



## Contract No. IST 2005-034891

# Hydra

Networked Embedded System middleware for Heterogeneous physical devices in a distributed architecture

# **D13.2 Dissemination Strategy**

Integrated Project SO 2.5.3 Embedded systems

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## Index:

Introduction	4
1.1 Purpose, context and scope of this deliverable	4
Dissemination objectives	6
Dissemination strategy	7
Target audiences	10
_	
<b>y</b>	
4.3.3Grid technologies	13
·	
Completed activities	21
5.2 Partner dissemination activities	21
Future Plans	25
	Introduction  1.1 Purpose, context and scope of this deliverable  1.2 Proposed approach  Dissemination objectives  Dissemination strategy  3.1 Strategy overview  3.2 Dissemination responsibilities  3.3 Dissemination management  3.4 Dissemination activities  Target audiences  4.1 Research and wider scientific community  4.2 Relationships to other relevant initiatives  4.3 Standards bodies  4.3.1 Security  4.3.2 Web services  4.3.3 Grid technologies  4.3.4 W3C Technology and Society  4.3.5 OMA (Open Mobile Alliance)  4.3.6 Middleware standards  4.4 Potential customer base  4.5 General public  4.6 Dissemination channels  Completed activities  5.1 Website and logo  5.2 Partner dissemination activities  Future Plans

### 1. Introduction

## 1.1 Purpose, context and scope of this deliverable

This deliverable outlines the dissemination strategy and initial plans of the Hydra consortium and its partners for the first two years of the project. An updated dissemination strategy for the final two years of the project will be produced at month 18. The lead partner for dissemination is C-LAB.

The overall objective of the Hydra dissemination activities is to inform the scientific community and broader public of the existence of the project, its emerging results and its future value.

In pursuit of this objective the main purpose of this deliverable is to:

- Develop a common understanding of the objectives of the Hydra dissemination activities in support of the overall objectives and activities of the project.
- Identify the types of key messages to be communicated by the project.
- Identify the target audiences for the key messages.
- Identify the appropriate channels for communicating the relevant key messages to the appropriate target audiences.
- Develop a dissemination strategy designed to communicate the right messages to the right people in the right way at the right time.

### 1.2 Proposed approach

The Hydra dissemination strategy is based on progressively increasing dissemination efforts as project results are obtained, to ensure the widest possible awareness of the Hydra project and favourable conditions to facilitate exploitation after the end of project. The dissemination strategy is intended to optimise the dissemination of project knowledge and results to companies and organisations, which share an interest in the scientific results and the applications or are potential providers of Hydra services. Realising the dissemination strategic objectives will involve the use of the following methods:

Year	Objective	Methods
1	<ol> <li>Create awareness about the Hydra project.</li> <li>Dissemination to strategic boards of participants.</li> </ol>	<ul> <li>Publication of support materials, including project brochure and web site.</li> <li>Attendance at seminars and conferences.</li> <li>Preparation of a Hydra mock-up.</li> <li>Organisation of project seminars.</li> </ul>
2	<ol> <li>Create awareness of emerging scientific results of Hydra</li> <li>Verify opportunities to further apply the Hydra results in other sectoral domains.</li> <li>Prepare to integrate Hydra in emerging SoA infrastructures</li> </ol>	<ul> <li>Aligning events with relevant EU or national projects.</li> <li>Preparation of updated project brochures.</li> <li>Visits to relevant software communities.</li> <li>Web site enrichment.</li> <li>Peer reviewed papers in international journals.</li> <li>Conference and workshop papers.</li> </ul>

A major tool for dissemination will be the availability of the working Hydra middleware and SDK tools towards the end of the project on which demonstrations can be performed.

The dissemination effort for the project began in the first three months with the establishment of a rich web site for publicity and other purposes. This stores technical developments, events and invitations to join dedicated mail groups/interest groups. The site will also display the papers and presentations given by consortium members, whether at European conferences or workshops, as these emerge during the course of the project.

The members of the project will also write academic and technical papers, to be presented at conference and trade shows, and published in leading academic and technical journals.

Hydra will further organise a number of seminars, aimed at R&D personnel in the, software industry, telecommunication and consumer electronics industry, who work on the development and implementation of embedded systems. Additional seminars will be conducted for managers who supervise product development in their companies.

## 2. Dissemination objectives

The dissemination programme for Hydra will be driven from both the European and individual partner country perspectives and will be applied both within each partner country, and across the European community and beyond. Dissemination activities will be led by C-LAB and be undertaken by the consortium as a whole, and by each partner on an individual basis. Hydra's dissemination objectives are to:

- Put in place a programme of activities and supporting materials that will promote it to a wide-ranging pan-European audience encompassing potential customers and service providers, the wider research community and the public at large.
- Identify potential customers and strategic partnerships.
- Inform the target audiences of the existence of the project, and its benefits, use and applicability, illustrating its competitive advantages and the benefits available to potential customers.
- Prepare potential customers, users and collaborators for commercial deployment as Hydra's commercial plans are finalised.

Achieving these objectives will have the benefit of:

- Increasing awareness and support for building the Hydra customer base, providing early market penetration, user awareness and education and first stage contact with potential customers and partners.
- Promotion of the real benefits of the service and understanding of the offering and benefits to reinforce the sales and marketing campaign.
- Promotion of the value of the European Commission's research investment and the beneficial impact that the project's results will have for the European community of citizens.
- European-wide awareness of the service and management of target audience contacts.

## 3. Dissemination strategy

## 3.1 Strategy overview

A comprehensive dissemination programme will be undertaken to achieve these objectives. This will ensure that the project engages with actors both inside and outside the research community and with the public as a whole. The dissemination programme will encompass general awareness-raising together with the specific marketing activities necessary to prepare for and undertake a commercial deployment of the appropriate Hydra results. Promotional activity will take full account of the commercial, geographical and cultural differences in each of the target markets.

