Wireless & Mobile WorldExpo. 18-19 May 2005, Toronto, Canada. http://wirelessandmobile.wowgao.com
Application and Aggregated Service Provider	- 2nd International Workshop on Mobile Commerce and Services (WMCS). 18-19 Jul 2005, Munich, Germany. http://www.mobile.ifi.lmu.de/Conferences/wmcs05/ - ASWN 2005 - 5th Workshop on Applications and Services in Wireless Networks. 29-1 Jun/Jul 2005, Paris, France. - The Fourth International Conference on Mobile Business. 11-13 Jul 2005, Sydney, Australia. http://www.mbusiness2005.org
Content Provider	- 6th International Conference on Mobile Data Management (MDM'05). 9-13 May 2005, Ayia Napa, Cyprus. http://www2.cs.ucy.ac.cy/mdm05 - MobiSys 2005 - The Third International Conference on Mobile Systems, Applications, and Services. 6-8 Jun 2005, Seattle WA.

Target Group	Events and Media
Access Provider	http://www.usenix.org/events/mobisys05/ - MobiSys 2005 - The Third International Conference on Mobile Systems, Applications, and Services. 6-8 Jun 2005, Seattle WA.

2.2.3.   Government

In this section we consider as target groups not only governments and international bodies but also related institutions such as: local government, and specific sectors that in many nations, are the ultimate responsibility of governments (e.g. public health systems).

2.2.3.1.   National governments

- Which countries?
    - o Governments of countries represented within the Akogrimo consortium: It may be easier to establish relationships with these national governments than others as there is the possibility of existing partner contacts effectively.
    - o Governments of other EU countries: In general, there would be less knowledge within the consortium about EU countries not represented in the project. These may require a project-wide approach.
    - o Governments of other major industrial nations e.g. G8: Although major industrial nations outside the EU, such as other nations in G8, will be less familiar to partners than their own governments, these nations will have programmes to establish an infrastructure which may be receptive to Akogrimo.
    - o Governments of other countries outside the EU: Here it is more difficult to make a generic approach. Although mobile networks are commonly associated with richer countries, some developing countries are finding that installing wireless networks enables them to skip land-based infrastructures in some areas. Hence there may some receptiveness to the idea of a mobile grid.
- Which kind of body within national governments?
    - o National regulatory bodies for telecoms, data protection and freedom of information: Telecommunications provision is generally the subject of regulation and the regulatory bodies should be receptive to approaches from Akogrimo as to how the regulations can be made more effective (more regulation or less, depending on the situation) (use Akogrimo D2.1.2 for guidance).
    - o National research organisations: Earlier in this document, we have discussed research institutes and departments organisations as a target group. However national research organisations (e.g. PPARC) are responsible for establishing and running national programmes and the national interface to international programmes. Dissemination from Akogrimo may need to be tailored appropriately for such bodies, in order to foster future relevant research programmes
    - o National programmes for industry support: Some national governments run programmes to support the introduction of ready technology into industry and commerce.
    - o National public programmes relevant to the testbeds. These could be public health systems or educational institutions, such as schools and training organisations. There is more than one way of dealing with this. One way is to approach interested parties – such as education bodies and public health systems – directly. Another is to work through projects which are relevant to these application domains, such as ELEGI (European Learning GRID Infrastructure).
- Local government

2.2.3.2. International bodies

- EU
  - FP6 segments – these are examples of relevant groups of Projects. However dissemination to and collaboration with these groups of Projects is the task of WP6.4. However we list the possibilities here for reference:
    - IST Grids Unit Projects and other relevant FP6 Projects e.g.
    - Health - HealthGrid is a cluster of EU grid-related projects, mainly to do with biomedical applications and may therefore overlap to a small extent with the Akogrimo health test bed.
    - Learning - ELEGI (European Learning GRID Infrastructure) is an FP6 project concerned with developing innovative learning via the Grid and has partners in common with Akogrimo (ATOS, CRMPA and CCLRC)
    - Mobility, ubiquity etc.
    - Segments of FP6 targeted at the citizen
  - EU Regulatory bodies (use Akogrimo D2.1.2 for guidance)
- UN – specific agencies
  - UN agencies which rely on workers in the field (hence requiring mobile access or possibly offering mobile services) may be a possible target group.

2.2.3.3. Events and Media

Unlike the research target group (section 2.2.1) which is reached by means of journals and conferences in the appropriate subject areas, agencies and institutions in government and international bodies may attend the same conferences but probably to a lesser extent. They may therefore well need a different approach.

One approach is to make use of Akogrimo flyers and other introductory material, but to select the material according to the target group. Multiple flyers may be needed.

Another approach is to select a small number of targets and make specific approaches to these. They may be chosen on the grounds of existing expertise; readiness take on the new work; and influence. However if this is done, it is essential, that the message be agreed and well-understood.

2.3. Derived Strategy/Objectives

In the previous sections we have identified the potential target groups for the Akogrimo results, in which subject areas they can be grouped and how they could be approached (in particular at which events). As it makes no sense to aim at a global dissemination aiming for the same goals. For this reason we have defined the following rough level for the dissemination goals

- **None:** Means that no specific goal has been set and dissemination is not actively targeted.
- **Awareness:** The dissemination goal is to reach awareness of the concepts of Mobile Grids and relevant results achieved, what is the motivation and reasoning behind the project objectives. So to make them aware of existence of results and what they are about.
- **Understanding:** Additionally to awareness this goals describe the status where the target group addressed understand enough the concepts and results in order to assess if the re-

sults can be applied to problems faced within their company/institution. A high level here could e.g. result in a small in house prototype or experiment.

- **Action:** The highest level aimed for requires additionally to what has been described under Awareness and Understanding active feedback towards the project in form of validation results, alternative proposal or concrete feature requests.

Table 1 relates the target groups and subject areas, for each sensible combination and indicates the envisaged dissemination level.