The programme will promote the project to a wide audience encompassing the:

- Research and wider scientific community, including peer projects
- Prospective customer base
- General public

These are discussed in more detail in the relevant section below.

The programme will use a wide range of dissemination channels for reaching these target audiences, including:

- Events and exhibitions
- Advertisements and notices in journals and newspapers
- Newsletters, leaflets and brochures
- Participation at sector-relevant exhibitions and conferences
- Participation at EC events
- Scientific papers, journal articles, press releases
- Mail-shots

Again these are discussed in more detail in the relevant section below.

The consortium will not only target events within the relevant research communities but also events that are likely to attract a wider interest from the European Community of citizens. One of the main channels for communication will be a public web site, which will be regularly updated as progress is made, deliverables produced and milestones achieved. This will be accessible by persons both inside and outside the research community.

The project will maintain a contacts database which will be used to distribute publicity material throughout the whole life of the project. The database will identify organisations and individuals and the appropriate means of communicating with them. This will include membership of the research community and the wider public as appropriate.

The consortium will focus every effort on ensuring the widest possible dissemination of the project to a more public audience through:

- Free access to a Hydra public website with the facility to provide feedback to the consortium
- Publicity, such as adverts, targeted through relevant, popular websites, journals and newspapers
- Attendance and exhibiting at events that embrace the wider public and not just the research community
- The display of notices and issue of publicity materials to their public contacts by the partners

## 3.2 Dissemination responsibilities

The following table summarises the dissemination responsibilities for each partner.

Partner	Responsibility
CIL	Dissemination planning and support to Siemens Business Services with consortium dissemination activities
CNET	Lead in technical dissemination activities to the technical business community
FIT	Support to UR for dissemination activities to the technical scientific community, particularly in the middleware domain
SIT	Support to UR for dissemination activities to the technical scientific community, particularly in the security domain
IN-JET	Lead in dissemination to the relevant end user business communities. Lead responsibility for project web site.
PRIWAY	Support to CNet for technical dissemination activities to the technical business community, particularly in the security domain
T-CON	Support to CNet for technical dissemination activities to the technical business community, particularly in the communications domain
TID	Support to CNet for technical dissemination activities to the technical business community, particularly in the communications domain
UAAR	Support to CNet for technical dissemination activities to the technical business community, particularly in the embedded Aml domain
INN	Support to C-LAB particularly in the field of dissemination to SMEs
UR	Support to CNet for technical dissemination activities to the technical business community, particularly in the security domain and lead in training activities to support dissemination
MESH	Support to CNet for technical dissemination activities to the technical business community, particularly in the Grid and network addressing domains
C-LAB	Lead in all dissemination activities
TUK	Support to UR for dissemination activities to the technical scientific community, particularly in the knowledge modelling and management domains

#### 3.3 Dissemination management

The over all management of consortium dissemination activities is the responsibility of the Dissemination Manager.

#### 3.4 Dissemination activities

The project website was established at the beginning of the project. This site provides continuously updated information about the project as well as relevant news and events. The project website can be viewed at <a href="http://www.hydra.eu.com">http://www.hydra.eu.com</a>.

The project will be presented at the numerous conferences across Europe in all relevant domains, including embedded systems, trust and security ubiquitous computing, pervasive computing and knowledge management.

It will also be presented at seminars and conferences relevant to the specific user domains of the project; healthcare, facilities management and agriculture.

The results of the scientific research work will be submitted for publication to international, peer-reviewed journals and conference proceedings.

Partners in the consortium will disseminate the project within their own organisations through their internal bulletins and by presentations at internal and external meetings to relevant target audiences.

A brochure will be produced to disseminate the objectives and the future results. This will be reviewed and updated as the project progresses to ensure it provides the most effective possible dissemination mechanism.

The project will also produce a quarterly newsletter describing obtained results and continuing activities.

The Consortium will participate in relevant clustering events and conferences organised by the Commission to present the progress of the project and to carry out collaboration with other related projects. The web site also carries a comprehensive list of other EU projects that are relevant to Hydra.

## 4. Target audiences

## 4.1 Research and wider scientific community

Given the broad scope of the Hydra project it is not surprising that the relevant research and scientific community needs to be widely defined for dissemination purposes. At this stage of the project they can best be defined in relatively broad groups across the following key areas of RTD within the project as follows:

- Embedded autonomic Am1 architecture
- Wireless networks and devices
- SoA and MDA middleware
- Trust, privacy and security

In addition dissemination activities will target other relevant research initiatives having potential synergies with the Hydra project and standardisation bodies and initiatives where Hydra has the potential to make a contribution. These two aspects of dissemination are discussed in more detail below.

#### 4.2 Relationships to other relevant initiatives

The Hydra project will also continue to link to other relevant international activities and existing research initiatives in the same field. In particular the project will disseminate to the following international initiatives:

#### 4.2.1.1 eu-DOMAIN

"enabling users for Distance-working & Organizational Mobility using Ambient Intelligence service Networks" (WWW.EU-DOMAIN.EU.COM)

eu-DOMAIN is a generic ambient intelligence platform for automatic offering and contracting of mobile web services across heterogeneous networks. It explores semantic web technologies in the context of ambient intelligence systems for home health care and facility management. The project objectives will be implemented using various foundational platforms.

Several Hydra partners are also involved in the eu-DOMAIN project and this will ensure a close synergy between the activities of the two projects.

#### 4.2.1.2 PalCom

"Palpable computing" (WWW.IST-PALCOM.ORG)

The PalCom project (IST-2003-002057) researches and develops a new perspective on ambient computing named "palpable computing". "Palpable" denotes that systems are capable of being noticed and mentally apprehended. The project develops an open architecture and a conceptual framework for palpable computing through a user-centred, iterative design process.

The open architecture developed will be researched as a basis for the semantic platform developed in the Hydra project and this will be investigated in workpackage WP 6. There are strong existing links with the PalCom project, where UAAR are the project coordinator.

#### 4.2.1.3 DIP

"Data, Information, and Process Integration with Semantic Web Services" (WWW.DIP.SEMANTICWEB.ORG)

DIP's objective is to develop and extend Semantic Web and Web Service technologies in order to produce a new technology infrastructure for Semantic Web Services (SWS) - an environment in

which different web services can discover and cooperate with each other automatically. DIP's long-term mission is to deliver the enormous potential benefits of Semantic Web Services to e-Work and e-Commerce.

The work of the DIP project will be reviewed as part of task T6.2 and its results used to inform the prototype design work in T6.3.

#### 4.2.1.4 Knowledge Web

The mission of Knowledge Web is to strengthen the European industry and service providers in one of the most important areas of current computer technology: Semantic Web enabled eWork and eCommerce. The project concentrates its efforts around the outreach of this technology to industry. Naturally, this includes education and research efforts to ensure the durability of impact and support of industry. Knowledge Web is a 4-year Network of Excellence project, which began in January 2004.

The work of the Knowledge Web NoE will also be reviewed as part of task T6.2 and any relevant results used to direct future work in WP 6.

#### 4.2.1.5 UBISEC

"Ubiquitous Networks with a Secure Provision of Services, Access, and Content Delivery" (JERRY.C-LAB.DE/UBISEC/HOME2.HTML)

The mission of the EU-funded project UBISEC is to address new business areas and technologies originating from the integration of public wide area networks, and private corporate and home/SOHO local area networks. UBISEC is aiming at an advanced infrastructure for large-scale mobility and security based on SmartCard technologies for context-aware and personalised authorisation and authentication services in heterogeneous networks.

The work of the UBISEC project will be reviewed as part of task T7.2 with a view to identifying relevant results that will further direct the development of the Hydra security model. This review will also be used to identify appropriate opportunities for the dissemination of Hydra results to and through UBISEC.

#### 4.2.1.6 Simplicity

"Secure, Internet-able, Mobile Platforms Leading Citizens Towards simplicity" (WWW.IST-SIMPLICITY.ORG)

The project is focusing on basic concepts to address the issues of increased complexity at the terminal and the network in wireless communication systems beyond 3G. The projects main objective is to design, develop, and evaluate an architectural framework supporting simple customisation of terminals, services and networks.

At this stage it is not clear what, if anything, this initiative will be able to contribute to the realisation of the Hydra vision but it will be reviewed in T5.1 to identify whether its results will help to address some of the outstanding networking issues in WP 5 and whether Hydra can contribute to the realisation Simplicity's objectives.

### 4.2.1.7 NESSI

"Networked European Software and Services Initiative" (WWW.NESSI-EUROPE.COM)

NESSI is an EU initiative aiming at developing a global, service oriented infrastructure based on open source software. Thirteen software and telecommunications companies are launching a consortium to work together to develop new software and services based on open standards. Partners are telecom companies from UK, Italy, Spain and Finland and large ICT companies like IBM, Hewlett-Packard, SAP, Atos Origin and Thales Group as well as Siemens.

Hydra will establish bi-lateral communications with NESSI to ensure that the Hydra project is aware of all relevant activities and results being produced out of the NESSI initiative and that NESSI is used as an effective dissemination, and potential take-up, channel for Hydra results.

#### 4.2.1.8 WWRF

"Wireless World Research Forum" (WWW.WIRELESS-WORLD-RESEARCH.ORG)

The objective of this new forum, established in 2001, is to formulate visions on strategic future research directions in the wireless field, among industry and academia, and to generate, identify, and promote research areas and technical trends for mobile and wireless system technologies. The WWRF has issued a comprehensive "Book of visions 2004" which addresses many of the aspects of Hydra for the wireless networks. (A new version will be published in April 2006.)

Closely related to the WWRF is the Wireless World Initiative (WWI). The WWI comprises four major Integrated Projects (IPs) of EU-FP6, namely "Ambient Networks", "Mobilife", "E²R", and "WINNER" as well as the coordinating action "MOCCA". Since the outcome of those projects are major precursors for several objectives of Hydra in the future joint workshops between those groups of experts are planned following the example of WWRF-SIG2 and SecurIST in May 2006.

Hydra has already established a specific working relationship with the WWRF-SIG2 "Security & Trust", as one of the researchers from SIT has the chair of this SIG. Moreover, Fraunhofer SIT and FIT continuously and sustainable contribute already to WWRF's working groups "1 – Human Perspective and Service Concepts" and "2 – Service Architecture". In the course of the project Hydra will have additional impact on working group "3 – Co-operative and Ad-hoc Networks". These links will be used to establish contact and maintain dissemination channels with the initiative.

Finally, as the WWRF has established many cross forum activities – e.g. to MITF in Japan, the UMTS Forum in Europe, the NGMC Forum in Korea, and the FuTURE project in China – Hydra has the chance to take advantage of this global network by contributing new ideas and perspectives to the global community of ubiquitous computing and ambient intelligence.

#### 4.2.1.9 ITEA2

"ITEA2: European leadership in software-intensive systems and services" (WWW.ITEA2.ORG)

ITEA2 is a Eureka initiative that is intended to stimulate and support projects that will give European industry a leading edge in the area of software-intensive systems. There are a considerable number of synergies between Hydra and ITEA2 in terms of scope, strategy and sector focus. In view of this links with ITEA2 will be established at project initiation stage and formal channels established for the exchange of information between the two initiatives. As Hydra proceeds the opportunities to undertake joint dissemination work will be explored.

C-LAB is a partner in both ITEA2 and Hydra and will operate as the primary channel of communication between the two initiatives.