		Technology & Prototype	Applications	Methods & Tools	Akogrimo Framework
Research	Distributed Systems	action	understand.	action	action
	Mobile & Modern Networks	action	understand.	action	action
	Other Groups	action	understand.	action	action
Business/-Industry	Network Infrastructure	understand.	awareness	non	understand.
	Mobile Grid Infrastructure	understand.	awareness	understand.	understand.
	Application & Aggregated Service Prov.	understand.	understand.	understand.	understand.
	Content Provider	none	awareness	awareness	awareness
	Access Provider	understand.	awareness	none	understand.
Government	National Governments	awareness	understand.	none	understand.
	International Bodies	awareness	understand.	none	understand.
General Public	(no subdivision)	non	awareness	none	awareness

Table 1 - Correlations of subject areas, target groups, detail levels

2.3.1. Summary of the Strategy

The dissemination activity is not producing any results itself but is dependant from the results provided by the other workpackages of the project. The dissemination activity has two major tasks to be performed. The first task is to collect all the results from the project such as project

deliverables, prototypes and other technology results such as software, application level services, methods & tools and experiences & knowledge and group and transform them to "dissemination products" and use the right medium to reach the target audience with the planned dissemination level. This concept is roughly shown in Figure 1 with the arrows (in blue).
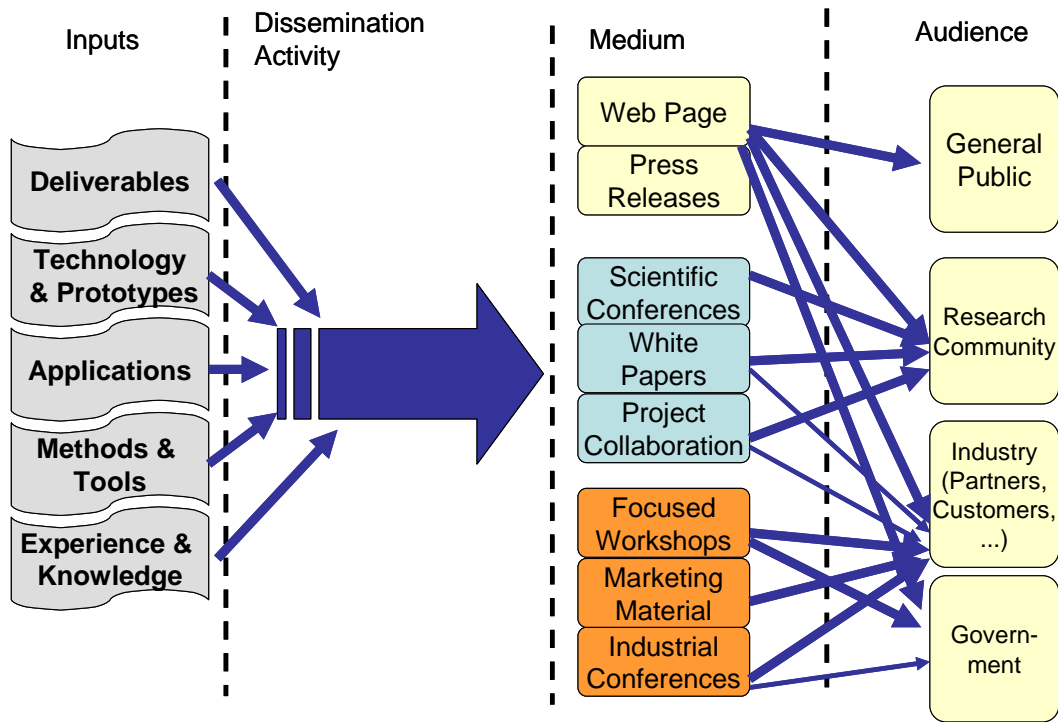

Figure 1 Rough concept for the dissemination activity

In the figure eight major media for the dissemination activity has been identified. Not all apply in the same way to all results and target groups. Beside the general dissemination media *Web Page* and *Press releases* where all target groups are addressed we see rather different media for approaching the major dissemination group Research Community and Industry.

The dissemination plan toward the scientific community is following the approach of using scientific conferences in order to raise awareness and achieve active feedback and understanding of the project results from a wider community. White papers[2] that summarize key results in a short and handy way are supposed to support this activity in order to raise awareness. They are also supposed to server the same purpose for technical experts from industrial partners. Another area identified for direct and valuable exchange of results and concepts with the scientific community is through the establishment of collaborations with other research project on national and international level. This includes bi-lateral co-operations with projects as well as the concertation activities on European level.

Also the dissemination plan toward the industry is relying on additional media beside the global elements of Web Site and press releases. Major results of the Akogrimo projects are either communicated on paper (Akogrimo architecture) or are located in the middleware layer/infrastructure layer. These kind of results cannot serve easily as direct basis for raising awareness in the industrial domain. The presentation of the results must be organised around applications or demon-

---

[2] The less technical white papers such as „Case Studies report"or „Success stories" are seen as *Marketing Material* not as White Papers.

strations in the exhibition area in industrial focused conferences. This means that the initial focus of the activities in this domain will be starting in domain specific events e.g. in the eHealth or eLearning domain. In a later stage of the project focused workshops on how to apply e.g. the developed Methods and Tools for Application Integration. Developing Applications for the Akogrimo Framework can follow. This activity is in general supported by marketing material such as "Case Studies", "Success Stories", "Comparison of Akogrimo with Web Services" or similar short and focused documents. Additionally flyers with links to the web page and limited lines of text will be produced as well. Flyers will be different for different target groups and application domains.

2.3.2. Summary of the expected results

As outlined above the dissemination activity is dependant from the availability of results from the other workpackages. The table below shows the identified timing and products as described in the description of work of the project.

Milestone	Month	Main Products
Project Start	M0	Project initiation
Refined Project Vision	M6	State of the art, Detailed Implementation Plan (first cycle), Environment for the project, Problem Definition for Application Scenarios and the initial testbed description and initial ideas on the business models are defined..
Environment and Context is specified	M9	The environment is identified and described. Revised version of the testbed descriptions, State of the art and the regulation is completed
First Version of the Architecture	M12	A first version of the architecture that shows the interaction between the different layers moving Grid middleware from a network agnostic technology to a network enabled technology is completed.
Completion of cycle one and first prototype	M18	The Akogrimo Architecture, Prototype of the services of the different layers, Standardisation & Exploitation strategy. Dissemination results are available. The results achieved in the 1st cycle are validated The results are put as input into the second cycle activities
Architecture finalised, Points for exploitation clarified	M24	The final Akogrimo multi layer architecture is completed and the final phase of the development is started. Akogrimo is ready to provide at month 29 a solid basis for the testbed and the demonstrator.
Second Prototype and initial testbeds	M29	The Akogrimo Architecture is released and the prototypes and services enabling mobile grids to be used in testbeds and demonstrators are available.
Completion of cycle two and Project completion	M36	Final version of the Reference Implementation, User Manual, Final test-bed implementation, Final version of the Demonstrators. Impact Analysis, Standardisation and Exploitation, Dissemination results.

Table 2: Summary of higher-level project milestones, delivery timescales, and main outputs.