#### 4.3 Standards bodies

The objective of the standardisation work in Hydra is to liaise with the appropriate standardisation bodies and initiatives and ensure that the project is building upon available and emerging standards and industry specifications to ensure interoperability and enable quick market take-up. Where these standards are not sufficient or are difficult to apply, Hydra will directly influence and contribute to their extension, or where necessary, propose amendments or even new standards. Impacting on standards is clearly an effort that strongly links to dissemination activities and hence Hydra will also disseminate through SIG workshops and conferences.

Several partners within the Consortium such as FIT, SIT, UR, TID, PRIWAY, C-LAB and TID who are already involved with various standardisation efforts through the appropriate standardisation bodies and taskforces e.g. UR and SIT are contributing to work in the area of semantic-cooperative virtualisation standards through the EU-funded SecureIST taskforce, PRIWAY are pioneering new standards for RFID incorporating security contexts TID is, through its mother company, a member of

the W3C Advisory Committee as well as the deputy director of the ETSI Steering Committee. TID is also a member of OMG. The Hydra dissemination strategy in relation to standardisation will be built upon these relationships in the following way:

#### 4.3.1 Security

Security in systems and platforms are currently a matter of standardisation in a variety of groups. Most important for standardisation are the World Wide Web Consortium (W3C), the Liberty Alliance and the Open Mobile Alliance (OMA). The areas of Hydra contributions to standards in the area of trust, privacy and security will be secure identity management, authentication, security, privacy, trust, profiling, personalisation, and socio-legal standards to serve sector-specific agent based platforms, specifically for multi-agency cooperation, personalisation, secure identity management, authentication, privacy control, security contracting and governance.

Hydra will work through the W3C Web Services Description Working Group and the W3C Semantic Web Services Interest Group to disseminate enhancements to the above standards to enable more powerful semantic-cooperative service discovery, on-the-fly SLA negotiation and security contracting capabilities in the Grid environment. The Liberty Alliance is focussing on distributed trust models and single sign-on issues. Hydra intends to be compatible with the identity management system defined in the Liberty Alliance. Experience reports on the use of these standards for workspaces, and extensions for group-identity will be disseminated by the project as input to the Liberty Alliance in their ongoing efforts, respectively for further standardisation.

#### 4.3.2 Web services

In the Web and Web Services space, standardisation is being driven mainly by multinational IT vendors working through the World Wide Web Consortium (W3C), and the Organization for the Advancement of Structured Information Standards (OASIS). Any contributions realised in this space will comprise specific extensions of standards and profiles for composing specifications to ensure interoperability and will be disseminated via OASIS.

Standards related to ontologies and semantic modelling, such as OWL, and standards concerning coordination of service oriented and distributed applications such as WS-Coordination and WSRF are obviously of particular interest for Hydra. The experience gained from the Hydra RTD efforts will provide input to these standardisation processes and disseminated accordingly.

#### 4.3.3 Grid technologies

The Global-Grid-Forum (GGF), which aims to establish the Global Grid Architecture, although not a standards body in itself, does liaise with W3C, OASIS and IETF to coordinate the development and deployment of standards. In the context of Grid-enabled services provisioning and Grid Compliant Ontology Services there are a number of other standards initiatives of interest generally such as OMA, P3P, Parlay, WWRF, RDF IG, DAWG, OWL, OGSA-DAI, ITU-R, 3GPP, other working groups in IETF, IEEE and ISO and extensions to WS-DAI specifications to support deployment of RDF stores. Hydra will start its standards seeking efforts, through GGF and will participate in the relevant standards fora such as IETF (IP layer), W3C and GGF and OASIS (Business layer) as well as the Industry Alliance for Interoperability (IAI).

Hydra will focus its dissemination activities in this domain through the GGF.

### 4.3.4 W3C Technology and Society

The Hydra project intends to contribute to the W3C work by providing knowledge gained from the design, implementation and user testing, to optimise the standard and to enhance its acceptability for users and application developers. TID is, through its mother company, a member of the W3C Advisory Committee and will take the lead for dissemination in this domain.

#### 4.3.5 OMA (Open Mobile Alliance)

The Open Mobile Alliance is essentially an extension of the WAP-Forum, which aims to increase the market for the mobile industry by removing barriers to interoperability, supporting a seamless and easy to use mobile experience for users, and a market environment that encourages competition through innovation and differentiation. The definition of specific requests for services by mobile and nomadic users will extend the requirements of W3C, leading to optimised architectures in mobile networks. OMA overseas all current work that are related to for example location awareness, terminal profiles, and multimedia content distribution & presentation on mobile devices. Here, in particular, Hydra will contribute with dedicated profiles for context and user models, requirements for the architecture and design guidelines, which will be disseminated through the OMA.

#### 4.3.6 Middleware standards

In this context, specific target standards bodies include ECMA and ETSI. TID is, through its mother company, deputy director of the ETSI Steering Committee and will take the lead in disseminating through this channel. The outcome of Hydra with regards to middleware engineering security will be relevant to software engineering standardisation bodies, such as the OMG SecSIG. The results will complement recent initiatives such as UML-SEC. TID is a member of the OMG.

Due to the shortcomings of current semantic standards for Service Provisioning, it is inevitable that in achieving its objectives, Hydra will make contributions in this area which the consortium fully intends to disseminate as broadly as possible within the relevant standards community.

#### 4.4 Potential customer base

At this stage in the project it is not possible to develop a refined matrix of potential customer target audiences. This will only be possible later in the project when the user applications and business modelling activities have been commenced and the project begins to get a better understanding of the product and services portfolio that will be available to whom both within and outside the selected application domains. It will also be refined further from the business modelling work and the identification of who will benefit and how from the implementation of the Hydra platform and associated services.

However, the project DOW presents a preliminary identification of potential customer groups both for individual project partners and for the project as a whole. These are presented in the table below.