2.3.3. Approaching the Research Community

As already described above the dissemination strategy will be based on three major elements

- Scientific Conferences

- White Papers

- Project Collaboration

This applies in the same way to different domains covered by Akogrimo. The major problem that needs to be solved is that almost no conference covering network **and** grid topics at the same time could be identified. Additionally the topic of Mobile Grids is not covered by a wide community so far. This will be approached by joint publications from the different groups to network oriented and grid/distributed systems oriented conferences. Another approach will be to use the possibility of submitting workshops to conferences allowing to organise a part of the conference with selected topics.

The White Papers are expected to cover areas that are not directly suitable for scientific conferences but are of interest to the research community and technical staff of industry. The type of document expected is more a hands-on guide to use results from the projects.

Beside this written material the most effective dissemination is expected to be enabled through the use of bi-lateral and EU wide collaboration between research projects. This is covered in more detail in the deliverable D.6.4.1 on collaboration.

The following sections are organised in line with the major milestones planned for the project as shown in Table 2.

2.3.3.1. M0-M5: Initiation Phase

In this initial phase generally only awareness in the different communities can be achieved as until month 6 no final results have been achieved.

Major Available Dissemination Products:

- Project Idea

- Objectives

- Global technical direction

Goal:

- Awareness in the community

Necessary Actions in this period:

Provide general presentations towards the research community in order to gain awareness on the project objectives and general ideas. Furthermore projects that are covering similar areas than Akogrimo must be identified in order to establish information exchange and organise joint workshops and meetings. Publication of the general objectives of the project in newsletters such as Enter the Grid (http://www.enterthegrid.com) or ERCIM news (http://www.ercim.org)

Summary of performed actions:

- News for EnterTheGrid, ERCIM News

- Several project presentations including European Grid Technology Days

- Press Releases

2.3.3.2. M6-M12: Refined Project Vision

At this point in the project the technical environment has been almost identified and the application scenarios have been identified. Furthermore the requirements engineering and gap analysis for the existing technologies and toolkits has been identified. The initial architecture version is available which global responsibilities for the layers

Major Additional Available Dissemination Products:

- Scenario descriptions

- Technology Prototype

- Challenges on Mobile Grids

- Architecture

- Key Research Topics to be solved

Goals:

- Feedback from the community on initial results (Understanding)

- Increased Awareness of Goals, Visions and Key Elements addressed

Necessary Actions in this period:

In this period the results need to be communicated to the community through the identified media. This includes the submission of papers to conferences in the network and grid domain as identified in the chapters above. The focus should be on selected topics towards technical conferences and less technical conferences with the application scenarios and the business opportunities. In particular the concertation event end of May 2005 will be used to disseminate the initial results on Architecture (TG1), Scenarios (TG2), Collaboration (TG3) and Workflows (TG8)

Summary of performed actions until PM10:

- Submission and acceptance of a paper and demonstration at IPv6 summit

- Submission and preliminary acceptance of a workshop on "Virtual Organisations" together with ELeGI, TrustCoM and NextGrid at eChallenges 2005

- Submission and preliminary acceptance in support of a workshop on "Service Level Agreements" at eChallenges 2005

- Submission of a paper on "Service Level Agreements" to GSEM 05 (Organised by Adaptive Services Grids) jointly with TrustCoM

- Submission of a paper for publication in the special issue on Grids from the journal "IT Information Society"

Planned Actions:

- Publication of a installation package and white paper on installation of an Mobile IPv6 environment with Web Services Hosting environments and simple services

- Contribution to the concertation event

2.3.3.3. M13-M18: Initial Prototype

At this stage the architectural concept has been partially proofed with the implementations of the prototypes and the validation activities have produced already initial valuable feedback for the

second iteration of the project. The project should be in a very good position to publish a list of results with technical detail on the assessment of the chosen solutions. Also the prototypes have been moved from technology demonstrators towards application demonstrators which allow better demonstration and case-studies.

Major Additional Available Dissemination Products:

- Initial Application Prototypes

- Architecture version 1

- Initial Validation Results

- Reference Implementations

Goals:

- Feedback from the community on initial results (Understanding)

- Awareness of Project Achievements

- Exchange and take up of solutions (architecture, design, parts of the implementation) by the community (action)

Necessary Actions in this period:

It is important to perform demonstrations of the realised prototypes in order to show the benefit of the results achieved so far. In particular the results of the validation should be combined with the results from the architecture and implementation tasks in order to confirm or propose modifications. In case of positive validation the impact on the community can only be achieved if they are publicly available. The focus of publications should be on the conceptual layer showing the novelty of the chosen approaches and provide motivations for the solutions combined with the initial validation results.

Planned Actions (will be extended):

- Update white paper and installation package on a "Mobile Grid Environment"

- Set-up and maintenance of an IPv6 accessible demonstration environment for external users

- Publications of papers and submission to journals (to be identified)

- Organisation of joint workshops with other project related to this topic (ideally in the frame of the concertation activities)

- Submission of results to the planned European Grid Days June 2006

2.3.3.4. M19-M29: Second Prototype

In this phase the dissemination activities move from the conceptual layer (architecture, concepts, technology integration approach) toward the implementation layer. The focus will be therefore more and more on the applications and realised solutions. In this phase the publications should focus on analysis of the performance, interoperability, scalability of the solutions. In this phase it is expected that more community oriented dissemination in particular toward the application domains of eHealth, eLearning and the topic of the 3rd testbed (e.g. Disaster Handling and Crisis Management) are performed.

Major Additional Available Dissemination Products:

- Application Prototypes

- Final Architecture

- Validation Results Phase 1

- Reference Implementations

- Akogrimo Method

Goals:

- Feedback from the community on results (Understanding)

- Benefit of the solution to the application domain (Understanding)

- Awareness of Project Achievements

- Exchange and take up of solutions (focus on implementation) by the community (action)

Necessary Actions in this period:

It is important to perform demonstrations of the realised prototypes in order to show the benefit of the results achieved so far. In particular the results of the validation should be combined with the results from the architecture and implementation tasks in order to confirm or propose modifications. In case of positive validation the impact on the community can only be achieved if they are publicly available

Planned Actions (will be extended):

- Identify and Select relevant conferences in the application domain

- Preparation of Tutorials and Workshops to conferences

- Production of Material for Training

- White papers on Application integration, technology and architecture

2.3.3.5. M30-M36: Demonstration Phase

In this phase the focus will be even more on the realised solutions and experience reports from the application domain.

Major Additional Available Dissemination Products:

- Demonstrator

- Validation Results Phase 2

Goals:

- Feedback from the community on results (Understanding)

- Benefit of the solution to the application domain (Understanding)

- Awareness of Project Achievements

- Exchange and take up of solutions (focus on implementation) by the community (action)

Necessary Actions in this period:

The actions are not significantly different from the last period. The only additional action to be taken is to ensure the availability of the results after the end of the project e.g. through the web site. Ideally the maintenance of the release software is taken up by the results of the exploitation activities.

2.3.4. Business/Industry

In this section the specific dissemination actions towards the industrial domain are described. In this section we have intentionally not chosen the same structure as for the research community as the dissemination must be more targeted and needs to be focus on specific groups as efficient events must be much smaller and the material cannot be in the style of covering only a certain technical aspect in detail but must be more application oriented and in style of "case-studies". The activities here must be aligned with the exploitation activities and will be further updated in the planned update of this document in month 24[3].

We have identified the following media for approaching this community beside the general media such as Web Pages.

Media	Description
Focused Workshops or Seminars	In order to attract industry to the results of the project it is planned to focus on small events (<50 participants) ideally by invitation where a specific group (see below) is invited and the specific results can be presented and discussed. Such kind of events are expected to be realised after the availability of initial prototypes after PM18
Marketing Material	Initial marketing material will be limited to power point presentations and general flyer material. This will be enriched by group focused flyers in particular targeting at network infrastructure providers (telecoms) and application providers. Additional to this reports on the realised testbeds and executive summaries from the deliverables will be made available.
Industrial Conference	Similar to scientific conferences more industry focused conferences and exhibitions will be targeted. Of course the boundary between "scientific" and "industrial" are not sharp and often covered by one particular event.

The following sections will give a more detailed outline of the topics and a very rough guideline on dates for the planned actions. In general all actions mentioned under the research community are expected to be available as well and are not repeated here.

2.3.4.1. Network Infrastructure Provider

Akogrimo Networking partners will be in charge of disseminate network specific characteristics on Mobile Grid computing to the Network industry by producing technical papers an participate in workshops, summits, standardisation bodies, etc.

Requirements in this field network from the Grid world and technical challenges (such as SIP and SOAP coordination) will be shown to the Network industry to show the new business opportunities throughout the Mobile Grid World. Seminars will be organised to train developers and managers working in commercial companies to learn about the architecture, methods, and components developed in Akogrimo. In particular the IPv6 forum and events such as the IPv6 summit will be targeted. In this domain Akogrimo will benefit from the established liason with

---

[3] Dependant of the not yet realised update Detailed Activity Plan fort he second 18 month period

the IST-Daidalos project which will be present at these events and will help to get a high visibility.

Planned Actions:

- Publications and Demonstrations of selected technical challenges such as integration of SIP and Web Services and potential of Grid as service provision technology for Telecom operators~ PM6 – PM36

- Workshop on "Grid Opportunities for Network Operators" ~ PM20

2.3.4.2. Mobile Grid Infrastructure Provider

Introduction of Mobile Networking issues as Mobility, QoS, AAA and security on Traditional Grid infrastructure will allowing to establish a 'virtual home', with nomadic and mobile environments for solving complex problems across network technology and provider domains. 'Mobile Dynamic Virtual Organizations' (MDVO) concept developed in Akogrimo will be the central point to disseminate over Grid industry. To target this goal, participation in conferences and organizing seminars to show potential impact in business of MDVO and new opportunities from grid equipment providers to grid operators will be done.

As the "Mobile Grid infrastructure Provider" does not exist so far the target must go to Grid Infrastructure Provider in General. In consequence the target must go the events where Grid hardware providers are presented and conferences or events for infrastructure providers. In this area traditional exhibitions and events of the hardware providers such as International Supercomputing Conference and events organised by EGEE (http://www.egee.org) or by the forthcoming project under the objectives of "early pilots" in the 5th call will be the right targets. Additionally Akogrimo will aim at a collaboration on this topic with the Adaptive Services Grid (ASG) project aiming at a similar infrastructure on this layer.

Planned Actions:

- Publications and Demonstrations of selected technical challenges in particular here the new solutions on Management of Virtual Organisations (e.g. Membership Management), Cross organisational accounting and billing, Contract Management, … ~ PM6 – PM36

- Workshop for infrastructure providers on "Deploying Mobile Grids" ~PM 32

2.3.4.3. Application and Aggregated Service Provider

ASP as a third-party entity will be target by Akogrimo dissemination activities. Main goal will be open their business products to the merging paradigm of Mobile Networking and Grid developed by Akogrimo. New Network and Grid requirements and implications will be shown by dissemination of promotional material (leaflets, posters, etc) as well as invitation to seminars among selected companies. Specific meetings with target entities will be organized if required.

Akogrimo will seek in particular cooperation with K-WF Grid, TrustCoM and NextGrid on this issue.

Planned Actions:

- Publications and Demonstrations of selected solutions in the area of adaptive workflows and local and global service discovery~ PM6 – PM36

- Workshop on "Dynamic Service Provision for Grids" ~PM 20

- Workshops on industrial or application oriented conferences in the domains of the selected testbeds.

2.3.4.4. Content Provider

Main Akogrimo impact on Content Providers will be based on customized content services based on demands, requirements or interests of the users. A4C concepts over mobile grid will be the dissemination target to Content Provider industry. So personalization mechanism to be used/developed by Akogrimo will be a key issue to disseminate in this fora as well as Location and Context Awareness. Participation on technical conferences and exhibitions will be the main dissemination activity to cover Content Providers.

Planned Actions:

No particular action beside the general policy of publication of results.

2.3.4.5. Access Provider

Akogrimo impact on access providers will be focus on new business opportunities open with the Mobile Grid Applications. Main activities to disseminate to the access providers will be based on security and privacy consideration as well as federation among access providers to support complex transactions or creation of MDVO. Support of target applications over Mobile Grid Infrastructure as e-learning, e-health, crisis management, Teleworking and forecast applications.

Planned Actions:

- Publications and Demonstrations of selected solutions of the realised prototypes ~ PM18 – PM36

- Workshop on "Business Opportunities through Akogrimo" with target audience application providers and telecom operators.

2.3.5. Government

Despite the fact that this is a separate target group no specific action towards this group is planned additionally to the actions presented for the research community and the industrial domain. The interest is likely to be focused on the application domain.

Annex A. Annex

The annex comprises content which is subject to change/update or just presents other deliverables – i.e. accomplished and planned dissemination activities and dissemination material.

A.1.   Accomplished Dissemination

A.1.1.   Overview

This section gives a summary and evaluation of the dissemination done so far, i.e. from 1 July 2004 until 30 April 2005.

The following table contains the overview.