Partner	Opportunity	Vehicle	Target Market
CIL	Support joint ventures with the other project participants to commercialise the Hydra results	Joint venture	All
	Use the partnerships, skills and experience gained from the project to improve own services portfolio  Use these skills together with the Hydra products to develop new joint services	Joint venture Strategic partnerships	Healthcare Financial services Other
CNET	Hydra software components  Hydra platform	CNET  Joint venture	Facilities management Building/construction
FIT/CIT	,		
FIT/SIT	Extended research portfolio in service-based secure mobile applications and knowledge	FIT	Relevant research community
	Privacy enhanced user-centric middleware technologies for mobile users	SIT	AII

Partner	Opportunity	Vehicle	Target Market
IN-JET	Middleware offered together with the Software Development Kit (SDK) for use in the development of networked embedded systems.	IN-JET/Joint venture	Large corporations
	SDK to be installed as a service to be offered to SMEs and other potential customers and bundled with access to the eu-DOMAIN infrastructure.	IN-JET/Joint venture	SMEs
PRIWAY	PRIWAY's Managed Security Service will be adapted to work with and support Hydra middleware especially for security in high-sensitive applications	PRIWAY	Home medication Location-based services
	In addition we will together with customers and partners work to make and market Hydraenabled and Hydra-compliant devices	Joint venture Strategic partners	All
T-CON	Promotion of main results to interested partners in AREA Science Park	Partnerships for specific modules	Various
	Trans-national technological partnerships	Strategic partnerships	European companies integrating various sensors on distributed architectures
	Significant improvement in internal know-how in specific areas of software interfaces, new wireless technologies and interfacing with embedded devices	T-CON	All
TID	Exploitation of the special Hydra network infrastructure and services developed, charging for data traffic and architecture and service maintenance	TID	Existing customers
	New services built using the project's Grid based architecture to offer computing and data sharing on-demand application	TID	Existing and new customers
	TID will use the Hydra middleware for selling new value added services to its customers	TID	Existing customers
	TID will improve its network services so that distributed processing and data sharing will be a key point for some customers increasing the value of the services provided	TID	Existing and new customers
UAAR	Strengthening of strong focus on software engineering for ambient intelligence and embedded systems development	UAAR	Relevant research communities
	Collaboration with the technical partners will strengthen research potential in the areas of security engineering, semantic modelling, and	Strategic partnerships	Relevant research communities
	Grid technology  Graduate courses at the Computer Science	UAAR	Graduate students
	Department on Software Architecture and Pervasive Computing will benefit from the experiences of Hydra through the dissemination of achieved experiences	Strategic partnership	Relevant research communities
	The results of the Hydra project will strengthen the potential for the Alexandra Institute to further interest private companies in research collaboration		

Partner	Opportunity	Vehicle	Target Market
INN	Provision of know-how consultancy for the introduction and the implementation of a framework for intelligent networked embedded systems	INN	Large industries and SMEs in existing customer base including health-care and facility management
	Widen existing client portfolio	INN	Selected potential new customers
UR	Research results of direct benefit to postgraduate teaching and research in the areas of network centric computing and business informatics. At least 3 PhD student projects will be initiated. A new MSc course in Network Centric Computing will be developed  Advanced industrial consultancy in the areas of security and e-business and deployment of insights from the work done in its services for industry and the public sector in particular for ehealthcare@home	UR Strategic partnerships	Relevant student courses  Healthcare Other relevant markets
MESH	Establish Tmem as communication platform for distributed devices and sell Tmem  Use the international contacts and leverage of the Hydra project to expand the usage of Tmem based grid computing solutions  Functional enhancements to current grid products which will expand the potential customer base  Using the distributed caching and data manipulation capabilities of Tmem for efficient real-time distribution and analysis of data  Offer on-line services based on OfficeGrid and Tmem technology, which could include hosted communication and data exchange services for Hydra users	MESH Joint venture  MESH Joint Venture  MESH  MESH  MESH	Device manufacturers and application developers
C-LAB	Enhanced knowledge in the development of new and innovative mobile services for heterogeneous devices  New offerings, solutions and services to enrich C-LAB' portfolio and open up new industry segments and branches and attract new customers  Hydra results are a chance for C-LAB to improve the interconnection of heterogeneous devices in big companies and organizations and therefore to offer improved and enhanced services and solutions to the established customer base	C-LAB Joint venture  C-LAB Joint venture	Healthcare Electronic Home  Manufacturing industries (esp. Automotive), financial sector and public sector.

Partner	Opportunity	Vehicle	Target Market
TUK	The Hydra project results will be integrated into educational activities carried out at the University by the Faculty of Electrical Engineering and Faculty of Economics, both at the postgraduate level and in courses of further professional education. On the level of Master study programme the results will be integrated into the courses "Knowledge Management" and "Knowledge Discovery" delivered by the Faculty of Electrical Engineering and Informatics (the number of students enrolled in these courses varies on the yearly basis, around 40). The results will be integrated also into courses and lectures for PhD students in the study branch of Artificial Intelligence. In parallel to that, the Hydra results will be incorporated into further professional education courses and consultation services to companies (in the	TUK	University students
	area of knowledge technologies, semantic modelling, and semantic web). PhD students (Peter Butka, Jan Hreno, Peter Kostelnik, and Martin Sarnovsky) will be doing research in Hydra related areas and incorporate the achieved results into their PhD theses.	TUK	Research community
	Results of the Hydra project will be used, enhanced and further developed within future national and international R&D projects in the areas of knowledge acquisition, ontology building, rapid annotation of dynamic events and development of hybrid symbolic-subsymbolic systems with cognitive features  TUK is currently working on a project to establish a Science-Technology Park including a Technology Incubator which also opens up	TUK Strategic partners	Industrial and software companies
	an opportunity for commercial exploitation of the project results		

Customer dissemination activities will be focused on these customer target groups, suitably refined as the exploitation activities of the project progress.