Date (Act.)	Subject Areas	Target Group	Type	Countries	Public Size
5 Nov 2004	technology		conference	Spain, Latin America	100
6 Jul 2004		general public	press release	Germany	
1 Aug 2004		general public	website (deliverable)	all	9404 page requests
1 Sep 2004		general public	video	all	717 downloads
15 Sep 2004		general public	publication	all	
20 Sep 2004		general public	press release	all	
1 Oct 2004		general public	press release	all (> 100 countries)	11,500 copies
15-17 Sep 2004		research	conference	all	
22-23 Nov 2004		research	conference	all	
2 Dec 2004		research	publication	all	
2 Dec 2004		research	publication	all	
2-3 Dec 2004	deployment (market, players, business models)	research	conference	all	ca. 15 workshop participants
14-16 Feb 2005		research	conference	all	
11 Mar 2005		research	conference	all	

Date (Act.)	Subject Areas	Target Group	Type	Countries	Public Size
14 Mar 2005		*research*	*conference*	*all*	
30 Apr 2005		*research*	*press release*	*Spain*	
15 Sep 2004		*research, industry*	*conference*	*all*	*> 200*
7-9 Mar 2005		*research, industry*	*conference*	*all*	*ca. 50*

Table 3 – Accomplished Dissemination Overview

The items are referenced in detail in the following sections.

A.1.2. Conferences

Akogrimo partners participated actively in following conferences:

Date (Act.)	Conference	Contribution	Participants/Authors
15 Sep. 2004			
15-17 Sep. 2004	European Grid Technology Days 2004, IST-FP6 Grid Projects Launch and Concertation	Akogrimo – Access to knowledge through the Grid in a mobile world	CCLRC CRMPA Datamat ICCS/NTUA TID USTUTT
5 Nov. 2004	Conference Education	Akogrimo as an example of distributed computing in a mobile environment	TID (Antonio Sánchez)
22-23 Nov. 2004	1st FP6 concertation meeting on eInfrastructures, The Hague, Netherlands	(presentation of the Akogrimo project)	Datamat (Federico Rossi)
2-3 Dec. 2004	Practical Aspects of Knowledge Management PAKM, Vienna	Presenation of the Akogrimo Market Players	BOC ICCS/NTUA UHOH UniZH (Martin Waldburger) UTSUTT
14-16 Feb. 2005	European Grid Conference 2005 (EGC2005)	A Task Replication and Fair Resource Management Scheme for Fault Tolerant Grids (poster referencing Akogrimo)	ICCS/NTUA (Antonios Litke, Konstantinos Dolkas, Konstantinos Tserpes, Theodora Varvarigou)
7-9 Mar.	GridCoord Industrial	AKOGRIMO	CRMPA (Pierluigi Ritro-

Date (Act.)	Conference	Contribution	Participants/Authors
2005	Workshop		vato)
11 Mar. 2005	Grid Symposium, Heidelberg, Germany	Next Generation Grids	USTUTT (Stefan Wesner)
14 Mar. 2005	German Russian Workshop, Stuttgart, Germany	Mobile Grids?	USTUTT (Stefan Wesner)

Table 4 – Accomplished Conferences

At the IST FP6 Grid Launch Event in September 2004 the project presentation, prepared by Antonio Sánchez, Stefan Wesner and Jürgen Jähnert, was presented. The slides are provided on the project web-site. Figure 2 shows an exemplary page.
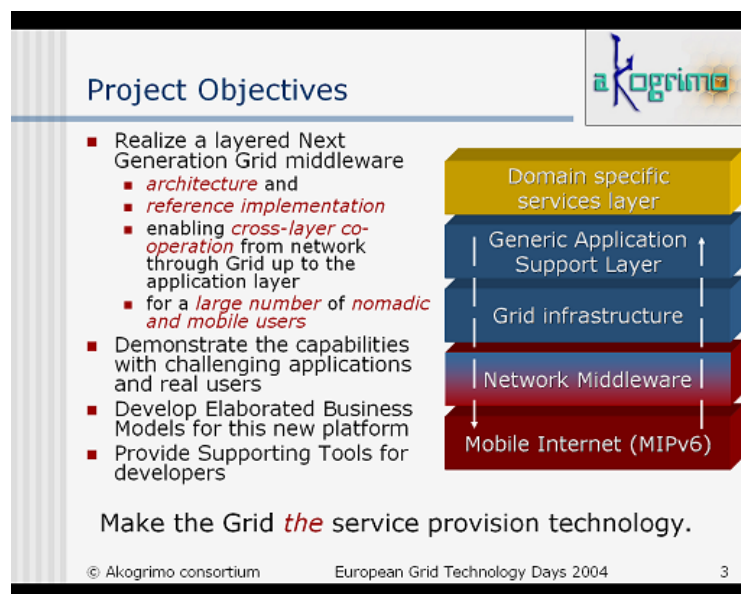
Figure 2 - Project Presentation

A.1.3.   Press Releases

Following national and international press releases have been published:

Date (Act.)	Journal	Article	Authors
6 Jul. 2004		Auf dem Weg zu einer neuen Wissensverarbeitung	USTUTT (Jürgen Jähnert, Stefan Wesner)
20 Sep. 2004			TID
1 Oct. 2004		Akogrimo - The Grid goes Mobile	USTUTT (Stefan Wesner), CCLRC (Theo Dimitrakos, Keith Jeffrey)
30 Apr. 2005	Comunicaciones de Telefónica I+D	Akogrimo	TID (Eduardo Oliveros, María L. Fernán dez)

Table 5 – Accomplished Press Releases

A.1.4. Publications

Following national and international publications have been launched:

Date (Act.)	Book	Article	Authors
15 Sep. 2004			TID USTUTT
2 Dec. 2004			ICCS/NTUA
2 Dec. 2004			UHOH

Table 6 – Accomplished Publications

A.1.5. Videos

A video envisions an application scenario of Akogrimo in the e-health sector. It is provided on the project website.

The video is called "Akogrimo eHealth Scenario" and was produced in August 2004. Involved parties were:
UHOH (C. Loos – Faculty of Economics and Social Sciences)
Clinic for Anaesthesiology, University Hospital Tübingen (Dr. med. M. Rail and team)
DRK Tübingen
USTUTT/RUS (P. Christ, C. Copplestone, E. Schill)
USTUTT/HLRS (J. Sauer, S. Wesner, U. Zimmat)

The number of downloads (1016 until April 2005) shows the big interest and the importance of the use of visual media.

A.1.6. Websites

The project web-site was set up before the official start of the project as a 1 page project description. After one month the web-site was restructured and extended. In April 2005 the web-site was revised.

The project web-site is shaped and hosted by USTUTT. URLs are "www.akogrimo.org" and "www.mobilegrids.org".

Figure 3 shows the start page. It displays a brief welcoming introduction and the 10 most recent articles.
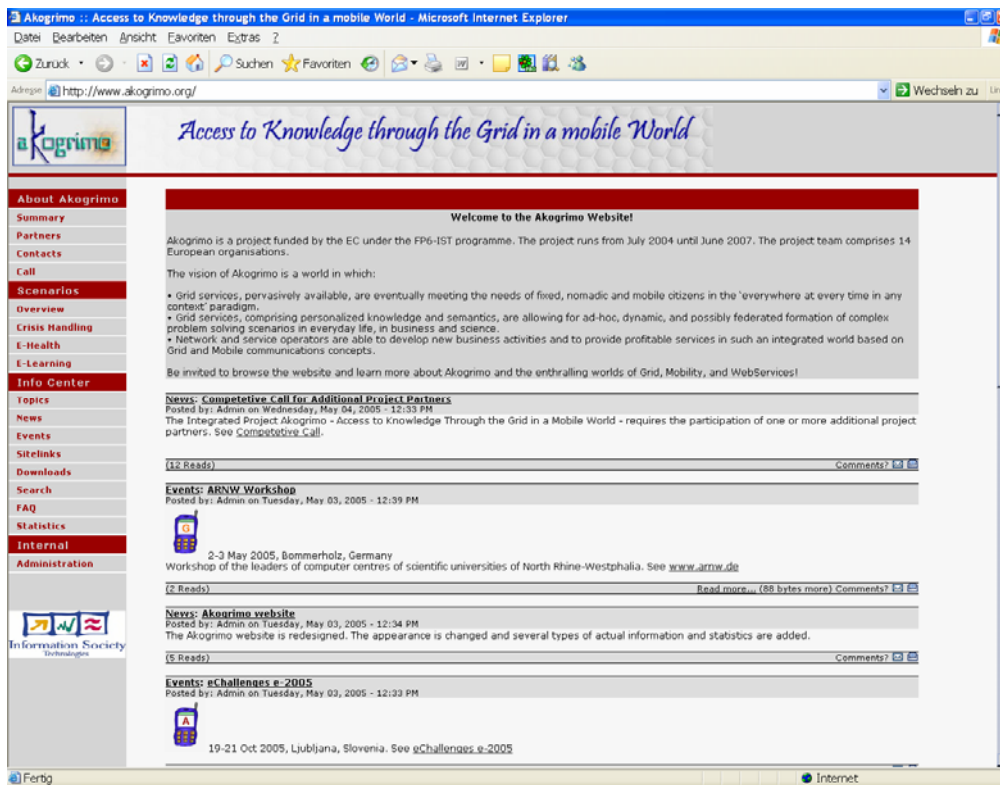
Figure 3 – Project Website

Available sections include:

- **About Akogrimo**: Summary, Partners, Contacts, Call
  There is a summary on the project Akogrimo, a list of contributing institutions, and a notice on dedicated contact persons. A call for additional project partners is published.

- **Scenarios**: Overview, Crisis Handling, E-Health, E-Learning
  Potential deployment fields are described. General requirements and features are identified, possible fields are listed, and evaluated testbeds are detailed.

- **Info Center**: Topics, News, Events, Sitelinks, Downloads, Search, FAQ, Statistics
  Here, different kinds of articles - news, events, sitelinks, downloads - which are subject to update, are gathered. Each article also has a topic assigned. The information items of the website can be searched. Further on, there are FAQs. Finally, Statistics on website visits are provided.

- **Internal**: Administration
  This is the admissions point for website administration and article update.

A.1.6.1. Updating Information

Articles can be added or edited by project members. Each article is classified as either news, events, sitelinks, or downloads, and is assigned a topic. Figure 4 shows the interface via which information can be updated.
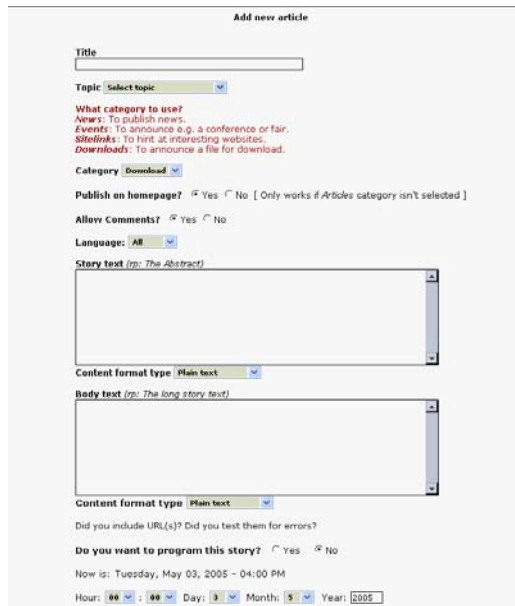
Figure 4 - Information Update GUI

A.1.6.2. News Syndication

The Akogrimo website allows syndication of its news via XML or rather RSS.

```
- <item>
    <title>ISC2005 - 20th International Supercomputer Conference</title>
    <link>http://www.akogrimo.org/modules.php?op=modload&name=News&file=article&sid=29</link>
    <description>21-24 Jun. 2005, Heidelberg, Germany. See ISC2005.</description>
  </item>
- <item>
    <title>Global IPv6 Summit</title>
    <link>http://www.akogrimo.org/modules.php?op=modload&name=News&file=article&sid=28</link>
    <description>6-10 Jun. 2005, Madrid, Spain. See www.ipv6-es.com/05/in/i-index.php.</description>
  </item>
```