## 4.5 General public

In addition to the more specific audiences the Hydra project is also committed to disseminating information about the project and its potential benefits to the wider general public. In order to achieve this objective a specific programme of public awareness activities has been developed and this is presented below.

Activity	Timetable	Rationale	Objectives	Expected Impact
Identification of key possible target audiences for public awareness raising and suitable channels of communication	Month 3	To identify target audiences and channels for broader public dissemination activities	To raise visibility and impact of Hydra activities and results beyond the research community	Greater awareness of Hydra opportunities and benefits across the broadest possible range of communities

Activity	Timetable	Rationale	Objectives	Expected Impact
Development of Hydra web site for "the public"	Month 6	To inform key target public audiences of the development of Hydra and its potential use	To raise visibility and impact of Hydra activities and results beyond the research community	Pan-European public awareness of Hydra and effective handling of enquiries
Press releases to key general press for broad public awareness raising	Month 9	To ensure initial Hydra awareness amongst the general public	Awareness of Hydra in selected general press publications	Early public awareness raising
Production of non-specialist Hydra publicity materials	Month 12 to Month 24	One sheet information folder about the platform to hand out at public events  Production of more sophisticated brochure, information pack, CD-ROM, etc as project progresses  Consideration of public project video in final year of project	Promote the wider public understanding of the full range of Hydra benefits as the project progresses	Increase in awareness and support for building the future user base.
Production of non-specialist Hydra scenarios and case studies	Month 12 to Month 24	Non-specialist scenario illustrations to illustrate service usage and the benefits derived from Hydra	Several different scenario descriptions to provide broad based illustration of Hydra potential in relevant public domains	Promotion of the real potential of Hydra and understanding of the offering and benefits to reinforce the awareness raising campaign

## 4.6 Dissemination channels

During the first two years of the Hydra project the following principal dissemination channels will be employed.

Dissemination Channel	Timetable	Rationale	Objectives	Expected Impact
Development of Hydra project web site	Month 2	To inform key target audiences of the development of the middleware and its potential use by key stakeholders	Growth of number of hits per month from 10 per month in Month 1 to 100 with 10% repeat visits by Month 24	Pan-European awareness of the middleware development and effective handling of enquiries
Introduction of Hydra links and/or pages onto partner web sites	Month 2	To inform key target audiences of the development of the middleware and its potential use by key stakeholders	Contribution to the growth of number of hits on the Hydra web site per month from 10 per month in Month 1 to 100 with 10% repeat visits by Month 24	Pan-European awareness of the middleware and effective handling of enquiries
Existing dissemination channels to identified target communities for awareness raising and suitable channels of communication	Month 6	To identify target audiences and channels for full range of dissemination activities	To raise visibility and impact of Hydra activities and results within the research and target user communities	Greater awareness of Hydra opportunities and benefits across the broadest possible range of relevant target communities

Dissemination Channel	Timetable	Rationale	Objectives	Expected Impact
Press releases to key specialist press such as trade journals for target end-user customer communities	Month 12	To ensure initial Hydra awareness in the key market segments	Awareness of Hydra in the majority of trade journals and relevant market sector publications	Early market penetration, user awareness and education and first stage contact with potential partners
Production of Hydra project information literature	Month 12 to Month 24	One sheet information folder about the middleware to hand out to prospects at events and for mailing purposes  Production of brochure,	Ad hoc use at appropriate events  Mailshot of at least 200	Increase in awareness and support for building the future user base.
		information pack, CD- ROM, etc as project progresses	per month in months 18 to 24 and handouts at least 20 events	
Events	Month 12 to Month 24	To raise the profile in key market segments	10 relevant events (real and virtual) with the objective of obtaining 50 expressions of interest per event	Increase in awareness and support for building the future user base
Scenario descriptions and case studies	Month 12 to Month 24	Scenario descriptions and case studies to illustrate service usage and the benefits derived which would be applicable to Hydra middleware users	3 initial scenario descriptions and case studies to provide broad based illustration of Hydra potential	Promotion of the real potential of the middleware and understanding of the offering and benefits to reinforce the awareness raising campaign
Technical Advisory Board	Month 12 to Month 24	To maximise the potential of external members of the Technical Advisory Board to promote Hydra to target audiences	To ensure TAB members are sufficiently informed to promote Hydra awareness and opportunities	Growth in awareness and understanding of potential of Hydra amongst high value target audiences

## 4.7 Conferences and Publications

Dissemination Channel	Timetable	Rationale	Objectives	Expected Impact
Development of Hydra project web site	Month 2	To inform key target audiences of the development of the middleware and its potential use by key stakeholders	Growth of number of hits per month from 10 per month in Month 1 to 100 with 10% repeat visits by Month 24	Pan-European awareness of the middleware development and effective handling of enquiries
Introduction of Hydra links and/or pages onto partner web sites	Month 2	To inform key target audiences of the development of the middleware and its potential use by key stakeholders	Contribution to the growth of number of hits on the Hydra web site per month from 10 per month in Month 1 to 100 with 10% repeat visits by Month 24	Pan-European awareness of the middleware and effective handling of enquiries

Dissemination Channel	Timetable	Rationale	Objectives	Expected Impact
Existing dissemination channels to identified target communities for awareness raising and suitable channels of communication	Month 6	To identify target audiences and channels for full range of dissemination activities	To raise visibility and impact of Hydra activities and results within the research and target user communities	Greater awareness of Hydra opportunities and benefits across the broadest possible range of relevant target communities
Press releases to key specialist press such as trade journals for target end-user customer communities	Month 12	To ensure initial Hydra awareness in the key market segments	Awareness of Hydra in the majority of trade journals and relevant market sector publications	Early market penetration, user awareness and education and first stage contact with potential partners
Production of Hydra project information literature	Month 12 to Month 24	One sheet information folder about the middleware to hand out to prospects at events and for mailing purposes	Ad hoc use at appropriate events	Increase in awareness and support for building the future user base.
		Production of brochure, information pack, CD- ROM, etc as project progresses	Mailshot of at least 200 per month in months 18 to 24 and handouts at least 20 events	
Events (see separate table below)	Month 12 to Month 24	To raise the profile in key market segments	10 relevant events (real and virtual) with the objective of obtaining 50 expressions of interest per event	Increase in awareness and support for building the future user base
Scenario descriptions and case studies	Month 12 to Month 24	Scenario descriptions and case studies to illustrate service usage and the benefits derived which would be applicable to Hydra middleware users	3 initial scenario descriptions and case studies to provide broad based illustration of Hydra potential	Promotion of the real potential of the middleware and understanding of the offering and benefits to reinforce the awareness raising campaign
Technical Advisory Board	Month 12 to Month 24	To maximise the potential of external members of the Technical Advisory Board to promote Hydra to target audiences	To ensure TAB members are sufficiently informed to promote Hydra awareness and opportunities	Growth in awareness and understanding of potential of Hydra amongst high value target audiences

## 5. Completed activities

## 5.1 Website and logo

The project website has been implemented and will be used to disseminate the project's results and collect feedback from the target audiences.

The implementation of a project website included agreement and introduction of the project logo. Several different graphical lines where developed, three logos designed, and this is the logo that the partners selected for Hydra.



#### 5.2 Partner dissemination activities

To date the following dissemination activities have been undertaken by project partners:

Date	Type of Dissemination Activity	Type of Audience	Countries Addressed	Size of Audience	Partners Involved
30-07-06	Web site. News about Hydra.	It experts	Global	2000-3000	CNet
07-06	Updated T-Connect Web site with Hydra project description	Web surfers, company partners	Global	Global	TCON
07-06	Updated T-Connect Web site with Hydra project description	Web surfers, company partners	Global	Global	TCON
Since 07-06	Presentation of Hydra at C-LAB website and announcements of Hydra workshops	Customers, Employees, Researchers	All	undefined	Siemens C-LAB
08-06	Company-Internal Presentation	Employees of Siemens C- LAB and University of Paderborn	Germany	60	Siemens C-LAB
16-07-06	Presentation of Hydra to the members of Siemens Mobility Lab	Siemens employees	Germany	4	C-LAB

	(mLab)				
08-06	Article about Hydra project start in Siemens' internal newsletter	Siemens employees	Germany	8.000	C-LAB
06-09-06	FP7 Kick-off	General	Denmark	1100	IN-JET
21-09-06	IST2006	EU network	EU	1400	IN-JET
21-09-06	Presentation of Hydra to Siemens key accounters for T- Mobile	Siemens employees	Germany	3	C-LAB
01-10-06	Fraunhofer FIT Web site with Projects (German / English)	Open	Open	N/A	FhG-FIT
05/06-10-06	Fraunhofer Kick Off for 7. FRP	Fraunhofer internal	Germany	200	FhG-FIT
17-10-06	International smart home workshop	International experts of smart home domain	Denmark, Italy, Germany	14	C-LAB, In-Jet Innova
21-10-06	Meeting	Danish Electricity Saving Trust	Denmark	3	Mesh
26-10-06	Meeting with Swedish Terminology Center. Presentation and discussion regarding ontologies for devices.	Terminology experts	Sweden	1	CNet
HiCo - Hi tech integrated Co-operation for crossborder economic growth and SME competitiveness increase	Description of project vision, outcomes and future benefits of the technologies developed	IT managers of a Slovenian company working with ZigBee technologies	Slovenia	2 people	TCON
10-06	Local Web site (in Slovak)	Open	Open	N/A	TUK
01/02-11-06	Sensor Networks	EU Project FP6-004400		None – flight cancelled last minute	Priway

11/12-11-06	Id World Milan	Conference  Commercial + Government officials	Broad	Approx 300	Priway
15/16-11-06	EU-US Summit on Cybertrust	Highlevel experts & officials	US + EU	150	Priway
16-11-06	International Workshop Agriculture	International experts of agriculture domain	Denmark, Italy, Germany	15	C-LAB, In-Jet Innova
21-11-06	IST2006	EU network	EU	1500	FhG-FIT
26-11-06	Article in Fyns Stiftidende	IT focus in daily newspaper	Denmark	'000s	Mesh
28/29-11-06	1st Workshop on Intelligent and Knowledge oriented Technologies (WIKT 2006)	Researches, PhD. students	Slovakia	40	TUK
29-11-06	FP6 experience	Academia	Denmark	40	IN-JET
30-11-06	FP6 experience	Academia	Denmark	40	IN-JET
11-06	External workshop (Komlalt)	Danish industry	Denmark	25	UAAR
		Danish researchers			
11-06	Notice on HYDRA at UAAR web site	Open	Open	N/A	UAAR
12-06	Closed workshop (focus group)	Developers/ Researchers	Local	3	UAAR
12-06	Presentation at international wireless theme day	Wireless Developers	Denmark, Germany	50	UAAR
10-01-07	Meeting with Swedish Computer Society. Presentation Hydra concept and discussion regarding arrangements of future seminar focusing on semantic technologies.	IT project leaders, system architects	Sweden	1	CNet

10-01-07	EU ICT Security & Dependability Taskforce	Public	EU		Priway
	Dependability Taskforce	Recommendation Report	IST		
		Керогі	Public		
24-01-07	FP7 and Perspectives of participation of Slovak subjects (FP6 experience and information on running projects)	Academia, Industry, Government	Slovakia	200	TUK
24/25-01-07	Exchange with other scientists about Hydra project idea at SMS-workshop	Members of the SMS- research project	Different European countries	Ca. 30	C-LAB
01-07	Presentation to ZigBee Alliance member Develco	Wireless Developers	Denmark	3	UAAR
01-02-07	ICT Proposers' Day Cologne;	Academia & Industry	Germany	3000	FhG-FIT
15-02-07	Phone meeting with Ericsson. Presentation of Hydra concept and discussion regarding potential cooperation	Engineers	Global	5	CNet, In- Jet
19-02-07	FP7 preparation	Academia & Industry	Denmark	35	IN-JET
23-02-07	Press coverage. Article published in CIO, leading computer magazine in Sweden.	Swedish Top executives, CIO:s in larger companies and organisation	Sweden	15000	CNet
02-07	Description of the project innovative outcomes and user scenarios	Consultant Engineer working for a multi-utility	Italy	1 person	TCON

# 6. Future Plans

The already planned future dissemination activities for Hydra are set out in the following table.