Figure 5 - News Syndication

This kind of news can either be syndicated on other web sites (e.g. other European projects or partners web sites. This kind of standardized XML based news format is also supported by a variety of programs collecting the news from different sources into an email style format.
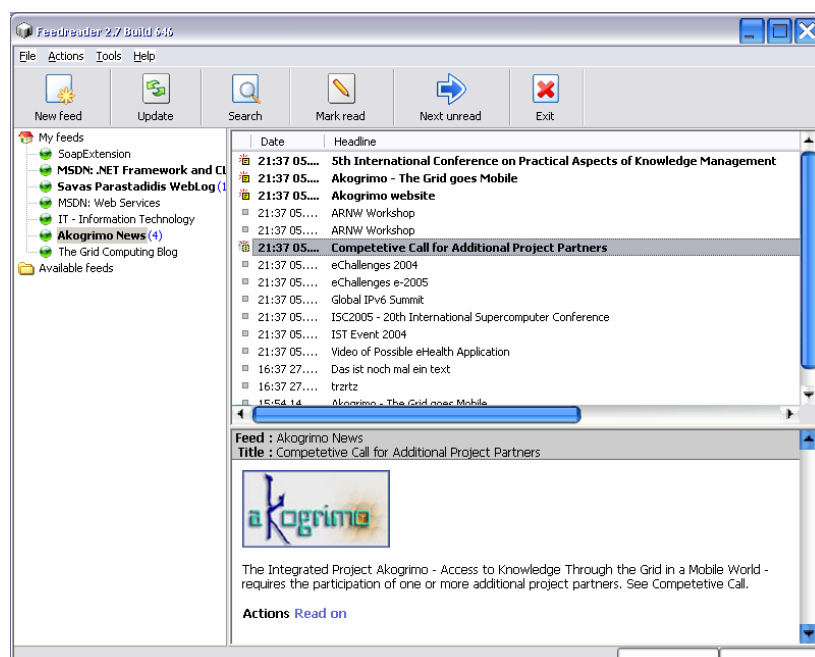

Figure 6 Screenshot of the news in a RSS Reader

A.1.6.3. Audience Size

The web-site statistics scans the visits of the Akogrimo website and the occurrences of related terms. In the figures "reqs" refers to any file and "pages" to html and php files.

Figure 7 shows the number of visits of the Akogrimo website. It reveals about 1000 to more than 2000 viewed pages per month.
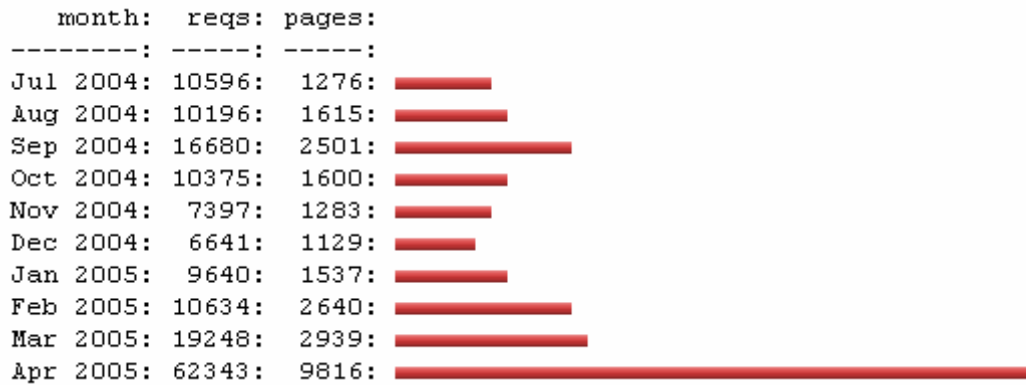
```
    month:   reqs:  pages:
---------: ------: ------:
Jul 2004: 10596:   1276:
Aug 2004: 10196:   1615:
Sep 2004: 16680:   2501:
Oct 2004: 10375:   1600:
Nov 2004:  7397:   1283:
Dec 2004:  6641:   1129:
Jan 2005:  9640:   1537:
Feb 2005: 10634:   2640:
Mar 2005: 19248:   2939:
Apr 2005: 62343:   9816:
```

Figure 7 - Website Statistics: Requests

The websites that Akogrimo visitors came from via links are assorted as shown in Figure 8.

reqs	%reqs	pages	%pages	site
1151	59.51%	446	48.85%	search engine/
271	14.01%	0		ftp://202.38.126.48/
123	6.36%	123	13.47%	ec/eu research schemes/sites/collaboration/
107	5.53%	107	11.72%	Akogrimo partner/
83	4.29%	83	9.09%	ec/eu project (site/page)/
32	1.65%	9	0.99%	miscell. services (translation, jobs)/
28	1.45%	28	3.07%	virtual magazines/
20	1.03%	0		http://216.239.39.104/
13	0.67%	13	1.42%	http://www.semanticgrid.org/
10	0.52%	10	1.10%	event presenters/

Figure 8 - Website Statistics: Linked Sites

The domains where visits originated are distributed as shown in Figure 9.

reqs	%reqs	pages	%pages	domain
21816	31.37%	4149	26.17%	[unresolved numerical addresses]
15859	22.81%	3357	21.17%	.de (Germany)
8062	11.59%	4049	25.54%	.com (Commercial)
5767	8.29%	1025	6.46%	.net (Networks)
3405	4.90%	398	2.51%	.it (Italy)
2209	3.18%	420	2.65%	.uk (United Kingdom)
1928	2.77%	207	1.31%	.at (Austria)
1776	2.55%	262	1.65%	.es (Spain)
1511	2.17%	235	1.48%	.ch (Switzerland)
871	1.25%	164	1.03%	.gr (Greece)
652	0.94%	148	0.93%	.pt (Portugal)
625	0.90%	69	0.44%	.be (Belgium)
610	0.88%	77	0.49%	.nl (Netherlands)
501	0.72%	119	0.75%	.pl (Poland)
476	0.68%	449	2.83%	[unknown domain]
392	0.56%	54	0.34%	.int (International Treaty Organisations)
376	0.54%	68	0.43%	.br (Brazil)
362	0.52%	60	0.38%	.fr (France)
241	0.35%	31	0.20%	.edu (USA Higher Education)
229	0.33%	15	0.09%	.hu (Hungary)
183	0.26%	33	0.21%	.cz (Czech Republic)
177	0.25%	36	0.23%	.jp (Japan)
171	0.25%	38	0.24%	.no (Norway)
147	0.21%	29	0.18%	.ro (Romania)
141	0.20%	19	0.12%	.pk (Pakistan)
128	0.18%	33	0.21%	.fi (Finland)
127	0.18%	109	0.69%	[domain not given]
91	0.13%	7	0.04%	.in (India)
78	0.11%	76	0.48%	.sc (Seychelles)
68	0.10%	10	0.06%	.org (Non Profit Making Organisations)

Figure 9 - Website Statistics: Visit Origins

Figure 10 lists terms the Akogrimo website was approached with via search engines.