Date	Type of Dissemination Activity	Type of Audience	Countries Addressed	Size of Audience	Partners Involved	Conference participation
13-03-07	TACD Consumer Conference	Intl. consumer organisation	Transatlantic	100+	Priway	Paper to be presented
26-03-07	SRC07	EU Conference	EU Wide	1000	Priway	Paper to be presented
Q2-07	DAIMI-internal website	Researchers	Open	N/A	UAAR	N/A
30-04-07	Press Release	IT experts	Sweden	15000	CNet	N/A
30-04-07	Update of Web site	IT experts	Sweden	2000-3000	CNet	N/A
13/16-05-07	Pervasive 2007, Toronto, Ontario, Canada	Research, Industry	Worldwide	250	FhG-FIT	Conference attendance
24/27-05- 07	Conference – International Carpathian Control Conference (ICCC'2007)		International	N/A	TUK	Paper to be presented
04/05-06-07	ARTEMIS Annual Conference 2007, Berlin	Industry in ES design	Germany	150	FhG-FIT	Paper to be presented
13/15-06-07	18 <sup>th</sup> WWRF Meeting, Espoo, Finland	Industry in ES design	Worldwide	200-300	FhG-FIT FhG-SIT UR	Conference attendance
30-06-07	Launch of possible cooperation project with industry	Engineers	Global	200-300	CNet, In- Jet	N/A
06-07	Healthcare ES	Politicians, clinicians	Denmark Sweden	200-300	In-Jet, CNET	N/A

06-07 Mobile business- Rome	One to one meetings with mobile companies and brief project presentation	IT experts	Italy	2/3 companies	TCON	N/A
20-07-07	Conference Paper , (Security, Privacy and Trust in Pervasive and Ubiquitous Computing , Istanbul, Turkey)	Technical	multiple	large	UR	Paper to be presented
Q3-07	First HYDRA papers	Researchers	Open	N/A	UAAR (+ other partners as relevant)	Target of 2 peer reviewed papers to be presented during this period
21/24-08- 07	Conference Paper, (IEEE Conference on Embedded and Real-Time Computing Systems and Applications, Daegu, Korea)	Technical	multiple	large	UR	Paper to be presented
30-09-07	Conference on semantic technology for devices.	IT experts	Sweden	200	Cnet	Paper to be presented
10 Or 11- 07 (to be defined) – Hi-Tech SMEs meeting event	Presentation of the project activities and outcomes	IT experts, managers	Italy	5/10 companies	TCON	Paper to be presented
08/11-10-07	MASS 2007 – The Fourth IEEE International Conference on Mobile Ad-hoc and Sensor	Research, Industry	Europe	150	FhG-FIT	Paper to be presented

	Systems					
30-10-07	Update of Web site	IT experts	Sweden	2000-3000	Cnet	
09/11-07-07	SASO 2007 International Conference on Self-Adaptive and Self-Organizing Systems; Boston, Mass., USA	Research, Industry	Worldwide	200	FhG-FIT	Conference attendance
Mid 07	IEEE Embedded Systems Forum	The IEEE Embedded Systems Forum is a global collaboration an discussion area for people interested in embedded systems design and development.	Worldwide	200	FhG-FIT	Paper to be presented
17/20-12- 07	Conference Paper (IFIP International Conference on Embedded and Ubiquitous Computing, Taipei)	Technical	multiple	large	TBD	Paper to be presented
End 07	Article in AREA Science Park Magazine	All AREA Science Park tenders	Italy	About 70 companies	TCON	N/A
Q1-08	Second HYDRA papers	Researchers	Open	N/A	All relevant partners	Target of 3 peer reviewed papers to be presented during this period
02-08 Innovaction fair – Udine (Italy)	Presentation of the project	R&D experts, managers, people without technical	Italy, Austria, Slovenia mainly	All attendees coming to the fair (about 40.000 in	TCON	Paper to be presented

		skills		2007)		
03-08	Fair (CEBIT)	Technical/ public	multiple	large	WP7 Partners	Paper to be presented
05-08	Pervasive 2008,	Research, Industry	Worldwide	250	FhG-FIT	Paper to be presented
09	2009 IEEE International Conference on Pervasive Computing and Communications (PERCOM)	Research, Industry	Worldwide	250	FhG-FIT	Paper to be presented
Ongoing	Regular updates about progress on Hydra project on C-LAB website	Customers, Employees, Researchers	AII	undefined	Siemens C-LAB	N/A
Ongoing	Key account presentations esp. with representatives of the branches agriculture, health, smart home	Siemens employees	All, but with focus on Germany	undefined	C-LAB	N/A
Ongoing	Further articles in different Siemens' internal newsletters	Siemens employees	All, but with focus on Germany	App. 30.000	C-LAB	N/A
Ongoing	Presentations to Danish companies (through the Alexandra Institute)	Researchers Industry	Focus on Denmark	N/A	UAAR	N/A
Ongoing	Ongoing Hydra research papers	Researchers	Open	N/A	All relevant partners	Target of 3 peer reviewed papers to be presented during each quarter