%reqs	reqs	%pages	pages	search term
32.88%	267	83.70%	267	akogrimo
29.19%	237	5.96%	19	grid
26.85%	218	3.76%	12	mobile
2.96%	24	1.25%	4	wireless
2.22%	18	4.39%	14	ehealth
1.97%	16		0	grids
1.60%	13		0	ogsa
0.37%	3		0	globus
0.37%	3	0.31%	1	mobiles
0.25%	2	0.31%	1	elearning
0.25%	2		0	mobil
0.25%	2		0	mobility
0.25%	2		0	java
0.12%	1		0	ogsi
0.12%	1		0	roaming
0.12%	1		0	mdvo
0.12%	1		0	ipv6
0.12%	1	0.31%	1	mobilegrids

Figure 10 - Website Statistics: Search Words

To assess how often project related keywords are mentioned by other web-sites, the frequency that Google finds these terms was tracked. "Akogrimo" and "mobilegrids", which can be found in the project URLs, show a steady increase in frequency. Compared to "grid computing" the slope of the frequency increase of "Akogrimo" and "mobilegrids" is steeper. The term "mobile grids" shows the slowest increase. "wireless grids" even shows an overall decrease.
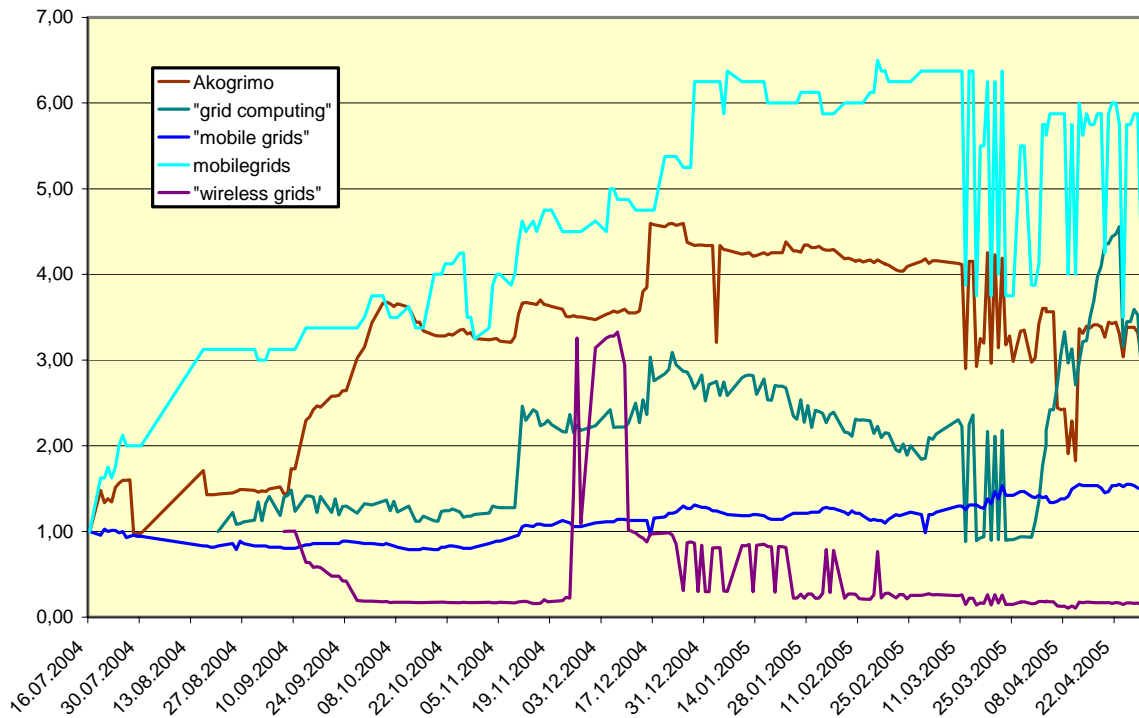
Figure 11 - Relative Keyword Frequency

In absolute numbers the frequency of the keywords as found by Google is given in Table 7.

Search Term	Akogrimo	mobilegrids	grid computing	mobile grids	wireless grids
Min. Occurr.	126	8	1.280.000	56	467
Max. Occurr.	602	52	6.610.000	110	14.700

Table 7 – Absolute Keyword Frequency

A.1.6.4.   Linkage to and from

By incorporating links pointing to the Akogrimo website, the website and hence Akogrimo is also disseminated. Naturally, the project's sponsor and partners provide links. Other relevant link sources are e.g. other projects. The links to the Akogrimo website are successively expanded. Figure 8 gives an idea about the kinds of existing link sources, although it just lists links which were actually followed by visitors.

Another means to lead visitors to the Akogrimo website are search machines and key words. Figure 10 shows examples which actually directed surfers to Akogrimo.

Links to other theme-related websites amend the Akogrimo website with information beyond the Akogrimo project itself. So, eagerness for visiting the website and hopefully for reading about Akogrimo is supported. The links to other websites are successively expanded.

A.2.   Summary of already planned dissemination

A.2.1.   Overview

This section gives a summary and evaluation of the dissemination planned.

Date (Act.)	Subject Areas	Target Group	Type	Countries Addressed	Audience Size

Date (Act.)	Subject Areas	Target Group	Type	Countries Addressed	Audience Size
2-3 May 2005	*Technology*	*Government*	*conference*	*Germany*	*50*
21-24 June 2005	*General*	*Grid infrastructure Provider*	*Conference and exhibition*	*all*	*>500*
6-10 Jun. 2005	*Technology*	*Network Industry*	*conference*	*all*	*>1000*
19-21 Oct 2005	*Applciations, Technology*	*Industry and Research*	*Conference*	*all*	*700*

Table 8 - Planned Dissemination Overview

A.2.2. Conferences

Date (Act.)	Conference	Contribution	Participants/Authors
2-3 May 2005	ARNW Workshop, Bommerholz, Germany	Next Generation Grids – sichere dynamische virtuelle Organisationen	USTUTT (Stefan Wesner)
6-10 Jun. 2005	Global IPv6 Summit, Madrid, Spain	Access to Knowledge Through the Grid in a Mobile World	USTUTT (Patrick Man dic, Ignaz Muller)
21-24 Jun 2005	ISC2005 - 20th International Supercomputer Conference, Heidelberg, Germany	(flyer exhibition, with E-LeGI, NextGrid, TrustCoM)	USTUTT
19-21 Oct 2005	eChallenges e-2005, Ljubljana, Slovenia	- Specific Challenges of Mobile Dynamic Virtual Organisation - Virtual Organisation in Next Generation Grid (workshop, with E-LeGI, NextGrid, TrustCoM) - Architecture for Service Level Agreement in Business Grids	UHOH (Christian Loos), USTUTT (Stefan Wesner)

Table 9 – Planned Conferences

A.2.3. Fairs

Date (Act.)	Fair	Contribution	Participants/Authors
21-24 June 2005	Intenational Supercomputer Conference	Flyers and Poster	USTUTT-HLRS